Biological Evaluation Form

Main CSJ: 0914-05-195
Form Prepared By: Melissa Cross (CP&Y, Inc.)

Date of Evaluation: October 17, 2019
Proposed Letting Date: May 2020
District(s): Austin
County(ies): Williamson
Roadway Name: Kenney Fort Boulevard

☐ *Project has no Federal nexus.*
☐ *Project not assigned to TxDOT under the NEPA Assignment MOU*

Limits From: Forest Creek Drive
Limits To: State Highway 45

Project Description: Kenney Fort Boulevard (Blvd) is a major arterial roadway in the City of Round Rock's Transportation Master Plan. It was included in the City's first Transportation Master Plan, published in 1994, but has been part of the planning process since 1988. The roadway is being constructed in phases. Phase 1, which extends between Joe DiMaggio Blvd and Forest Creek Drive, was completed during the summer of 2013. The City of Round Rock, in cooperation with the Texas Department of Transportation (TxDOT), now proposes to construct phases 2 and 3 which would extend Kenney Fort Blvd approximately 1.5 miles from its current terminus at Forest Creek Drive south to State Highway (SH) 45.

Kenney Fort Blvd (Segments 2 and 3) would be a 6-lane arterial roadway that will ultimately connect SH 45 to United States Highway (US) 79. The proposed project includes improvements to Gattis School Road in the vicinity of its intersection with Kenney Fort Blvd. The improvements to Gattis School Road would extend from Meister Lane to Rusk Road. The proposed project also includes improvements at the existing SH 45 grade-separation. The project area covers a total area of 35.9 acres, consisting of 12.6 acres of state-owned ROW and 23.3 acres of private lands. In addition, a 0.2-acre permanent easement would be required.

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.

Endangered Species Act (ESA)

Yes — Is the action area of the proposed project within the range of federally protected species?

Yes — Did the USFWS IPaC system identify any endangered species that may occur or could potentially be affected by the proposed project activities?

Date that the IPaC system was accessed: May 21, 2019

Yes — Is the action area of the proposed project in suitable habitat of federally protected species?

No — Would the proposed project affect protected species and/or their habitat?

*Explain:

The project action area is within the range of 20 federally-listed endangered, threatened, or candidate species according to the IPaC: the Bone Cave harvestman (Texella reyesi), Tooth Cave spider (Neoleptoneta myopica),

Reddell harvestman (Texella reddelli), Barton Springs salamander (Eurycea sosorum), Georgetown salamander (Eurycea naufragia), Houston toad (Anaxyrus houstonensis), Salado Springs salamander (Eurycea chisholmensis), Jollyville Plateau salamander (Eurycea tonkawae), Golden-cheeked Warbler (Dendroica chrysoparia), Whooping Crane (Grus americana), Red Knot (Calidris canutus rufa), Interior Least Tern (Sterna antillarum), Piping Plover (Charadrius melodus), Tooth Cave ground beetle (Rhadine persephone), Coffin Cave mold beetle (Batrisodes texanus), Kretschmarr Cave mold beetle (Texamaurops reddelli), Smooth pimpleback (Cyclonaias houstonensis), Texas pimpleback (Quadrula petrina), Texas fawnsfoot (Truncilla macrodon), and the Bracted twistflower (Strepthanthus bracteatus). No habitat was present for any of the federally-listed endangered, threatened, or candidate species within the project action area.

Resources consulted or activities conducted to make effect determination (if applicable):

- ☒ TPWD County List
- ☒ USFWS Critical Habitat Maps
- ☐ Species Expert Consulted
- ☒ Aerial Photography
- ☐ Coastal Areas Maps
- ☒ Site Visit
- ☒ Topographic Map
- ☐ Species Study Conducted
- ☒ Karst Zone Maps
- ☒ Ecological Mapping System of Texas (EMST)
- ☒ Natural Diversity Database (NDD)

Other:

CP&Y, Inc. hydrologists were consulted to create a conceptual hydrogeological model for the groundwater flow in the vicinity of the Critical Habitat of the Jollyville Plateau Salamander within 1.5 miles of the project action area. See the attached Jollyville Salamander Memo for further details.

