

**Document Type:** EA-Administrative Record  
**Index Field:** Final Environmental Assessment  
**Project Name:** Economic Development Grant for Harry A. Martin North Lee Industrial Complex  
**Project Number:** 2023-26

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**HARRY A. MARTIN NORTH LEE INDUSTRIAL  
COMPLEX FINAL ENVIRONMENTAL ASSESSMENT**  
Lee County, MS

**Prepared by:**  
TENNESSEE VALLEY AUTHORITY  
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February 2024

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## CHAPTER 1 – PURPOSE AND NEED FOR ACTION

### Proposed Action and Need

An integral part of Tennessee Valley Authority's (TVA's) mission is to promote economic development in the TVA service area. TVA provides financial assistance to help bring to market new/improved sites and facilities in the TVA service area and position communities to compete successfully for new jobs and capital investment. TVA proposes to provide an economic development grant through InvestPrep funds to the Community Development Foundation (CDF) to assist with the development of the Harry A. Martin North Lee Industrial Complex (Proposed Action or Project).

The area of TVA's Proposed Action (herein referred to as the Project Area) comprises approximately 20.05 acres within the Harry A. Martin North Lee Industrial Complex and is located in Lee County, Mississippi (MS) (Figure 1). TVA funds would be used to assist with the construction of a 100,000 square foot (SF) speculative building, the grading of a 100,000 SF dirt building pad (adjacent to the 100,000 SF speculative building), and construction of a gravel access road that will serve both the speculative building and the dirt building pad.

The primary purpose of the Proposed Action is to enable the CDF to continue to develop the Harry A. Martin North Lee Industrial Complex. The proposed grant to the CDF would assist with improvements to put the site in a more marketable position and allow prospects to better envision development potential. Proposed improvements would lead to an increased probability of achieving TVA's mission of job creation and capital investment. Target markets for the speculative building include advanced manufacturing, aerospace and defense, biotechnology, medical device manufacturing, logistics, technology operations, data centers, and research/design operations. Pursuant to the National Environmental Policy Act (NEPA) and its implementing regulations 40 CFR Parts 1500–1508 and TVA's implementing regulations 18 CFR Part 1318, this environmental assessment (EA) assesses the environmental impacts that would potentially result from TVA's Proposed Action. TVA's decision is whether to provide the requested funding to the CDF.



## Project Area

Harry A Martin N Lee Ind Complex - Site F  
Guntown, MS (Lee Co.)

Prepared 7/5/2023 by



Figure 1. Project Area Map

## CHAPTER 2 - ALTERNATIVES

### Description of Alternatives

Based on internal scoping, TVA has determined that there are two reasonable alternatives to assess under the National Environmental Policy Act (NEPA): the No Action Alternative and the Action Alternative.

#### Alternative A – The No Action Alternative

Under the No Action Alternative, TVA would not provide InvestPrep funds to the CDF. TVA would not be furthering its mission of promoting economic development by assisting the local community to compete successfully for new jobs and capital investment through the Proposed Action. If the CDF were to obtain alternate funding and proceed with its current plans, the overall environmental consequences would be similar to those expected from implementing the Action Alternative.

#### Alternative B – Action Alternative

Under the Action Alternative, TVA would provide InvestPrep funds to the CDF to assist with construction of a 100,000 SF speculative building, grading of a 100,000 SF dirt building pad, adjacent to the 100,000 SF speculative building, and construction of a gravel access road from County Road 2788 to serve both the speculative building and the dirt building pad.

Soil borings would be conducted for the proposed pad, prior to grading. Approximately 25,000 cubic yards of off-site borrow material would be needed to balance the 100,000 SF dirt building pad. The borrow material would be sourced by the contractor from a local permitted commercial borrow pit. Stabilization would occur after grading activities are completed, including re-grassing with seed and fertilizer.

Equipment would be stored adjacent to the proposed 100,000 SF dirt building pad, within the proposed Project Area. Site activities required for the Action Alternative would occur over approximately 9 months and would require a small workforce that would likely be drawn from a local contractor.

The Action Alternative is TVA's preferred alternative.

## **CHAPTER 3 – AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES**

### **Affected Resources**

An internal review process assessed both alternatives and identified all resources present within the Project Area. The review concluded that the Proposed Action Alternative would not significantly affect recreation, managed and natural areas, prime farmland, floodplains, hazardous and solid waste, noise, air quality, visual, transportation, and socioeconomics and environmental justice.

Three recreational areas are located within a 3-mile radius from the Project Area: Natchez Trace Parkway Visitor Center, E.E. Tapper Herring City Park, and Guntown Community Center. Due to the distance from the Project Area and nature of the proposed actions, no long term or cumulative impacts to recreation are expected. No natural areas are located within 3 miles from the Project Area, therefore, no impacts to natural areas are anticipated. There would also be no impacts to prime farmland as prime farmland is not present in the Project Area since the proposed construction activities would occur at an existing industrial site that is not currently being used to for agricultural purposes or to produce livestock or timber.

Based on the Lee County, Mississippi, Flood Insurance Rate Map (FIRM) Panel number 28081C0085E, effective February 3, 2010, the proposed Project Area is located outside 100-year floodplains, which is consistent with Executive Order (EO) 11988. Additionally, based on Profile 02P in the 2013 Lee County, MS, Flood Insurance Study (FIS), the existing ground elevation of the Project Area is 360 feet or higher, which is at least 19 feet higher than elevation 341.3-feet, the 100-year flood elevation of Campbelltown Creek. Lee County is undergoing an update of its FIS and some of its FIRMs; however, the Campbelltown Creek flood elevations are the same in the 2023 Preliminary FIS as the current effective 2013 FIS. The Proposed Action would also be consistent with EO 13690 because the ground elevation is well above the 100-year flood elevation. Therefore, the Proposed Action would have no direct impacts on floodplains and their natural and beneficial value.

Hazardous and solid waste is not expected to be generated from construction activities. Construction equipment would generate some temporary, short-term noise. However, the Project Area is located in a rural setting with no nearby residences. It is expected that construction equipment would have appropriate mufflers to limit noise and that work activities would occur during the day to minimize nighttime impacts when noise carries further. Therefore, impacts from noise are expected to be temporary and minimal.

Air quality impacts from construction activities would be temporary and minor and would not cause exceedance of the applicable National Ambient Air Quality Standards. Visual impacts are not expected as the Proposed Actions would take place at an existing industrial site. An increase in vehicle traffic due to construction activities could cause temporary congestion. However, congestion would be minor and temporary throughout the duration of the Proposed Actions.

The Proposed Action would have a minor positive impact on the local economy and would be unlikely to result in a disproportionate or adverse impact on minority and low-income communities. Therefore, as described throughout this document, environmental effects associated with the Proposed Action on socioeconomics and environmental justice would be minor and would generally be constrained to the Project Area, which is an existing industrial park.

Impacts to the following resources were evaluated in further detail:

- Vegetation (including threatened and endangered species)
- Terrestrial Ecology (including threatened and endangered species)
- Surface water
- Wetlands
- Aquatic Ecology (including threatened and endangered species)
- Archaeological and historic resources

### ***Vegetation (including threatened and endangered species)***

#### Affected Environment

##### Terrestrial Ecology (Plants)

The proposed project would occur in the Blackland Prairie Level IV ecoregion. The Blackland Prairie ecoregion is flat to undulating, with chalk, marl, and calcareous clay soils that tend to shrink and crack when dry and swell when wet. Land cover is mostly cropland and pasture, with small patches of mixed hardwoods, red cedar, and pines (Chapman et al 2004).

Aerial photos, topographic maps, and knowledge of the area indicate that the Project Area is contained entirely in hayfields and cropland. Agriculture areas are dominated by a monoculture of non-native species and tend to have an abundance of invasive species due to the high disturbance intervals.

Executive Order 13112 serves to prevent the introduction of invasive species and provides for their control to minimize the economic, ecological, and human health impacts that those species potentially cause. In this context, invasive species are nonnative species that invade natural areas, displace native species, and degrade ecological communities or ecosystem processes (Miller 2010). Much of the Project Area is most likely currently dominated by invasive species, which reflects the frequency and magnitude of disturbance present on site. The proposed project activities would not contribute to the spread of invasive species.

