



Tier I Site Assessment

Main CSJ: 0047-05-054, etc.

Form Prepared By: Alexandra Austin, Michael Baker International

Date of Evaluation: April 15, 2020

Proposed Letting Date: December 2022

Project not assigned to TxDOT under the NEPA Assignment MOU

District(s): Dallas

County(ies): Collin

Roadway Name: SH 5

Limits From: SS 399

Limits To: South of CR 275

Project Description: Please see the project description uploaded in ECOS under the CCSJ 0047-05-054.

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 9, 2019, 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 occurs within range of and contains suitable habitat for the following state-listed species: White-faced Ibis, Wood Stork, Louisiana pigtoe, Texas Heelsplitter, alligator snapping turtle, and timber rattlesnake.

SGCN were analyzed and only those included on this Tier 1 Form may be impacted. All other SGCN would not be impacted. The project also occurs within range of and contains suitable habitat for the following SGCN: Southern crawfish frog, Franklin's Gull, eastern spotted skunk, western hog-nosed skunk, eastern box turtle, and Texas garter snake.

Date [TPWD County](#) List Accessed: April 7, 2020

Date that the NDD was accessed: December 18, 2019

What agency performed the NDD search? TPWD

EOID Number	Common Name	Scientific Name	Listing Status	Buffer Zone
EOID 12797	Eastern Spotted Skunk	<i>Spilogale putorius</i>	SGCN	1.5 Mile
EOID 12799	Western Hog-nosed Skunk	<i>Conepatus leuconotus</i>	SGCN	1.5 Mile



NDD Search Results for EOIDs and Tracked Managed Areas

EOID Number	Common Name	Scientific Name	Listing Status	Buffer Zone
SFID 37746	Common Garter Snake	<i>Thamnophis sirtalis</i>	N/A	1.5 Mile

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

Comments:

Species-specific BMPs from the TxDOT-TPWD BMP PA would be implemented to avoid and minimize impacts to the White Faced Ibis, Wood Stork, Louisiana Pigtoe, Texas Heelsplitter, Alligator Snapping Turtle, Timber Rattlesnake, Texas Garter Snake, Southern Crawfish Frog, and eastern spotted skunk (using plains spotted skunk BMPs by TPWD approval).

The BMP PA does not provide species-specific BMPs for the following SGCN: Franklin's Gull, Western Hog-Nosed Skunk, and Eastern Box Turtle.

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

Comments:

According to the MOU, important remnant vegetation includes 1) rare vegetation communities and 2) those that are suitable habitat for SGCN.

To address the first component, Texas Natural Diversity Database (TxNDD) data obtained from TPWD on December 18, 2019, was reviewed along with the TPWD RTEST list for Denton County, dated April 7, 2020. The TxNDD search radii was 1.5 miles and 10 miles from the proposed project area. The TxNDD search revealed three element of occurrence records within 1.5 miles of the proposed project area: one common garter snake (*Thamnophis sirtalis*), one western hog-nosed skunk (*Conepatus leuconotus*) and one eastern spotted skunk (*Spilogale putorius*). The NDD search also revealed nine element of occurrence records within 10 miles of the proposed project area, consisting of two records for Vertisol Blackland Prairie (*Schizachyrium scoparium* – *Sorghastrum nutans* – *Andropogon gerardii* – *Bifora americana* Vertisol Grassland), one American Elm – chinkapin Oak – hackberry series (*Ulmus americana* – *Quercus muhlenbergia* – *Celtis* spp. Series), three Little Bluestem – Indiangrass series (*Schizachyrium scoparium* – *Sorghastrum nutans* series), and three Woodhouse’s toad (*Anaxyrus woodhousii*) elements of occurrence. These species and plant communities are located outside of the project area and would not be impacted by the proposed project.

To address important remnant vegetation’s second component, general habitat types of those SGCNs that may be impacted by the proposed project include agricultural, forest, grassland, riparian, riverine, grassland, and woodland. These habitat types are located immediately adjacent to the existing SH 5 corridor, and each includes an edge component. The majority of riparian, riverine, woodland, and forest habitat is located along East Fork Trinity River and Wilson Creek, and their associated tributaries. Habitat in an agricultural area is present in small areas between McIntyre Road and CR 275. In general, grassland and woodland areas are located throughout the project area within rural residential areas and pastures. Developed habitat is located throughout the project area. Impacts to these habitats were quantified, based on the MOU type that best fits vegetation present in the given habitat, by using the Ecological Management Systems of Texas (EMST) correcting for discrepancies using actual observed vegetation types as discussed below. None of these areas that include habitat for SGCNs are considered rare or remnant vegetation communities.

5. No Does the project require a NWP with PCN or IP by USACE?



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Comments:

The proposed project is anticipated to require NWP 14. However, the PCN threshold of 0.1 acre per crossing is not anticipated to be met based upon proposed impacts to identified waters of the US 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:

Comments:

Linear waters of the U.S. lie within the evaluated existing and proposed ROW. The project area crosses several intermittent streams and two perennial streams (East Fork Trinity River and Wilson Creek). Intermittent stream crossings consist of maintained culverted crossings while the perennial stream crossings consist of maintained bridged crossings. It is anticipated that the project would be authorized under NWP 14. All proposed roadway and drainage improvements would be designed in a manner to avoid or minimize impacts to jurisdictional features.

- 7. No Does the project contain known isolated wetlands outside the TxDOT ROW that will be directly impacted by the project?

Comments:

The proposed project would not directly impact any isolated wetlands outside of the ROW.

- 8. Yes Would the project impact at least 0.10 acre of riparian vegetation?

*Explain:

Approximately 6.17 acres of riparian vegetation lie within existing and proposed ROW and could potentially be impacted by construction activities according to the field-verified EMST package.