Add Comments

Migratory Bird Treaty Act (MBTA)

Yes — Is there potential for nesting birds to be present in the project action area during construction?

No — Were active nests identified during the site survey?

Yes — Will BMPs will be incorporated to protect migratory bird nests?

Comments: Remove Comments

Woody vegetation within the project action area has the potential to be utilized by nesting birds. Bird BMPs would be applied during the construction phase.

Bald and Golden Eagle Protection Act (BGEPA)

No — Does the proposed project have the potential to impact Bald or Golden Eagles?

Comments: Remove Comments

The project area does not contain any large bodies of water or any major streams. There are no hardwood forested areas within the project area, and the project area lacks trees large enough to provide suitable nesting habitat for eagles.

Fish and Wildlife Coordination Act (FWCA)

Yes — Does the project have impacts on one or more Waters of the U.S. or wetlands?

Yes — Is the project covered by a Nationwide Permit?

No — Is the project covered by an Individual Permit from the USACE?

Comments: Remove Comments

Approximately 0.18 acre (832.3 linear feet) of temporary impacts and 0.5 acre (2, 226.9 linear feet) of permanent impacts are anticipated to waters of the US, including wetlands, as a result of the proposed project. The proposed improvements would be covered by a NWP 14 with PCN, and with mitigation requirements as necessary.

Executive Order 13112 on Invasive Species

Yes — Would the proposed project be in compliance with EO 13112?

Comments: Remove Comments

In accordance with Executive Order 13112 on Invasive species, seeding and replanting with TxDOT-approved seed mixes containing native species would be done where possible. Soil disturbance would be minimized in the ROW in order to minimize invasive species establishment.

Executive Memorandum on Environmentally and Economically Beneficial Landscaping

Yes — Would landscaping be included in the proposed projects?

*Describe the landscaping activities:

Median areas with widths of 10-25 feet wide in long stretches between intersections will be landscaped with shade trees and turfgrass. Habiturf may be substituted for turf grass where feasible. Native grasses and ornamental shade trees planted in gravel beds would be utilized within the medians that area 15-25 feet wide and near intersections. Medians that are only 2-4ft wide will be surfaced with mid-sized river rock gravel rather than concrete. Regulations defined Executive Order 13112 will be followed when reseeding or planting landscaped areas.

Yes — Would the proposed project be in compliance with the Executive Memorandum on Beneficial Landscaping?

Add Comments

Farmland Protection Policy Act (FPPA)

Yes — Would the project require new ROW or permanent easements (Do not include temporary easements)?

No — Is the project located in a "non-urbanized area" that contain areas mapped as prime, unique, statewide important or locally important farmland by the NRCS Web Soil Survey or Census Bureau?

Comments: Remove Comments

The proposed project is located within the city limits of Round Rock, and is therefore already located and zoned to be in urban development.

General Comments

Findings

Endangered Species Act (ESA)

According to the U.S. Fish and Wildlife Service (USFWS), the project action area is within the range and in suitable habitat of a federally protected species. Based on the following information, the proposed project will not affect protected species and/or their habitat and will not impact areas that have been designated as critical habitat by the USFWS.

The project action area is within the range of 20 federally-listed endangered, threatened, or candidate species according to the IPaC: the Bone Cave harvestman (Texella reyesi), Tooth Cave spider (Neoleptoneta myopica), Reddell harvestman (Texella reddelli), Barton Springs salamander (Eurycea sosorum), Georgetown salamander (Eurycea naufragia), Houston toad (Anaxyrus houstonensis), Salado Springs salamander (Eurycea chisholmensis), Jollyville Plateau salamander (Eurycea tonkawae), Golden-cheeked Warbler (Dendroica chrysoparia), Whooping Crane (Grus americana), Red Knot (Calidris canutus rufa), Interior Least Tern (Sterna antillarum), Piping Plover (Charadrius melodus), Tooth Cave ground beetle (Rhadine persephone), Coffin Cave mold beetle (Batrisodes texanus), Kretschmarr Cave mold beetle (Texamaurops reddelli), Smooth pimpleback (Cyclonaias houstonensis), Texas pimpleback (Quadrula petrina), Texas fawnsfoot (Truncilla macrodon), and the Bracted twistflower (Strepthanthus bracteatus). No habitat was present for any of the federally-listed endangered, threatened, or candidate species within the project action area.