##### Threatened and Endangered Species (Plants)

A November 2023 query of the TVA Heritage database indicates that two state listed and no federally listed plant species have been previously reported from within a five-mile radius of the proposed Project Area. One federally listed species is known from Lee County, Mississippi. An iPAC query of the Project Area resulted in no federally listed species and no critical habitat for plant species occurring in the Project Area. Habitat for federally threatened Price's potato bean does not occur on site.

Aerial photos, site photos, topographic maps, and knowledge of rare plant habitats of the project area indicate that federally listed or proposed threatened plant species do not occur on the site.

**Table 1. State-listed plant species previously documented from within a five-mile radius and federally listed species occurring in Lee County, MS.**

Common Name	Scientific Name	Federal Status	MS State Rank
Price's Potato Bean	<i>Apios priceana</i>	THR	S1
Plukenet's Cyperus	<i>Cyperus plukenetii</i>	-	S3
Mountain-mint	<i>Pycnanthemum muticum</i>	-	S2S3

Status Codes: THR = Listed Threatened.

State Ranks: S1 = Critically Imperiled; S2 = Imperiled; S3 = Vulnerable

## Environmental Consequences

### *Terrestrial Ecology (Plants)*

Adoption of the Action Alternative would not negatively impact vegetation on any appreciable scale. The herbaceous communities currently found on the site do not support native plant communities with conservation value. The project area would be permanently converted, but these areas do not support unique plant communities. The implementation of the proposed project would have a negligible impact on the terrestrial ecology of the region.

### Threatened and Endangered Species (Plants)

Adoption of the Action Alternative would not impact federal or state-listed plants species because no individual plants or habitat capable of supporting listed species occurs in the project area. Implementation of the Action Alternative would not impact state or federally listed plant species or designated critical habitat.

Under the No Action Alternative, if the CDF were able to secure the funding for the proposed TVA-funded actions described in this EA from outside sources, similar site activities would occur, resulting in similar impacts on vegetation, including threatened and endangered species, as those described above for the Action Alternative. If the CDF were not able to secure the funding for the actions described in this EA, disturbance associated with the Proposed Action would not occur and there would be no impacts on vegetation, including threatened and endangered species.

### ***Terrestrial Ecology (including threatened and endangered species)***

#### Affected Environment

### Terrestrial Ecology (Wildlife)

The Project Area consists primarily of cropland and pasture, with small patches of mixed hardwoods, red cedar, and pine. One wet-weather conveyance is located on site and is bordered by herbaceous and shrubby vegetation. The Project Area is directly surrounded by roads on the northern and eastern border, a narrow tree line on the western border, and an open field on the southern border. The surrounding landscape is predominately



industrial and agricultural land interspersed with residential lots and fragmented deciduous hardwood forest.

Agricultural fields and small areas of herbaceous vegetation offer habitat to a multitude of avian species, such as American kestrel, brown-headed cowbird, common grackle, common yellowthroat, eastern bluebird, eastern kingbird, eastern meadowlark, field sparrow, red-tailed hawk, and red-winged blackbird, among others (National Geographic 2002) (Sargent and Carter 1999). Mammalian species likely present in this habitat include eastern cottontail, Hispid cotton rat, long-tailed weasel, red fox, striped skunk, and white-tailed deer (Whitaker 1996). Reptilian species having the potential to occur in agricultural fields include black racer, eastern garter snake, gray rat snake, and speckled kingsnake (Conant and Collins 1998). A variety of insects can be found utilizing agricultural land (Jankielsohn 2018). American bumble bee, gulf fritillary, green-striped grasshopper, and black swallowtail, among others, have been observed in Guntown, Mississippi and surrounding cities (iNaturalist Community 2023).

Developed and otherwise previously disturbed areas are home to many common species. American crow, American robin, black vulture, Carolina wren, eastern phoebe, northern cardinal, northern mockingbird, and turkey vulture are birds commonly found along roads and in industrial complexes (National Geographic 2002). Mammals found in this habitat type include common raccoon, gray squirrel, and Virginia opossum (Whitaker 1996). The wet weather conveyance and roadside ditches on the site provide potential habitat for amphibians, including American toad and Fowler's toad (Conant and Collins 1998).

No cave records are known within three miles of the Project Area.

No records of heronries or aggregations of other migratory birds have been documented within three miles of the Project Area. A query of the U.S. Fish and Wildlife Service's (USFWS) Information for Planning and Consultation (IPaC) tool on November 28, 2023, identified three migratory bird species of conservation concern (MBCC), American Kestrel, chimney swift, and painted bunting, that could occur within the Project Area. American kestrel can be found in a variety of open habitat, including grasslands, meadows, farmland, and urban areas. They nest in cavities, such as old woodpecker holes, natural tree hollows, or nest boxes (Yeager and Brittingham 2016). Chimney swift are associated with human settlement and primarily use chimneys as nesting habitat; they forage over open terrain, forests, and residential areas (Steeves et al. 2020). Painted bunting prefer scrubby habitat, such as woodland edge, hedgerow, and brushy areas. They build nests in dense shrubs or low vegetation (National Audubon Society 2023).

#### Threatened and Endangered Species (Terrestrial Animals)

Review of the TVA Regional Natural Heritage Database on November 28, 2023, resulted in no state-listed or federally listed species within three miles of the Project Area. No federally listed species or species with federal status have been recorded in Lee County, Mississippi. However, the USFWS has determined that one candidate species (monarch butterfly), one species proposed for federal listing (alligator snapping turtle), and one federally listed species (northern long-eared bat) could occur within the Project Area (Table 2). Species-specific information and habitat requirements are discussed below.

**Table 2. Federally listed terrestrial animal species reported from Lee County, Mississippi <sup>1</sup>**

Common Name	Scientific Name	Status <sup>2</sup>	
		Federal	State (Rank <sup>3</sup> )
<b>Insects</b>			
Monarch butterfly <sup>4</sup>	<i>Danaus plexippus</i>	C	-(S5B)
<b>Reptiles</b>			
Alligator snapping turtle <sup>5</sup>	<i>Macrochelys temminckii</i>	PT	-(S3)
<b>Mammals</b>			
Northern long-eared bat <sup>5</sup>	<i>Myotis septentrionalis</i>	E	E(S1N)

<sup>1</sup> Source: TVA Regional Natural Heritage Database and USFWS Information for Planning and Consultation (IPaC) online system (<https://ecos.fws.gov/ipac/>) extracted 11/28/2023.

<sup>2</sup> Status Codes: C = Candidate Species; E = Endangered; PT = Proposed Threatened.

<sup>3</sup> State Ranks: S1 = Critically Imperiled; S3 = Vulnerable; S5 = Secure; S#B = Rank of Breeding population; S#N = Rank of Non-breeding population.

<sup>4</sup> Historically this species has not been tracked by state or federal heritage programs; USFWS has determined that this species could occur within the Project Area.

<sup>5</sup> Species has not been documented within three miles of the Project Area or from Lee County, Mississippi; USFWS has determined this species has the potential to occur in the Project Area.

Monarch butterflies are currently listed as a candidate species and are not subject to Section 7 consultation under the Endangered Species Act (ESA). The monarch butterfly is a highly migratory species, with eastern United States (U.S.) populations overwintering in Mexico. Monarch populations typically return to the eastern U.S. in April (Davis and Howard 2005). Summer breeding habitat requires milkweed plant species, on which adults exclusively lay eggs for larvae to develop and feed on. Adults will drink nectar from other blooming wildflowers when milkweeds are not in bloom (NatureServe 2023).