- 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 MOU thresholds of 0.10 acres for riparian vegetation and 3.0 acres for Disturbed Prairie would be exceeded based on the project footprint of existing and proposed ROW, requiring coordination with TPWD. Approximately 6.17 acres of Riparian Vegetation and 3.13 acres of Disturbed Prairie could be impacted by the project.

*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:

APPROVED 10 0047-05-054, etc. SH 5 EMSTandActualVegTable 4-15-20.xlsx

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

*Explain:

Based upon field investigation, the majority of the project area (existing and proposed ROW) consists of the Urban MOU vegetation type (182.45 acres). Additionally, approximately 1.59 acres of Agriculture, 6.17 acres of Riparian, 3.13 acres of Disturbed Prairie, 0.74 acres of Tallgrass Prairie, Grassland, and 0.64 acres of Open Water MOU vegetation types occur within the project area.



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

File Name:

APPROVED 08-0047-05-054, etc. SH 5 EMSTfigures 4-15-20.pdf
APPROVED 09 0047-05-054, etc. SH 5 ActualVegFigures 4-15-20.pdf
APPROVED 10 0047-05-054, etc. SH 5 EMSTandActualVegTable 4-15-20.xlsx
APPROVED 11 0047-05-054, etc. SH 5 Photos 4-15-20.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 - 1) Minimize impacts to wetland habitats including isolated ephemeral pools. 2) Water Quality BMPs 3) Amphibian BMPs

Water Quality BMPs

In addition to BMPs required for a TCEQ Storm Water Pollution Prevention Plan and/or 401 water quality permit:

- Minimize the use of equipment in streams and riparian areas during construction. When possible, equipment access should be from banks, bridge decks, or barges.
- When temporary stream crossings are unavoidable, remove stream crossings once they are no longer needed and stabilize banks and soils around the crossing.

Amphibian & Aquatic Reptile BMPs (applicable crossings include Barksdale Creek, Wilson Creek, tributary north of University Dr, tributary south of Wilmeth, tributary south of Weston, East Fork Trinity River)

- a) Contractors will be advised of potential occurrence in the project area, and to avoid harming the species if encountered.
- b) Minimize impacts to wetland, temporary and permanent open water features, including depressions, and riverine habitats.
- c) Maintain hydrologic regime and connections between wetlands and other aquatic features.
- d) Use barrier fencing to direct animal movements away from construction activities and areas of potential wildlife-vehicle collisions in construction areas directly adjacent, or that may directly impact, potential habitat for the target species.
- e) 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, using erosion control blankets or mats that contain no netting, or only contain loosely woven natural fiber netting is preferred. Plastic netting should be avoided to the extent practicable.
- f) Project specific locations (PSLs) proposed within state-owned ROW should be located in uplands away from aquatic features.
- g) When work is directly adjacent to the water, minimize impacts to shoreline basking sites (e.g., downed trees, sand bars, exposed bedrock) and overwinter sites (e.g., brush and debris piles, crayfish burrows) where feasible.
- h) Avoid or minimize disturbing or removing downed trees, rotting stumps, and leaf litter, which may be refugia for terrestrial amphibians, where feasible.
- i) If gutters and curbs are part of the roadway design, where feasible install gutters that do not include the side box inlet and include sloped (i.e. mountable) curbs to allow small animals to leave roadway. If this modification to the entire curb system is not possible, install sections of sloped curb on either side of the storm water drain for several feet to allow small animals to leave the roadway. Priority areas for these design recommendations are those with nearby wetlands or other aquatic features.
- j) For sections of roadway adjacent to wetlands or other aquatic features, install wildlife barriers that prevent climbing. Barriers should terminate at culvert openings in order to funnel animals under the road. The barriers should be of the same length as the adjacent feature or 80 feet long in each direction, or whichever is the lesser



of the two.

k) For culvert extensions and culvert replacement/installation, incorporate measures to funnel animals toward culverts such as concrete wing walls and barrier walls with overhangs.

l) When riprap or other bank stabilization devices are necessary, their placement should not impede the movement of terrestrial or aquatic wildlife through the water feature. Where feasible, biotechnical streambank stabilization methods using live native vegetation or a combination of vegetative and structural materials should be used.

Alligator snapping turtle - 1) Minimize impacts to wetland and riverine habitats. 2) Aquatic Reptile BMPs

White-faced Ibis, Wood Stork - Bird BMPs:

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.

Louisiana Pigtoe, Texas Heelsplitter - Freshwater Mussel BMPs (East Fork Trinity River and Wilson Creek):

- When work is in the water; survey project footprints for state listed species where appropriate habitat exists.
- When work is in the water and mussels are discovered during surveys; relocate state listed and SGCN mussels under TPWD authorization and implement Water Quality BMPs.
- When work is adjacent to the water; Water Quality BMPs implemented as part of the SWPPP for a construction general permit or any conditions of the 401 water quality certification for the project will be implemented. (Note, SWPPP and 401 BMPS are not listed in this PA). No TPWD Coordination required.

Timber rattlesnake, Texas garter snake - Terrestrial Reptile BMPs:

- 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 (l: l) 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.

Eastern spotted skunk - Contractors will be advised of potential occurrence in the project area, to avoid harming the species if encountered, and to avoid unnecessary impacts to dens.

TxDOT proposes implementing the following for species with no species-specific BMPs included in the BMP PA:

Franklin's Gull - Bird BMPs

Western Hog-Nosed Skunk - Contractors will be advised of potential occurrence in the project area, to avoid harming the species if encountered, and to avoid unnecessary impacts to dens

Eastern box turtle - Terrestrial Reptile BMPs



TxDOT Contact Information

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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)