Consultation with the U.S. Fish and Wildlife Service (USFWS) will not be required. The USFWS IPaC website was accessed on May 21, 2019.

Essential Fish Habitat (EFH)

Tidally influenced waters do not occur within the project action area. Coordination with National Marine Fisheries Service is not required.

Coastal Barrier Resources Act (CBRA)

This project is not located within a designated CBRA map unit. Coordination with the U.S. Fish and Wildlife Service (USFWS) is not required.

Marine Mammal Protection Act (MMPA)

Marine mammals are protected under the Marine Mammal Protection Act (MMPA). The Texas coast provides suitable habitat and is within range of several marine mammals including the West Indian Manatee (*Trichechus manatus*), and bottlenose dolphin (*Tursiops truncatus*).

The project area does not contain suitable habitat for marine mammals. Coordination with NMFS is not required.

Migratory Bird Treaty Act (MBTA)

The Migratory Bird Treaty Act (MBTA) states that it is unlawful to kill, capture, collect, possess, buy, sell, trade, or transport any migratory bird, nest, young, feather, or egg in part or in whole, without a federal permit issued in accordance within the Act's policies and regulations.

A site survey did not identify active nests within the project action area. While no impact to migratory birds is expected, TxDOT will take all appropriate actions to prevent the take of migratory birds, their active nests, eggs, or young should they be discovered on the project site. Direction to contractors is provided on the standard EPIC sheet.

Bald and Golden Eagle Protection Act (BGEPA)

The proposed project does not have the potential to impact Bald or Golden Eagles.

Fish and Wildlife Coordination Act (FWCA)

The Fish and Wildlife Coordination Act (FWCA) of 1958 requires that federal agencies obtain comments from USFWS and TPWD. This coordination is required whenever a project involves impounding, diverting, or deepening a stream channel or other body of water.

The proposed project is authorized under a Section 404 of the Clean Water Act Nationwide Permit; therefore, no coordination under FWCA would be required.

Executive Order 13112 on Invasive Species (EO 13112)

Re-vegetation of disturbed areas would be in compliance with the Executive Order on Invasive Species (EO 13112). Regionally native and non-invasive plants will be used to the extent practicable in landscaping and re-vegetation.

Executive Memorandum on Beneficial Landscaping

Landscaping would be a part of the proposed project activities. Revegetation of disturbed areas will be in compliance with the Executive Memorandum on Environmentally and Economically Beneficial Landscaping. Regionally native and noninvasive plants will be used to the extent practicable in landscaping and revegetation.

Median areas with widths of 10-25 feet wide in long stretches between intersections will be landscaped with shade trees and turfgrass. Habiturf may be substituted for turf grass where feasible. Native grasses and ornamental shade trees planted in gravel beds would be utilized within the medians that area 15-25 feet wide and near intersections. Medians that are only 2-4ft wide will be surfaced with mid-sized river rock gravel rather than concrete. Regulations defined Executive Order 13112 will be followed when reseeding or planting landscaped areas.

Farmland Protection Policy Act (FPPA)

Coordination with the National Resources Conservation Service (NRCS) for FPPA would not be required because the project is not located in areas mapped as prime, unique, statewide or locally important nor is it located in an “urbanized area” identified by the NRCS Web Soil Survey or Census Bureau.