Alligator snapping turtles are large freshwater turtles that are confined to river systems that flow into the Gulf of Mexico. This species is typically associated with deep water of large rivers where they feed on fish and other small invertebrates and vertebrates that they can scavenge. These turtles can also be found in small streams, floodplain swamps, and oxbow lakes associated with large rivers. Females and juveniles spend time inland as they move from nest to water. Females are typically generalists when it comes to nest site selection; however, they appear to like some canopy cover. Nest sites are typically found between 8 to 72 feet from water but have also been found more than 500 feet away. Nesting occurs from May to July, and hatchlings emerge between 100-150 days later depending on ambient temperature (USFWS 2021).

The northern long-eared bat predominantly overwinters in large hibernacula such as caves, abandoned mines, and cave-like structures. During fall and spring, they utilize entrances of caves and surrounding forested areas for swarming and staging. In summer, northern long-eared bats roost individually or in colonies beneath exfoliating bark or in crevices of both live and dead trees (typically greater than three inches in diameter). Northern long-eared bats are thought to be more opportunistic in roost site selection than Indiana bats. This species also roosts in abandoned buildings and under bridges. Northern long-eared bats

emerge at dusk to forage below the canopy of mature forests on hillsides and roads, and occasionally over forest clearings and along riparian areas (USFWS 2022).

### Environmental Consequences

#### Terrestrial Ecology (Wildlife)

The Proposed Action would result in the displacement of wildlife (primarily common, habituated species) currently using the area. Direct effects to some individuals could occur if those individuals are immobile during the time of habitat removal (e.g., during breeding, nesting, or hibernation seasons). Habitat removal likely would disperse mobile wildlife into surrounding areas in attempts to find new food resources, shelter, and to reestablish territories. Due to the low quality of habitat present within the Project Area and the amount of similarly suitable habitat in areas immediately adjacent to the Project Area, populations of common wildlife species are not likely to be impacted by the Proposed Action.

Suitable nesting habitat for American kestrel and chimney swift is not available within the Project Area. Suitable nesting habitat for painted bunting is available within the Project Area in shrubby vegetation along the wet-weather conveyance. If nesting occurs within the Project Area while Proposed Actions are ongoing, the Project may destroy nests, eggs, or juveniles of this species; however, loss of these individuals would not significantly impact populations of painted bunting. Outside of nesting season, any other MBCC that may happen upon the Project Area would be mobile and expected to flush if disturbed. Similarly suitable nesting and foraging habitat is available across the adjacent landscape such that disturbed individuals could find alternative habitat nearby. Proposed project activities would not significantly impact populations or aggregations of migratory birds.

Under the No Action Alternative, if the CDF were able to secure the funding for the proposed TVA-funded actions described in this EA from outside sources, similar site activities would occur, resulting in similar impacts on terrestrial wildlife or their habitats as those described above for the Action Alternative. If the CDF were not able to secure the funding for the actions described in this EA, disturbance associated with the Proposed Action would not occur and there would be no impacts on terrestrial wildlife or their habitats.

#### Threatened and Endangered Species (Terrestrial Animals)

The open field that makes up the bulk of the Project Area contains flowering plant species that may provide suitable foraging habitat for adult monarchs. Based on evaluation of aerial photographs of the Project Area, abundant milkweeds suitable for developing larvae are not available. Proposed actions would not jeopardize the continued existence of monarch butterflies.

Suitable nesting habitat for alligator snapping turtle is not available within the Project Area. Proposed actions would not jeopardize the continued existence of alligator snapping turtle.

No caves are known within three miles of the Project Area and no northern long-eared bat hibernacula are known within five miles of the Project Area. No trees greater than three inches in diameter are proposed for removal. Foraging habitat for northern long-eared bat is available along the tree line on the western border of the Project Area and over the wet-weather conveyance.

Activities associated with the project actions (including stabilization and grading) were addressed in TVA's programmatic consultation with the USFWS on routine actions and federally listed bats in accordance with Endangered Species Act (ESA) Section 7(a)(2). For those activities with potential to affect bats, TVA committed to implement specific conservation measures when impacts to federally listed bat species are expected. These activities and associated conservation measures are identified in the TVA Bat Strategy Project Screening Form (Attachment A) and must be reviewed and implemented as part of the project actions. With the use of these identified conservation measures, the proposed actions would not significantly impact northern long-eared bat.

Under the No Action Alternative, if the CDF were able to secure the funding for the proposed TVA-funded actions described in this EA from outside sources, similar site activities would occur, resulting in similar impacts on threatened and endangered animal species or their habitats as those described above for the Action Alternative. If the CDF were not able to secure the funding for the actions described in this EA, disturbance associated with the Proposed Action would not occur and there would be no impacts on threatened and endangered animal species or their habitats.

### ***Soil Erosion and Surface Water***

#### **Affected Environment**

The proposed project is located in the Southeastern Plains ecoregion, characterized with little to moderate relief resulting in low gradient streams and drainages. One ephemeral/wet-weather conveyance and no other aquatic features are located on site (Figure 2). This project area drains to streams within the Twentymile Creek watershed (0316010103 10-digit hydrologic unit code [HUC]) inside the Upper Tombigbee sub-basin (03160101 8-digit HUC).

Precipitation in the general region of the Project Area averages 55 inches per year. The wettest month is December with an average 6.3 inches of precipitation, and the driest month is September with an average 3.4 inches. The average annual air temperature is 62 degrees Fahrenheit, ranging from an average annual low of 51 degrees Fahrenheit to an average annual high 73 degrees Fahrenheit (US Climate Data 2023). Stream flow varies with rainfall and averages about 20.49 inches of runoff per year, or approximately 1.51 cubic feet per second, per square mile of the Upper Tombigbee drainage system (USGS 2008).

The federal Clean Water Act requires all states to identify all waters where required pollution controls are not sufficient to attain or maintain applicable water quality standards and to establish priorities for the development of limits based on the severity of the pollution and the sensitivity of the established uses of those waters. States are required to submit reports to the USEPA. The term "303(d) list" refers to the list of impaired and threatened streams and water bodies identified by the state. The ephemeral/wet weather conveyance on site would be tributary to the Tombigbee River, which is on the 303(d) list for biological impairment (MDEQ 2022).

