



Tier I Site Assessment

Main CSJ: 1006-01-074, 1006-02-009, 1006-01-079

Form Prepared By: Marissa Buschow, Cox|McLain Environmental Consulting, Inc.

Date of Evaluation: 7/11/2021

Proposed Letting Date: September 2025

Project not assigned to TxDOT under the NEPA Assignment MOU

District(s): Houston

County(ies): Harris, Waller

Roadway Name: Farm-to-Market Road (FM) 529

Limits From: State Highway (SH) 99

Limits To: FM 362

Project Description: The FM 529 project description is provided in the Work Plan Development Form in ECOS.

The environmental review, consultation, and other actions required by applicable Federal environmental laws for this project are being, or have been, carried-out by TxDOT pursuant to 23 U.S.C. 327 and a Memorandum of Understanding dated December 16, 2014, and executed by FHWA and TxDOT.

1. No Is the project limited to a maintenance activity exempt from coordination?
<http://txdot.gov/inside-txdot/division/environmental/maintenance-program.html>
2. No Has the project previously completed coordination with TPWD?
3. Yes Is the project within range of a state threatened or endangered species or SGCN and suitable habitat is present?

***Explain:**

The proposed project is within range with potentially suitable habitat for the following state-listed threatened species:

- White-tailed hawk (*Buteo albicaudatus*)
- Wood stork (*Mycteria americana*)
- Rafinesque's big-eared bat (*Corynorhinus rafinesquii*)
- Houston daisy (*Rayjacksonia aurea*)

The proposed project is within range with potentially suitable habitat for the following Species of Greatest Conservation Need (SGCNs):

Amphibians:

- Southern crawfish frog (*Lithobates areolatus areolatus*)
- Strecker's chorus frog (*Pseudacris streckeri*)
- Woodhouse's toad (*Anaxyrus woodhousii*)

Birds:

- Mountain plover (*Charadrius montanus*)
- Western burrowing owl (*Athene cucularia hypugaea*)

Crustaceans:

- Houston burrowing crayfish (*Fallicambarus houstonensis*)

Fish:

- Blackspot shiner (*Notropis atrocaudalis*)
- Mississippi silvery minnow (*Hybognathus nuchalis*)

Mammals:

- Big brown bat (*Eptesicus fuscus*)



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- Eastern red bat (*Lasiurus borealis*)
- Eastern spotted skunk (*Spilogale putorius*)
- Hoary bat (*Lasiurus cinereus*)
- Long-tailed weasel (*Mustela frenata*)
- Northern yellow bat (*Lasiurus intermedius*)
- Southeastern myotis bat (*Myotis austroriparius*)
- Swamp rabbit (*Sylvilagus aquaticus*)
- Tricolored bat (*Perimyotis subflavus*)

Plants:

- Coastal gay-feather (*Liatris bracteata*)
- Indianola beakrush (*Rhynchospora indianolensis*)
- Shinner's sunflower (*Helianthus occidentalis* ssp. *plantagineus*)
- Texas ladies'-tresses (*Spiranthes brevilabris* var. *brevilabris*)
- Texas meadow-rue (*Thalictrum texanum*)
- Texas pinkroot (*Spigelia texana*)
- Texas tauschia (*Tauschia texana*)
- Texas windmill grass (*Chloris texensis*)
- Topeka purple-coneflower (*Echinacea atrorubens*)

Reptiles:

- Eastern box turtle (*Terrapene carolina*)
- Pygmy rattlesnake (*Sistrurus miliarius*)
- Slender glass lizard (*Ophisaurus attenuatus*)
- Timber rattlesnake (*Crotalus horridus*)
- Western box turtle (*Terrapene ornata*)
- Western hognose snake (*Heterodon nasicus*)

Date [TPWD County](#) List Accessed: 7/01/2021

Date that the NDD was accessed: 7/01/2021

What agency performed the NDD search? TPWD

 No Does the BMP PA eliminate the requirement to coordinate for all species?

Comments:

There are no TPWD-approved BMPs for the following species: Strecker's chorus frog, Woodhouse's toad, mountain plover, SGCN fish, SGCN mammals (except for southeastern myotis bat), SGCN plants, SGCN reptiles (except for timber rattlesnake).