Suggested Attachments

Aerial Map (with delineated project boundaries)

USFWS T&E List

TPWD T&E List

Species Impact Table

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

NOAA EFH Mapper Printout

USFWS CBRA Mapper Printout

EMST Project MOU Summary Table (Required for TPWD Coordination)

TPWD SGCN List

FPPA Documentation

NRCS Web Soil Survey Map

Census Bureau Urbanized Area Map

Landscaping Plans

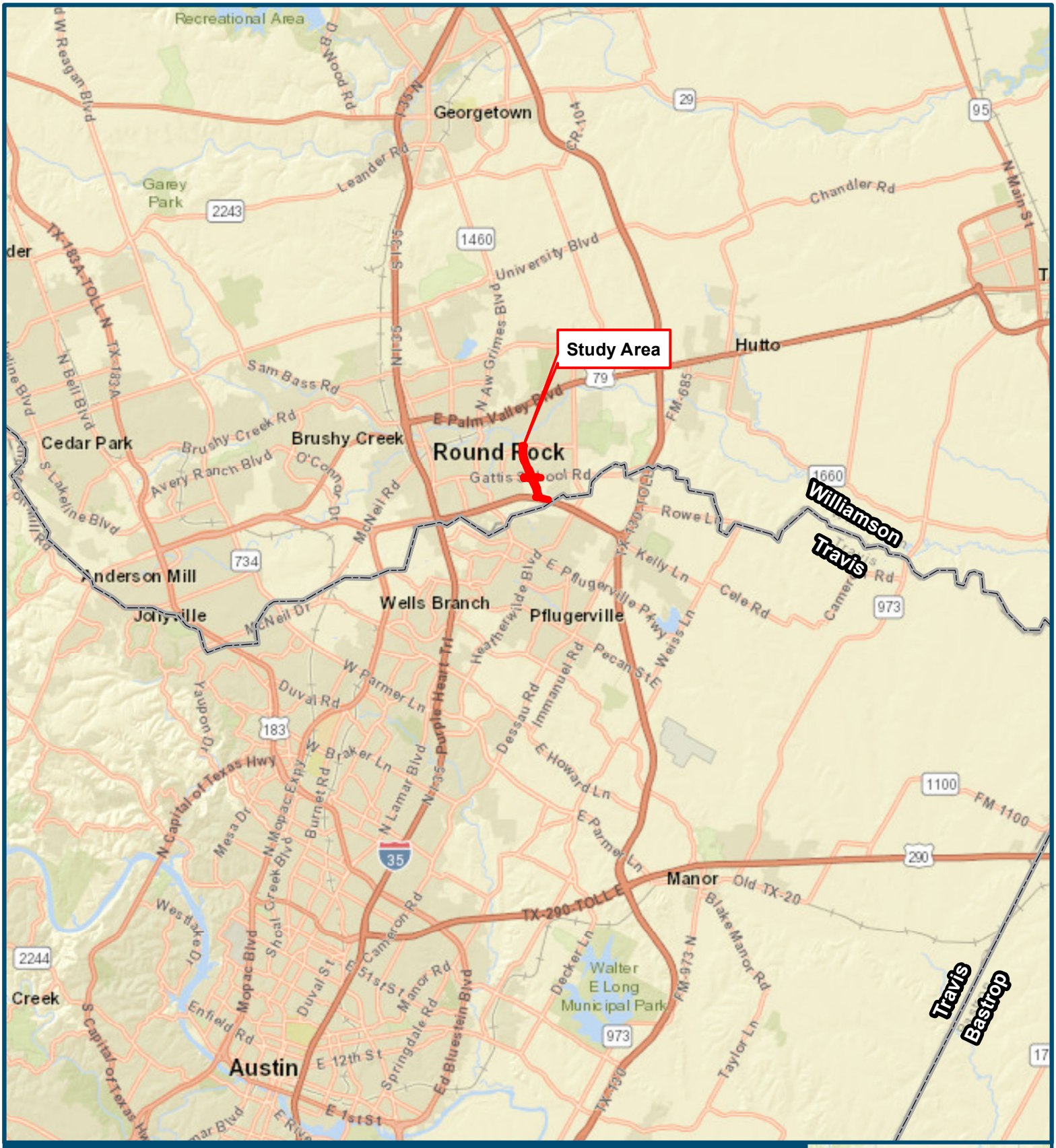
Photos (Required for TPWD Coordination)

Previous TPWD Coordination Documentation (if applicable)

Kenney Fort Blvd Extension
From Forest Creek Dr to SH 45
Williamson County, Texas
CSJ: 0914-05-195