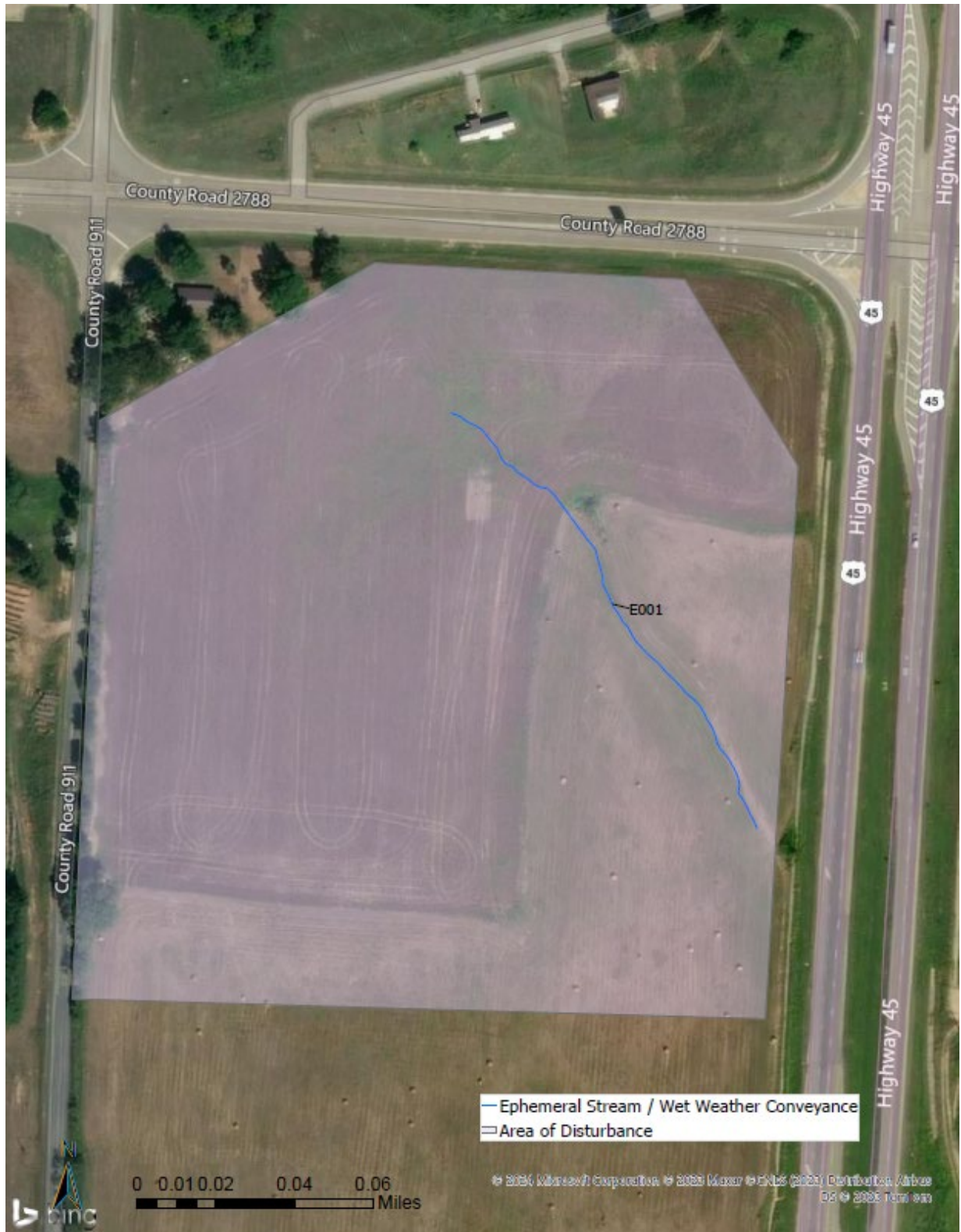


Figure 2. Aquatic Features Map

### Environmental Consequences

Proposed project development would result in permanent loss of the ephemeral/wet-weather conveyance feature on site. Impacts to this conveyance feature shall comply with all regulatory requirements to ensure no alterations to downstream, off-site hydrology result. Site plans shall be designed for stormwater management to ensure off-site runoff is managed appropriately. In addition, impervious buildings and infrastructure prevent rain from percolating through the soil and result in additional runoff of water and pollutants into storm drains, ditches, and streams. This project would increase impervious flows in the area. All flows would need to be properly treated with either implementation of the proper best management practices (BMPs) or a drainage system that could handle increased flows prior to discharge.

Grading and construction activities have potential to temporarily affect surface water via stormwater runoff. Soil erosion and sedimentation can clog small streams and threaten aquatic life. CDF, or its contractors, would comply with all appropriate federal, state, and local permit requirements. Appropriate BMPs would be followed, and all proposed project activities would be conducted in a manner to ensure that waste materials are contained, and the introduction of pollution materials to the receiving waters would be minimized. Coverage under a construction stormwater general permit (also known as a National Pollutant Discharge Elimination System (NPDES) permit) would be required in Mississippi. This permit also requires the development and implementation of a Storm Water Pollution Prevention Plan (SWPPP). The SWPPP would identify specific BMPs to address construction-related activities that would be adopted to minimize storm water impacts. Additionally, BMPs described in the Mississippi Handbook for Erosion Control, Sediment Control, and Stormwater Management on Construction Sites and Urban Areas (MDEQ 2011) would be used to avoid contamination of surface water downstream of the project area.

Portable toilets would be provided for the construction workforce as needed. These toilets would be pumped out regularly, and the sewage would be transported by tanker truck to a publicly-owned wastewater treatment works that accepts pump out. Equipment washing and dust control discharges would be handled in accordance with BMPs described in the SWPPP for water-only cleaning. Proper implementation of these controls is expected to result in only minor temporary impacts to surface waters. The operations of the proposed investment property would not be expected to produce a process wastewater stream. Therefore, impacts to soil erosion and surface water would be minor and temporary.

Under the No Action Alternative, if the CDF were able to secure the funding for the proposed TVA-funded actions described in this EA from outside sources, similar site activities would occur, resulting in similar impacts on soil erosion and surface water as those described above for the Action Alternative. If the CDF were not able to secure the funding for the actions described in this EA, disturbance associated with the Proposed Action would not occur and there would be no impacts on soil erosion and surface water.

## **Wetlands**

### Affected Environment

Wetlands are those areas inundated or saturated by surface or groundwater such that vegetation adapted to saturated soil conditions are prevalent. Examples include bottomland forests, swamps, wet meadows, isolated depressions, and fringe wetlands along the edges of watercourses and impoundments. Wetlands provide many societal benefits including toxin absorption and sediment retention for improved downstream water quality, storm water attenuation for flood control, shoreline buffering for erosion protection, and provision of fish and wildlife habitat for commercial, recreational, and conservation purposes. Therefore, a wetland assessment was performed to ascertain wetland presence, condition, and extent to which wetland functions may be provided on site.

A field survey was conducted on September 28, 2023, within the proposed Project Area. No wetlands were identified within the review area footprint for the proposed project. The Soil Survey Geographic Database (SSURGO) indicates moderately well-draining soil that is not hydric; no NWI features are mapped within the proposed project area; aerial imagery indicates upland farm field; and USGS topography indicates relatively flat topography. Wetland determinations were performed according to US Army Corps of Engineers (USACE) standards (Environmental Laboratory 1987, USACE 2010), which require documentation of hydrophytic vegetation (Lichvar et al. 2016), hydric soil, and wetland hydrology. No hydric soil, wetland hydrology, or hydrophytic vegetation were identified in combination during the field survey. Therefore, no wetlands are present, and no wetland impacts are anticipated to result from the Proposed Action.

### Environmental Consequences

Activities in wetlands are regulated by state and federal agencies to ensure no net loss of wetland resources. Under Clean Water Act (CWA) §404, activities resulting in the discharge of dredge or fill material to waters of the U. S. (WOTUS), including wetlands, must be authorized by the U.S. Army Corps of Engineers (USACE) through a Nationwide, Regional, or Individual Permit to ensure no more than minimal impacts to the aquatic environment. Section §401 of the Clean Water Act requires state water quality certification for projects in need of USACE approval. In Mississippi, the Mississippi Department of Environmental Quality (DEQ) is responsible for issuance of water quality certifications pursuant to Section 401. Lastly, Executive Order 11990 requires federal agencies to avoid construction in wetlands and minimize wetland degradation to the extent practicable.

Since no wetlands currently exist within the proposed project area, no wetlands are anticipated to be affected. Best management practices, including erosion control measures, would be in place to ensure sedimentation or other indirect wetland impacts does not affect wetland features downstream of the construction site (TVA 2022). Therefore, with wetland avoidance and best management practices in place, no significant wetland impacts are anticipated to result from the Proposed Action.

Under the No Action Alternative, if the CDF were able to secure the funding for the proposed TVA-funded actions described in this EA from outside sources, similar site activities would occur, resulting in similar impacts on wetlands as those described above for the Action Alternative. If the CDF were not able to secure the funding for the actions

described in this EA, disturbance associated with the Proposed Action would not occur and there would be no impacts on wetlands.

### ***Aquatic Ecology (including threatened and endangered species)***

#### Affected Environment

The proposed project is in Lee County, Mississippi within the Southeastern Plains ecoregion. This project area drains to streams within the Twentymile Creek (0316010103) 10-digit HUC watershed. A query of the TVA Natural Heritage and USFWS iPaC databases indicated no state or federally listed aquatic species as occurring within this watershed. Field surveys conducted by TVA qualified hydrologic professionals indicated that one wet-weather conveyance/ ephemeral stream occurred within the project footprint.

#### Environmental Consequences

Construction activities have the potential to temporarily affect surface water via stormwater runoff. Soil erosion and sedimentation can clog small streams and threaten aquatic life. Contractors would be responsible for complying with all appropriate federal, state, and local permit requirements. BMPS outlined in these permit requirements would be followed, and all proposed project activities would be conducted in a manner to ensure that waste materials are contained, and the introduction of pollution materials to the receiving waters would be minimized.