4. No NDD and TCAP review indicates adverse impacts to remnant vegetation?

5. Yes Does the project require a NWP with PCN or IP by USACE?

*Explain:

Based on current design files, the proposed project is anticipated to be covered under NWP 14 and NWP 7 with a PCN for impacts to waters within the project area.

6. No Does the project include more than 200 linear feet of stream channel for each single and complete crossing of one or more of the following that is not already channelized or otherwise maintained:



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- 7. No Does the project contain known isolated wetlands outside the TxDOT ROW that will be directly impacted by the project?
- 8. Yes Would the project impact at least 0.10 acre of riparian vegetation?

***Explain:**

Approximately 0.66 acres of Riparian vegetation were mapped within the proposed project area and may be impacted as a result of the project construction.

- 9. Yes Does project disturb a habitat type in an area equal to or greater than the area of disturbance indicated in the Threshold Table Programmatic Agreement?

***Explain:**

The proposed project would exceed the threshold of disturbance for the following habitat types in the Western Gulf Coastal Plain region:

- Coastal Grassland: 45.30 acres (threshold: 2 acres)
- Disturbed Prairie: 17.02 acres (threshold: 3 acres)
- Riparian: 0.66 acres (threshold: 0.1 acres)

***Attach associated file of EMST output (Mapper Report or other Excel File which includes MOU Type, Ecosystem Name, Common/Vegetation Type Name) in ECOS**

Excel File Name:

FM 529 EMST table_20191231.pdf

- 9.1. Yes Is there a discrepancy between actual habitat(s) and EMST mapped habitat(s)?

***Explain:**

The mapped EMST (Attachment 4) showed a greater diversity of habitat types than what was observed during field visits (Attachment 5). The observed vegetation in the project area fell into six habitat types: Agriculture, Coastal Grassland, Disturbed Prairie, Open Water, Riparian, and Urban. The project area was primarily mowed and maintained Urban vegetation. Coastal Grassland areas were former rice paddies with early successional prairie species such as broomsedge bluestem (*Andropogon virginicus*), *Cyperus* sp., and bushy bluestem (*Andropogon glomeratus*). Disturbed Prairie was typified by yaupon (*Ilex vomitoria*) and Chinese tallow (*Triadica sebifera*) woodlands.

Attach file showing discrepancy between actual and EMST mapped habitat(s).

File Name:

FM 529 EMST_20191231.pdf
 FM 529 Observed_vegetation_20191231.pdf
 FM 529 Project Area Photos.pdf

Is TPWD Coordination Required?

Yes

- Early Coordination
- Administrated Coordination - Must be conducted through ENV-NRM

BMPs Implemented or EPICs included (as necessary):

Southern Crawfish Frog BMPs (may also be implemented for other SGCN amphibians):

In Austin, Colorado, Delta, Fannin, Fort Bend, Grayson, Harris, Hopkins, Kaufman, Lamar, Van Zandt, Victoria, and Waller counties, coordinate for all projects that would include new ROW or TxDOT easements. For projects entirely within the existing ROW in those counties and for all projects in other counties in species range:

- 1) Minimize impacts to wetland habitats including isolated ephemeral pools
- 2) Water Quality BMPs
- 3) Amphibian BMPs

Terrestrial Reptile BMPs (timber rattlesnake; may also be implemented for other SGCN reptiles):

- Apply hydromulching and/or hydroseeding in areas for soil stabilization and/or revegetation of disturbed areas where feasible. If hydromulching and/or hydroseeding are not feasible due to site conditions, utilize erosion control blankets or mats that contain no netting or contain loosely woven, natural fiber netting is preferred. Plastic netting should be avoided to the extent practicable.
- For open trenches and excavated pits, install escape ramps at an angle of less than 45 degrees (1:1) in areas left uncovered. Visually inspect excavation areas for trapped wildlife prior to backfilling.
- Inform contractors that if reptiles are found on project site allow species to safely leave the project area.
- Avoid or minimize disturbing or removing downed trees, rotting stumps, and leaf litter where feasible.
- Contractors will be advised of potential occurrence in the project area, and to avoid harming the species if encountered.