Biological Evaluation Form and Tier I Site Assessment Attachments

Description	Number of Pages
Vicinity Map	1
Project Location Map	1
Aerial Map	2
USGS Topographic Map	1
Waters Map	1
Urbanized Areas Map	1
Mapped EMST Map	2
Verified EMST Map	2
EMST Table	1
NDD Map	1
NDD EOID List	22
Critical Habitat Map	1
JPS Memo	1
USFWS List of Threatened and Endangered Species for the Project Area	8
TPWD Annotated County Lists of Rare Species: Williamson County	14
Species of Greatest Conservation Need List	4
Species Impacts Table	16
Project Area Photographs	5



Vicinity Map

Proposed Kenney Fort Blvd Extension
From Forest Creek Dr
To SH 45
Williamson County, TX
CSJ: 0914-05-195

Study Area

NORTH

0 1 2 4
Miles

Basemap: ESRI Streets 2016

Aerial Map, Page 1 of 2

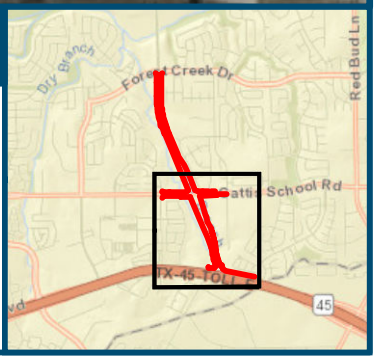
Proposed Kenney Fort Blvd Extension
From Forest Creek Dr
To SH 45
Williamson County, TX
CSJ: 0914-05-195