No state or federally listed aquatic species or designated critical aquatic habitat occurs within the Twentymile Creek (0316010103) 10-digit HUC watershed. The ephemeral stream documented in the project area only contains water directly after rain events and would not be capable of supporting sensitive aquatic species. Best management practices would be implemented prior to any ground disturbing activities. Therefore, no significant impacts to aquatic ecology, including threatened and endangered species, are anticipated to result from the Proposed Action.

Under the No Action Alternative, if the CDF were able to secure the funding for the proposed TVA-funded actions described in this EA from outside sources, similar site activities would occur, resulting in similar impacts on aquatic ecology, including threatened and endangered species, as those described above for the Action Alternative. If the CDF were not able to secure the funding for the actions described in this EA, disturbance associated with the Proposed Action would not occur and there would be no impacts on aquatic ecology, including threatened and endangered species.

### ***Archaeological and Historic Resources***

#### Affected Environment

Historic and cultural resources, including archaeological resources, are protected under various federal laws, including: the Archaeological Resources Protection Act, the Native American Graves Protection and Repatriation Act, and the National Historic Preservation Act (NHPA). Section 106 of the NHPA requires federal agencies to consult with the respective State Historic Preservation Officer (SHPO) when proposed federal actions could affect these resources.



TVA determined the Area of Potential Effect (APE) to be the total area within which current project actions would take place (20.5 acres), where physical effects could occur, as well as areas within a half-mile radius of the project within which the project would be visible, where visual effects to historic structures could occur.

### Environmental Consequences

Prior to TVA's involvement, TerraXplorations, Inc. (TerraX) conducted a Phase I archaeological survey of the project footprint and an additional 20 acres of the same parcel to the south (Carruth 2018). Due to low ground visibility, the entirety of the project footprint was systematically shovel tested at 30-meter intervals along North/South transects. A total of 182 shovel tests were excavated during the survey, all of which were negative for cultural material. The survey identified a marked gravestone in the northwest corner of the survey area, outside of the current project footprint. A record search indicated that this individual, Dale T. Hendrix (1927-1998), was buried in Concord Cemetery in Fouke, Arkansas and the landowner disavowed any knowledge of a burial on the property. TerraX concluded that the burial marker was likely out of place but that they could not say for certain that a burial was not located there. This burial, if present, is approximately 20 meters outside of the TVA project footprint and will not be impacted by the proposed project. Based on the results of this survey, TVA finds that no archaeological resources listed in, or eligible for, the National Register of Historic Places (NRHP) are present within the project footprint and no further archaeological work is recommended.

TVA contracted Tennessee Valley Archaeological Research (TVAR) to carry out a Phase I historic architectural survey of APE to assess the potential effects that the proposed 30 feet tall speculative building could have on historic structures (Rael et al. 2023). Background research indicated that a single, previously identified structure, 081-BAL-2002, was present within a half-mile radius of the project footprint. Prior to the field survey, TVAR conducted an ArcGIS based viewshed analysis to determine the areas within a half-mile radius that would be visible from the speculative 30 feet tall building when considering vegetation and topography. The viewshed analysis determined that neither resource 081-BAL-2002 nor any other potential historic structures were located within the APE. On October 6, 2023, TVAR conducted a field survey to ground truth the viewshed model. The survey confirmed that no historic structures were present within the APE. TVAR recommended a finding of no historic architectural properties affected and no additional work required.

TVA agrees with the methodologies, findings, and recommendations of the TerraX and TVAR reports. As such, TVA finds that the proposed undertaking would have no effect on historic properties. In a letter dated December 8, 2023, the Mississippi Department of Archives and History (MDAH) concurred with TVA's determination (Attachment B). However, MDAH did request that no ground disturbing activities occur within 10 meters of the identified grave marker. Although the grave marker is more than 10 meters (~20 meters) from the proposed project boundary, TVA will require a 10-meter avoidance area around the ground marker to ensure that no construction or movement in or out of the project area will impact the potential grave site. Pursuant to 36 CFR § 800.3(f)(2) of the regulations of the Advisory Council on Historic Preservation implementing the National Historic Preservation Act, TVA consulted with federally recognized Indian tribes regarding historic properties within the APE that may be of religious and cultural significance to the tribes. TVA received a response from the Muscogee (Creek) Nation concurring with TVA's finding of no historic properties affected. TVA also received a response from the Chickasaw Nation providing concurrence with the project and knowledge of two Chickasaw

Nation land patents in the APE (Land Patent #194 and #288). No additional associated Tribal Nations provided comment on the proposed project.

Under the No Action Alternative, if the CDF were able to secure the funding for the proposed TVA-funded actions described in this EA from outside sources, similar site activities would occur, resulting in similar impacts on archaeological and historic resources, as those described above for the Action Alternative. If the CDF were not able to secure the funding for the actions described in this EA, disturbance associated with the Proposed Action would not occur and there would be no impacts on archaeological and historic resources.

### **Mitigation**

CDF would be required by state law to obtain a National Pollutant Discharge Elimination System (NPDES) construction stormwater permit and the development and implementation of a Storm Water Pollution Prevention Plan (SWPPP). BMPs described in the Mississippi Handbook for Erosion Control, Sediment Control, and Stormwater Management on Construction Sites and Urban Areas (MDEQ 2011) would be used to avoid contamination of surface water in the Project Area.

A 10-meter radius around the identified grave marker would be avoided to ensure that no construction or movement in or out of the project area will impact the potential grave site.

Economic Development projects that require the use of rock or soil materials from an off-site borrow source are required to use a permitted, commercial borrow pit or quarry. These pits or quarries must be in operation prior to the grantee needing borrow materials, must be previously permitted by the State as an approved borrow pit or quarry (i.e., all permits in place prior to the grantee inquiry about purchasing materials), and must be used for other commercial, private, or public projects. These commercial borrow sites are referred to as “non-exclusive”. If the conditions listed above cannot be met, the grantee is required to notify TVA as soon as possible and before any borrow material is purchased. “Exclusive” sites are not authorized; this includes the establishment of new borrow pits or quarries that would be used exclusively by the grantee.

### **Conclusions and Findings**

Based on the findings in this Environmental Assessment, we conclude that the Proposed Action to provide funding to CDF for the improvement of Harry A. Martin North Lee Industrial Complex would not be a major federal action significantly affecting the environment. Accordingly, an environmental impact statement is not required.



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Dawn Booker, Manager  
Senior Manager, NEPA Compliance  
Environmental & Sustainability

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February 15, 2024

Date Signed

## CHAPTER 4 – LIST OF PREPARERS

### 4.1 NEPA Project Management

Name: Brittany Kunkle  
Education: B.S., Environmental and Soil Science  
Project Role: TVA Project Manager, TVA NEPA Coordinator, NEPA Compliance  
Experience: 5 years of professional experience in NEPA and environmental compliance

### 4.2 Other Contributors

Name: Cory Chapman  
Education: B.S. Wildlife and Fisheries Science  
Project Role: Aquatic Community Ecologist  
Experience: 6 years experience with stream and reservoir fish surveys. 3 years with stream delineation, CWA, NEPA, and ESA compliance

Name: Carrie Williamson  
Education: M.S., Civil Engineering; B.S., Civil Engineering; Professional Engineer, Certified Floodplain Manager  
Project Role: Floodplains and Flood Risk  
Experience: 10 years in Floodplains and Flood Risk; 3 years in River Forecasting; 11 years in Compliance Monitoring

Name: Britta Lees  
Education: M.S. Botany; B.S. Biology  
Project Role: Water Specialist, Water PC&M  
Experience: 25 years in wetland assessment, field biology, NEPA contributions, and water permitting

Name: Sara Bayles Dollar  
Education: Master of Science in Sport and Recreation Management  
Project Role: Recreation Specialist  
Experience: 2 years in Natural Resource Management

Name: Fallon Parker Hutcheon  
Education: M.S., Environmental Studies; B.S., Biology  
Project Role: Wetlands Biologist  
Experience: 4 years in wetland delineation, wetland impact analysis, and NEPA and CWA compliance

Name: Derek Reaux  
Education: Ph.D., Anthropology  
Project Role: Cultural Compliance, Archaeologist  
Experience: 12 years in archaeology (cultural resource management, non-profit, and academic research)

Name: David Mitchell  
Education: M.S. Soil and Water Science, B.S. Horticulture  
Project Role: Vegetation, Threatened and Endangered Plants

Experience: 18 years of experience with botany, ecosystem restoration, land management; 6 years of project/program management in environmental research

Name: Chloe Sweda

Education: B.S. Earth and Environmental Sciences

Project Role: Natural Areas Biologist

Experience: 5.5 years in Natural Resource Management

Name: Maria Aguirre

Education: B.S. Environmental Science

Project Role: Terrestrial Zoologist

Experience: 2 years working in wildlife biology, threatened and endangered species surveys, and research, 1-year NEPA and ESA Compliance.