Bird BMPs (western burrowing owl, white-tailed hawk, wood stork; may also be implemented for mountain plover):

In addition to complying with the Migratory Bird Treaty Act (MBTA), perform the following BMPs:

- Prior to construction, perform daytime surveys for nests including under bridges and in culverts to determine if they are active before removal. Nests that are active should not be disturbed.
- Do not disturb, destroy, or remove active nests, including ground nesting birds, during the nesting season;
- Avoid the removal of unoccupied, inactive nests, as practicable;
- Prevent the establishment of active nests during the nesting season on TxDOT owned and operated facilities and structures proposed for replacement or repair;
- Do not collect, capture, relocate, or transport birds, eggs, young, or active nests without a permit.

Bat BMPs (southeastern myotis bat; may also be implemented for other SGCN bats):

To determine the appropriate best management practice to avoid or minimize impacts to bats, review the habitat description for the species of interest on the TPWD Rare, Threatened, and Endangered Species of Texas by County List or other trusted resources. All bat surveys and other activities that include direct contact with bats shall comply with TPWD-recommended white-nose syndrome protocols located on the TPWD Wildlife Habitat Assessment Program website under "Project Design and Construction".

The following survey and exclusion protocols should be followed prior to commencement of construction activities. For the purposes of this document, structures are defined as bridges, culverts (concrete or metal), wells, and buildings.

- For activities that have the potential to impact structures, cliffs, caves, or trees, a qualified biologist will perform a habitat assessment and occupancy survey of the feature(s) with roost potential as early in the planning process as possible or within one year before project letting.
- For roosts where occupancy is strongly suspected but unconfirmed during the initial survey, revisit feature(s) no more than four weeks prior to scheduled disturbance to confirm absence of bats.
- If bats are present or recent signs of occupation (i.e., piles of guano, distinct musky odor, or staining and rub marks at potential entry points) are observed, take appropriate measures to ensure that bats are not harmed, such as implementing non-lethal exclusion activities or timing or phasing of construction.
- Exclusion devices can be installed by a qualified individual between September 1 and March 31. Exclusion devices should be used for a minimum of seven days when minimum nighttime temperatures are above 50°F AND minimum daytime temperatures are above 70°F. Prior to exclusion, ensure that alternate roosting habitat is available in the immediate area. If no suitable roosting habitat is available, installation of alternate roosts is recommended to replace the loss of an occupied roost. If alternate roost sites are not provided, bats may seek shelter in other inappropriate sites, such as buildings, in the surrounding area. See Section 2: Standard



- Recommendations for recommended acceptable methods for excluding bats from structures.
- If feature(s) used by bats are removed as a result of construction, replacement structures should incorporate bat-friendly design or artificial roosts should be constructed to replace these features, as practicable.
 - Conversion of property containing cave or cliff features to transportation purposes should be avoided where feasible.
 - Avoid unnecessary removal of dead fronds on native and ornamental palm trees in south Texas (Cameron, Hidalgo, Willacy, Kenedy, Brooks, Kleberg, Nueces, and San Patricio counties) from April 1 through October 31. If removal of dead fronds is necessary at other times of the year, limit frond removal to extended warm periods (nighttime temperatures $\geq 55^{\circ}\text{F}$ for at least two consecutive nights), so bats can move away from the disturbance and find new roosts.
 - Large hollow trees, snags (dead standing trees), and trees with shaggy bark should be surveyed for colonies and, if found, should not be disturbed until the bats are no longer occupying these features. Post-occupancy surveys should be conducted by a qualified biologist prior to tree removal from the landscape.
 - Retain mature, large diameter hardwood forest species and native/ornamental palm trees where feasible.
 - In all instances, avoid harm or death to bats. Bats should only be handled as a last resort and after communication with TPWD.

TxDOT Contact Information

Name: Jason Holloman

Phone Number: (713) 802-5137

E-mail: Jason.Holloman@txdot.gov



Suggested Attachments

Aerial Map (with delineated project boundaries)

USFWS T&E List

TPWD T&E List

Species Analysis Summary

NDD EOID List and Tracked Managed Areas (Required for TPWD Coordination)

EMST Project MOU Summary Table (Required for TPWD Coordination)

TPWD SGCN List

Photos (Required for TPWD Coordination)

Previous TPWD Coordination Documentation (if applicable)