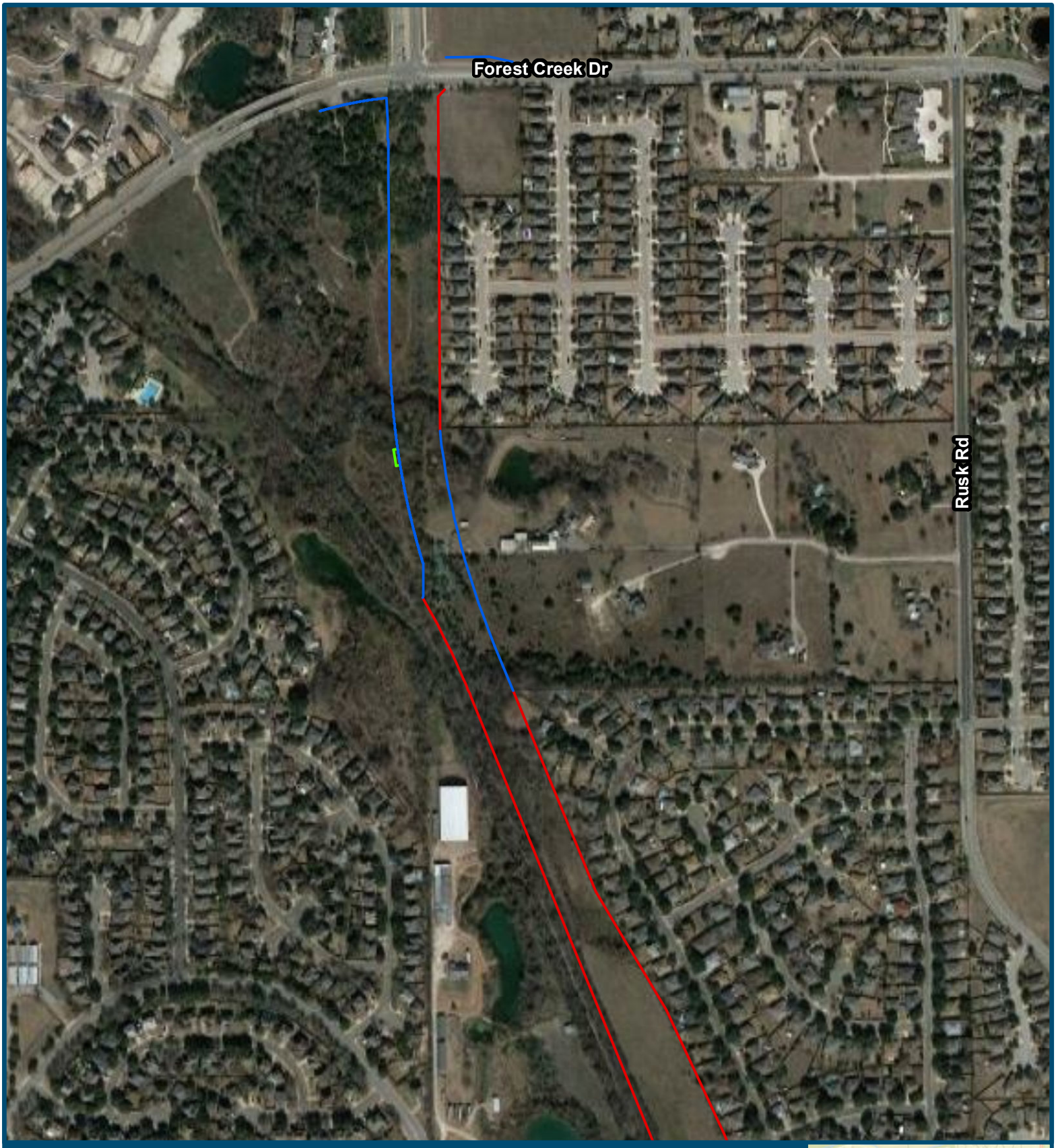
NORTH

0 500 1,000
Feet

Proposed ROW
Existing ROW
Easement

Basemap: ESRI Streets 2016, Texas Google Imagery





Aerial Map, Page 2 of 2

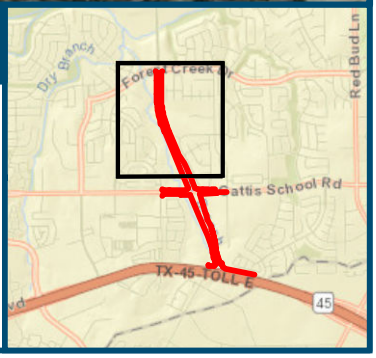
Proposed Kenney Fort Blvd Extension
From Forest Creek Dr
To SH 45
Williamson County, TX
CSJ: 0914-05-195