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Attachment A: TVA Bat Strategy Project  
Screening Form



**Project Review Form - TVA Bat Strategy (06/2019)**

This form should **only** be completed if project includes activities in Tables 2 or 3 (STEP 2 below). This form is not required if project activities are limited to Table 1 (STEP 2) or otherwise determined to have no effect on federally listed bats. If so, include the following statement in your environmental compliance document (e.g., add as a comment in the project CEC): "Project activities limited to Bat Strategy Table 1 or otherwise determined to have no effect on federally listed bats. Bat Strategy Project Review Form NOT required." This form is to assist in determining required conservation measures per TVA's ESA Section 7 programmatic consultation for routine actions and federally listed bats.<sup>1</sup>

**Project Name:** FY24 InvestPrep - Lee County, MS **Date:** Aug 21, 2023  
**Contact(s):** Brittany Kunkle **CEC#:** \_\_\_\_\_ **Project ID:** 2023-26  
**Project Location (City, County, State):** Lee County, MS

**Project Description:**

Utilize TVA InvestPrep funding matched with Non-TVA funding to assist with the construction of a 100,000 SF speculative building, the grading of a 100,000 SF dirt building pad (adjacent to the 100,000 SF speculative building), and construction of a gravel access road that will serve both the speculative building and the dirt building pad.

**SECTION 1: PROJECT INFORMATION - ACTION AND ACTIVITIES**

**STEP 1) Select TVA Action. If none are applicable, contact environmental support staff, Environmental Project Lead, or Terrestrial Zoologist to discuss whether form (i.e., application of Bat Programmatic Consultation) is appropriate for project:**

- |   |  |
|---|--|
| <input type="checkbox"/> 1 Manage Biological Resources for Biodiversity and Public Use on TVA Reservoir Lands | <input type="checkbox"/> 6 Maintain Existing Electric Transmission Assets        |
| <input type="checkbox"/> 2 Protect Cultural Resources on TVA-Retained Land                                    | <input type="checkbox"/> 7 Convey Property associated with Electric Transmission |
| <input type="checkbox"/> 3 Manage Land Use and Disposal of TVA-Retained Land                                  | <input type="checkbox"/> 8 Expand or Construct New Electric Transmission Assets  |
| <input type="checkbox"/> 4 Manage Permitting under Section 26a of the TVA Act                                 | <input checked="" type="checkbox"/> 9 Promote Economic Development               |
| <input type="checkbox"/> 5 Operate, Maintain, Retire, Expand, Construct Power Plants                          | <input type="checkbox"/> 10 Promote Mid-Scale Solar Generation                   |

**STEP 2) Select all activities from Tables 1, 2, and 3 below that are included in the proposed project.**

TABLE 1. Activities with no effect to bats. Conservation measures & completion of bat strategy project review form NOT required.		
<input checked="" type="checkbox"/> 1. Loans and/or grant awards	<input type="checkbox"/> 8. Sale of TVA property	<input type="checkbox"/> 19. Site-specific enhancements in streams and reservoirs for aquatic animals
<input type="checkbox"/> 2. Purchase of property	<input type="checkbox"/> 9. Lease of TVA property	<input type="checkbox"/> 20. Nesting platforms
<input type="checkbox"/> 3. Purchase of equipment for industrial facilities	<input type="checkbox"/> 10. Deed modification associated with TVA rights or TVA property	<input type="checkbox"/> 41. Minor water-based structures (this does not include boat docks, boat slips or piers)
<input type="checkbox"/> 4. Environmental education	<input type="checkbox"/> 11. Abandonment of TVA retained rights	<input type="checkbox"/> 42. Internal renovation or internal expansion of an existing facility
<input type="checkbox"/> 5. Transfer of ROW easement and/or ROW equipment	<input type="checkbox"/> 12. Sufferance agreement	<input type="checkbox"/> 43. Replacement or removal of TL poles
<input type="checkbox"/> 6. Property and/or equipment transfer	<input checked="" type="checkbox"/> 13. Engineering or environmental planning or studies	<input type="checkbox"/> 44. Conductor and overhead ground wire installation and replacement
<input type="checkbox"/> 7. Easement on TVA property	<input type="checkbox"/> 14. Harbor limits delineation	<input type="checkbox"/> 49. Non-navigable houseboats

**TABLE 2. Activities not likely to adversely affect bats with implementation of conservation measures. Conservation measures and completion of bat strategy project review form REQUIRED; review of bat records in proximity to project NOT required.**

<input checked="" type="checkbox"/> 18. Erosion control, minor	<input type="checkbox"/> 57. Water intake - non-industrial	<input type="checkbox"/> 79. Swimming pools/associated equipment
<input type="checkbox"/> 24. Tree planting	<input type="checkbox"/> 58. Wastewater outfalls	<input type="checkbox"/> 81. Water intakes – industrial
<input type="checkbox"/> 30. Dredging and excavation; recessed harbor areas	<input type="checkbox"/> 59. Marine fueling facilities	<input type="checkbox"/> 84. On-site/off-site public utility relocation or construction or extension
<input type="checkbox"/> 39. Berm development	<input type="checkbox"/> 60. Commercial water-use facilities (e.g., marinas)	<input type="checkbox"/> 85. Playground equipment - land-based
<input type="checkbox"/> 40. Closed loop heat exchangers (heat pumps)	<input type="checkbox"/> 61. Septic fields	<input type="checkbox"/> 87. Aboveground storage tanks
<input type="checkbox"/> 45. Stream monitoring equipment - placement and use	<input type="checkbox"/> 66. Private, residential docks, piers, boathouses	<input type="checkbox"/> 88. Underground storage tanks
<input type="checkbox"/> 46. Floating boat slips within approved harbor limits	<input type="checkbox"/> 67. Siting of temporary office trailers	<input type="checkbox"/> 90. Pond closure
<input checked="" type="checkbox"/> 48. Laydown areas	<input checked="" type="checkbox"/> 68. Financing for speculative building construction	<input type="checkbox"/> 93. Standard License
<input checked="" type="checkbox"/> 50. Minor land based structures	<input type="checkbox"/> 72. Ferry landings/service operations	<input type="checkbox"/> 94. Special Use License
<input type="checkbox"/> 51. Signage installation	<input type="checkbox"/> 74. Recreational vehicle campsites	<input type="checkbox"/> 95. Recreation License
<input type="checkbox"/> 53. Mooring buoys or posts	<input type="checkbox"/> 75. Utility lines/light poles	<input type="checkbox"/> 96. Land Use Permit
<input type="checkbox"/> 56. Culverts	<input type="checkbox"/> 76. Concrete sidewalks	

**Table 3: Activities that may adversely affect federally listed bats. Conservation measures AND completion of bat strategy project review form REQUIRED; review of bat records in proximity of project REQUIRED by OSAR/Heritage eMap reviewer or Terrestrial Zoologist.**

<input type="checkbox"/> 15. Windshield and ground surveys for archaeological resources	<input type="checkbox"/> 34. Mechanical vegetation removal, includes trees or tree branches > 3 inches in diameter	<input type="checkbox"/> 69. Renovation of existing structures
<input type="checkbox"/> 16. Drilling	<input checked="" type="checkbox"/> 35. Stabilization (major erosion control)	<input type="checkbox"/> 70. Lock maintenance/ construction
<input type="checkbox"/> 17. Mechanical vegetation removal, does not include trees or branches > 3" in diameter (in Table 3 due to potential for woody burn piles)	<input checked="" type="checkbox"/> 36. Grading	<input type="checkbox"/> 71. Concrete dam modification
<input type="checkbox"/> 21. Herbicide use	<input type="checkbox"/> 37. Installation of soil improvements	<input type="checkbox"/> 73. Boat launching ramps
<input type="checkbox"/> 22. Grubbing	<input type="checkbox"/> 38. Drain installations for ponds	<input checked="" type="checkbox"/> 77. Construction or expansion of land-based buildings
<input type="checkbox"/> 23. Prescribed burns	<input type="checkbox"/> 47. Conduit installation	<input type="checkbox"/> 78. Wastewater treatment plants
<input checked="" type="checkbox"/> 25. Maintenance, improvement or construction of pedestrian or vehicular access corridors	<input type="checkbox"/> 52. Floating buildings	<input type="checkbox"/> 80. Barge fleeting areas
<input type="checkbox"/> 26. Maintenance/construction of access control measures	<input type="checkbox"/> 54. Maintenance of water control structures (dewatering units, spillways, levees)	<input type="checkbox"/> 82. Construction of dam/weirs/ levees
<input type="checkbox"/> 27. Restoration of sites following human use and abuse	<input type="checkbox"/> 55. Solar panels	<input type="checkbox"/> 83. Submarine pipeline, directional boring operations
<input type="checkbox"/> 28. Removal of debris (e.g., dump sites, hazardous material, unauthorized structures)	<input type="checkbox"/> 62. Blasting	<input type="checkbox"/> 86. Landfill construction
<input checked="" type="checkbox"/> 29. Acquisition and use of fill/borrow material	<input type="checkbox"/> 63. Foundation installation for transmission support	<input type="checkbox"/> 89. Structure demolition
<input type="checkbox"/> 31. Stream/wetland crossings	<input type="checkbox"/> 64. Installation of steel structure, overhead bus, equipment, etc.	<input type="checkbox"/> 91. Bridge replacement
<input type="checkbox"/> 32. Clean-up following storm damage	<input type="checkbox"/> 65. Pole and/or tower installation and/or extension	<input type="checkbox"/> 92. Return of archaeological remains to former burial sites
<input type="checkbox"/> 33. Removal of hazardous trees/tree branches		

**STEP 3) Project includes one or more activities in Table 3?**

**YES (Go to Step 4)**

**NO (Go to Step 13)**

**STEP 4) Answer questions a through e below (applies to projects with activities from Table 3 ONLY)**

- a) Will project involve continuous noise (i.e.,  $\geq 24$  hrs) that is greater than 75 decibels measured on the A scale (e.g., loud machinery)?  **NO** (NV2 does not apply)  **YES** (NV2 applies, subject to records review)
- b) Will project involve entry into/survey of cave?  **NO** (HP1/HP2 do not apply)  **YES** (HP1/HP2 applies, subject to review of bat records)
- c) If conducting **prescribed burning (activity 23)**, estimated acreage:  and timeframe(s) below;  **N/A**

STATE	SWARMING	WINTER	NON-WINTER	PUP
GA, KY, TN	<input type="checkbox"/> Oct 15 - Nov 14	<input type="checkbox"/> Nov 15 - Mar 31	<input type="checkbox"/> Apr 1 - May 31, Aug 1 - Oct 14	<input type="checkbox"/> Jun 1 - Jul 31
VA	<input type="checkbox"/> Sep 16 - Nov 15	<input type="checkbox"/> Nov 16 - Apr 14	<input type="checkbox"/> Apr 15 - May 31, Aug 1 - Sept 15	<input type="checkbox"/> Jun 1 - Jul 31
AL	<input type="checkbox"/> Oct 15 - Nov 14	<input type="checkbox"/> Nov 15 - Mar 15	<input type="checkbox"/> Mar 16 - May 31, Aug 1 - Oct 14	<input type="checkbox"/> Jun 1 - Jul 31
NC	<input type="checkbox"/> Oct 15 - Nov 14	<input type="checkbox"/> Nov 15 - Apr 15	<input type="checkbox"/> Apr 16 - May 31, Aug 1 - Oct 14	<input type="checkbox"/> Jun 1 - Jul 31
MS	<input type="checkbox"/> Oct 1 - Nov 14	<input type="checkbox"/> Nov 15 - Apr 14	<input type="checkbox"/> Apr 15 - May 31, Aug 1 - Sept 30	<input type="checkbox"/> Jun 1 - Jul 31

- d) Will the project involve vegetation piling/burning?  **NO** (SSPC4/SHF7/SHF8 do not apply)  **YES** (SSPC4/SHF7/SHF8 applies, subject to review of bat records)

- e) If **tree removal (activity 33 or 34)**, estimated amount:   **ac**  **trees**  **N/A**

STATE	SWARMING	WINTER	NON-WINTER	PUP
GA, KY, TN	<input type="checkbox"/> Oct 15 - Nov 14	<input type="checkbox"/> Nov 15 - Mar 31	<input type="checkbox"/> Apr 1 - May 31, Aug 1 - Oct 14	<input type="checkbox"/> Jun 1 - Jul 31
VA	<input type="checkbox"/> Sep 16 - Nov 15	<input type="checkbox"/> Nov 16 - Apr 14	<input type="checkbox"/> Apr 15 - May 31, Aug 1 - Sept 15	<input type="checkbox"/> Jun 1 - Jul 31
AL	<input type="checkbox"/> Oct 15 - Nov 14	<input type="checkbox"/> Nov 15 - Mar 15	<input type="checkbox"/> Mar 16 - May 31, Aug 1 - Oct 14	<input type="checkbox"/> Jun 1 - Jul 31
NC	<input type="checkbox"/> Oct 15 - Nov 14	<input type="checkbox"/> Nov 15 - Apr 15	<input type="checkbox"/> Apr 16 - May 31, Aug 1 - Oct 14	<input type="checkbox"/> Jun 1 - Jul 31
MS	<input type="checkbox"/> Oct 1 - Nov 14	<input type="checkbox"/> Nov 15 - Apr 14	<input type="checkbox"/> Apr 15 - May 31, Aug 1 - Sept 30	<input type="checkbox"/> Jun 1 - Jul 31

- If warranted, does project have flexibility for bat surveys (May 15-Aug 15):  **MAYBE**  **YES**  **NO**

\*\*\* For **PROJECT LEADS** whose projects will be reviewed by a Heritage Reviewer (Natural Resources Organization only), **STOP HERE**. Click File/Save As, name form as "ProjectLead\_BatForm\_CEC-or-ProjectIDNo\_Date", and submit with project information. Otherwise continue to Step 5. \*\*\*

**SECTION 2: REVIEW OF BAT RECORDS (applies to projects with activities from Table 3 ONLY)**

**STEP 5) Review of bat/cave records conducted by Heritage/OSAR reviewer?**

- YES**  **NO** (Go to Step 13)

Info below completed by:  **Heritage Reviewer** (name)  Date

**OSAR Reviewer** (name)  Date

**Terrestrial Zoologist** (name) Maria Aguirre Date Nov 28, 2023

- Gray bat records:  None  Within 3 miles\*  Within a cave\*  Within the County
- Indiana bat records:  None  Within 10 miles\*  Within a cave\*  Capture/roost tree\*  Within the County
- Northern long-eared bat records:  None  Within 5 miles\*  Within a cave\*  Capture/roost tree\*  Within the County
- Virginia big-eared bat records:  None  Within 6 miles\*  Within the County
- Caves:  None within 3 mi  Within 3 miles but > 0.5 mi  Within 0.5 mi but > 0.25 mi\*  Within 0.25 mi but > 200 feet\*  Within 200 feet\*

- Bat Habitat Inspection Sheet completed?**  **NO**  **YES**

- Amount of SUITABLE habitat to be removed/burned (may differ from STEP 4e):**  ( **ac**  **trees**)\*  **N/A**

**STEP 6) Provide any additional notes resulting from Heritage Reviewer records review in Notes box below then . . . . .**  
 . . . . . **Go to Step 13**

**Notes from Bat Records Review** (e.g., historic record; bats not on landscape during action; DOT bridge survey with negative results):

**STEPS 7-12 To be Completed by Terrestrial Zoologist (if warranted):**

**STEP 7) Project will involve:**

- Removal of suitable trees within 0.5 mile of P1-P2 Indiana bat hibernacula or 0.25 mile of P3-P4 Indiana bat hibernacula or any NLEB hibernacula.
- Removal of suitable trees within 10 miles of documented Indiana bat (or within 5 miles of NLEB) hibernacula.
- Removal of suitable trees > 10 miles from documented Indiana bat (> 5 miles from NLEB) hibernacula.
- Removal of trees within 150 feet of a documented Indiana bat or northern long-eared bat maternity roost tree.
- Removal of suitable trees within 2.5 miles of Indiana bat roost trees or within 5 miles of Indiana bat capture sites.
- Removal of suitable trees > 2.5 miles from Indiana bat roost trees or > 5 miles from Indiana bat capture sites.
- Removal of documented Indiana bat or NLEB roost tree, if still suitable.
- N/A

**STEP 8) Presence/absence surveys were/will be conducted:**  YES  NO  TBD

**STEP 9) Presence/absence survey results, on**   NEGATIVE  POSITIVE  N/A

**STEP 10) Project**  WILL  WILL NOT require use of Incidental Take in the amount of   acres or  trees proposed to be used during the  WINTER  VOLANT SEASON  NON-VOLANT SEASON  N/A

**STEP 11) Available Incidental Take (prior to accounting for this project) as of**

TVA Action	Total 20-year	Winter	Volant Season	Non-Volant Season
9 Promote Economic Development				

**STEP 12) Amount contributed to TVA's Bat Conservation Fund upon activity completion:** \$  OR  N/A

**TERRESTRIAL ZOOLOGISTS, after completing SECTION 2, review Table 4, modify as needed, and then complete section for Terrestrial Zoologists at end of form.**

**SECTION 3: REQUIRED CONSERVATION MEASURES**

**STEP 13) Review Conservation Measures in Table 4 and ensure those selected are relevant to the project. If not, manually override and uncheck irrelevant measures, and explain why in ADDITIONAL NOTES below Table 4.**

Did review of Table 4 result in ANY remaining Conservation Measures in **RED**?

- NO** (Go to Step 14)
- YES** (STOP HERE; Submit for Terrestrial Zoology Review. Click File/Save As, name form as "ProjectLead\_BatForm\_CEC-or-ProjectIDNo\_Date", and submit with project information).

**Table 4. TVA's ESA Section 7 Programmatic Bat Consultation Required Conservation Measures**

The Conservation Measures in Table 4 are automatically selected based on your choices in Tables 2 and 3 but can be manually overridden, if necessary. To Manually override, press the button and enter your name.

Manual Override

Name: Maria Aguirre

Check if Applies to Project	Activities Subject To Conservation Measure	Conservation Measure Description
		<p><b>NV1</b> - Noise will be short-term, transient, and not significantly different from urban interface or natural events (i.e., thunderstorms) that bats are frequently exposed to when present on the landscape.</p>
		<p><b>SSPC2</b> - Operations involving chemical/fuel storage or resupply and vehicle servicing will be handled outside of riparian zones (streamside management zones) in a manner to prevent these items from reaching a watercourse. Earthen berms or other effective means are installed to protect stream channel from direct surface runoff. Servicing will be done with care to avoid leakage, spillage, and subsequent stream, wetland, or ground water contamination. Oil waste, filters, other litter will be collected and disposed of properly. Equipment servicing and chemical/fuel storage will be limited to locations greater than 300-ft from sinkholes, fissures, or areas draining into known sinkholes, fissures, or other karst features.</p>
		<p><b>SSPC5 (26a, Solar, Economic Development only)</b> - Section 26a permits and contracts associated with solar projects, economic development projects or land use projects include standards and conditions that include standard BMPs for sediment and contaminants as well as measures to avoid or minimize impacts to sensitive species or other resources consistent with applicable laws and Executive Orders.</p>
		<p><b>L1</b> - Direct temporary lighting away from suitable habitat during the active season.</p>
		<p><b>L2</b> - Evaluate the use of outdoor lighting during the active season and seek to minimize light pollution when installing new or replacing existing permanent lights by angling lights downward or via other light minimization measures (e.g., dimming, directed lighting, motion-sensitive lighting).</p>

<sup>1</sup>Bats addressed in consultation (02/2018), which includes gray bat (listed in 1976), Indiana bat (listed in 1967), northern long-eared bat (listed in 2015), and Virginia big-eared bat (listed in 1979).

**Hide All Unchecked Conservation Measures**

- HIDE
- UNHIDE

**Hide Table 4 Columns 1 and 2 to Facilitate Clean Copy and Paste**

- HIDE
- UNHIDE

**Project Review Form - TVA Bat Strategy (06/2019)**

**NOTES** (additional info from field review, explanation of no impact or removal of conservation measures).

No tree removal, no caves within three miles, no hibernacula within 10 miles.

**STEP 14) Save completed form (Click File/Save As, name form as "ProjectLead\_BatForm\_CEC-or-ProjectIDNo\_Date") in project environmental documentation (e.g. CEC, Appendix to EA) AND send a copy of form to [batstrategy@tva.gov](mailto:batstrategy@tva.gov)**  
**Submission of this form indicates that Project Lead/Applicant:**

(name) is (or will be made) aware of the requirements below.

- Implementation of conservation measures identified in Table 4 is required to comply with TVA's Endangered Species Act programmatic bat consultation.
- TVA may conduct post-project monitoring to determine if conservation measures were effective in minimizing or avoiding impacts to federally listed bats.

***For Use by Terrestrial Zoologist Only***

Terrestrial Zoologist acknowledges that Project Lead/Contact (name)  has been informed of any relevant conservation measures and/or provided a copy of this form.

For projects that require use of Take and/or contribution to TVA's Bat Conservation Fund, Terrestrial Zoologist acknowledges that Project Lead/Contact has been informed that project will result in use of Incidental Take   ac  trees and that use of Take will require \$  contribution to TVA's Conservation Fund upon completion of activity (amount entered should be \$0 if cleared in winter).

For Terrestrial Zoology Use Only. Finalize and Print to Noneditable PDF.

Attachment B: Mississippi Department of  
Archives and History Correspondence



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December 8, 2023

Mr. Derek Reaux  
Tennessee Valley Authority  
400 W Summit Hill Drive  
Knoxville, Tennessee 37902

RE: Historic Architectural Resources Survey for the Harry A. Martin Industrial Complex, (TVA) MDAH Project Log #11-021-23, Report #23-0379, Lee County

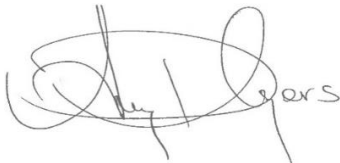
Dear Mr. Reaux:

We have reviewed the October 2023, architectural resources survey, by Jillian Rael, Senior Architectural Historian, with Tennessee Valley Archaeological Research, received on November 7, 2023, for the above referenced undertaking, pursuant to our responsibilities under Section 106 of the National Historic Preservation Act and 36 CFR Part 800.

After reviewing the information provided, MDAH concurs that no resources will be affected by the proposed undertaking. However, to ensure no graves are disturbed, no ground disturbance should occur within 10 meters of the documented grave marker. With this condition, we have no objections to the proposed undertaking.

Please provide a copy of this letter to Ms. Rael. If you have any questions, please do not hesitate to contact us at (601) 576-6940.

Sincerely,



Amy D. Myers  
Preservation Planning Administrator

FOR: Katie Blount  
State Historic Preservation Officer