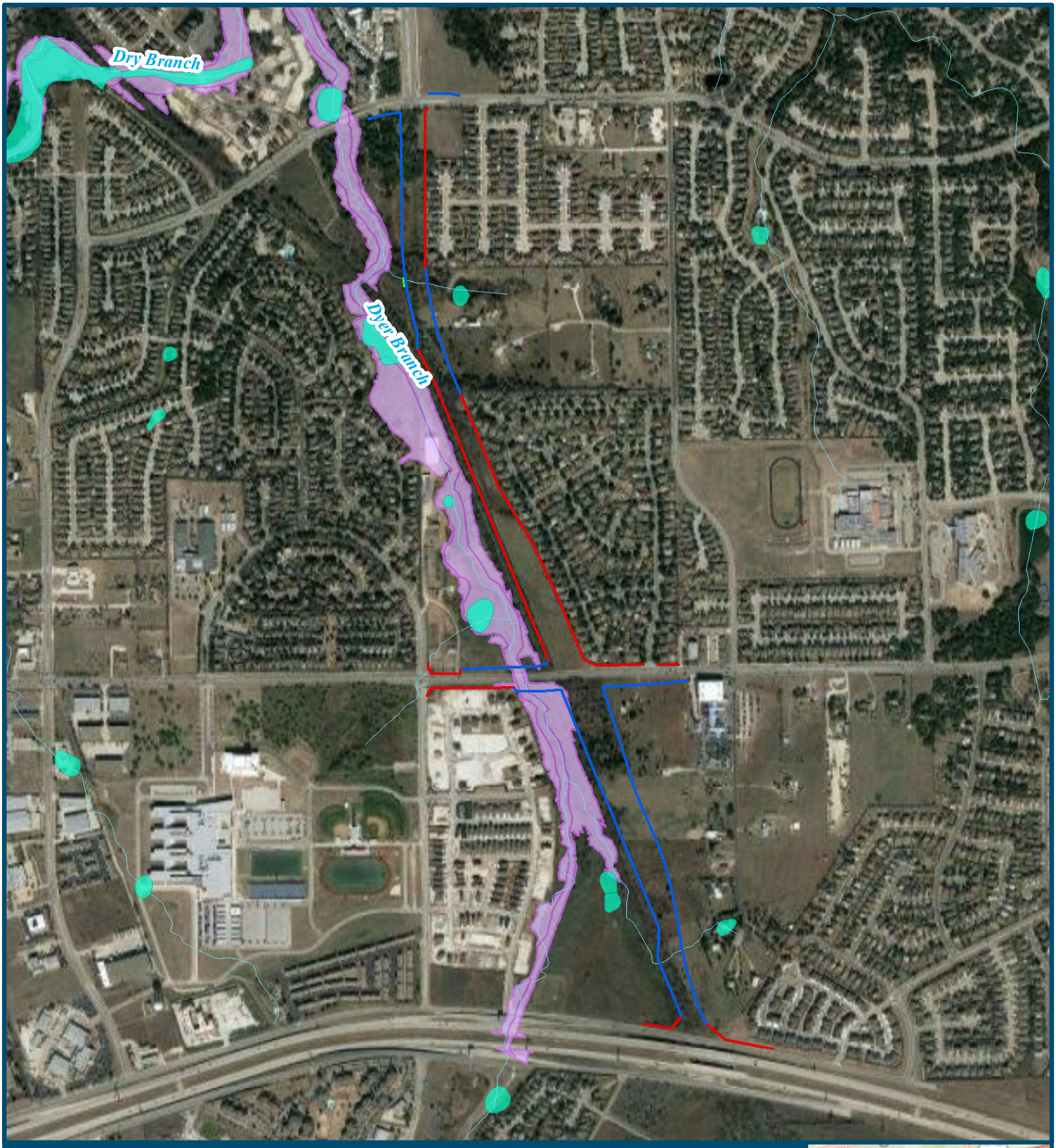
NORTH

0 500 1,000
Feet

Proposed ROW
Existing ROW
Easement

Basemap: ESRI Streets 2016, Texas Google Imagery





Waters Map

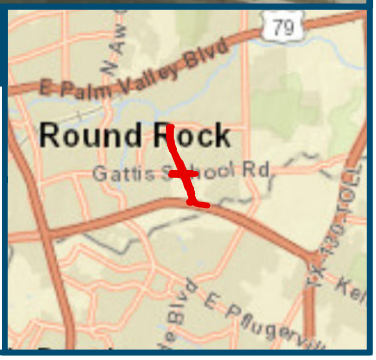
Proposed Kenney Fort Blvd Extension

From Forest Creek Dr
To SH 45
Williamson County, TX
CSJ: 0914-05-195

Proposed ROW
Existing ROW
Easement
NHD
NWI Wetlands
100yr Floodplain

NORTH

0 500 1,000
Feet



Basemap: ESRI Streets 2016, Texas Google Imagery

Urbanized Areas

Proposed Kenney Fort Blvd Extension

From Forest Creek Dr
To SH 45
Williamson County, TX
CSJ: 0914-05-195

Study Area

Urbanized Area

NORTH

0 0.5 1
Miles

Basemap: Google Imagery, 2018

EMST Mapped Vegetation Types, Page 1 of 2

Proposed Kenney Fort Blvd Extension

From Forest Creek Dr
To SH 45
Williamson County, TX
CSJ: 0914-05-195

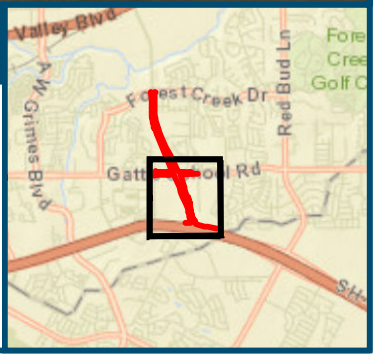
NORTH

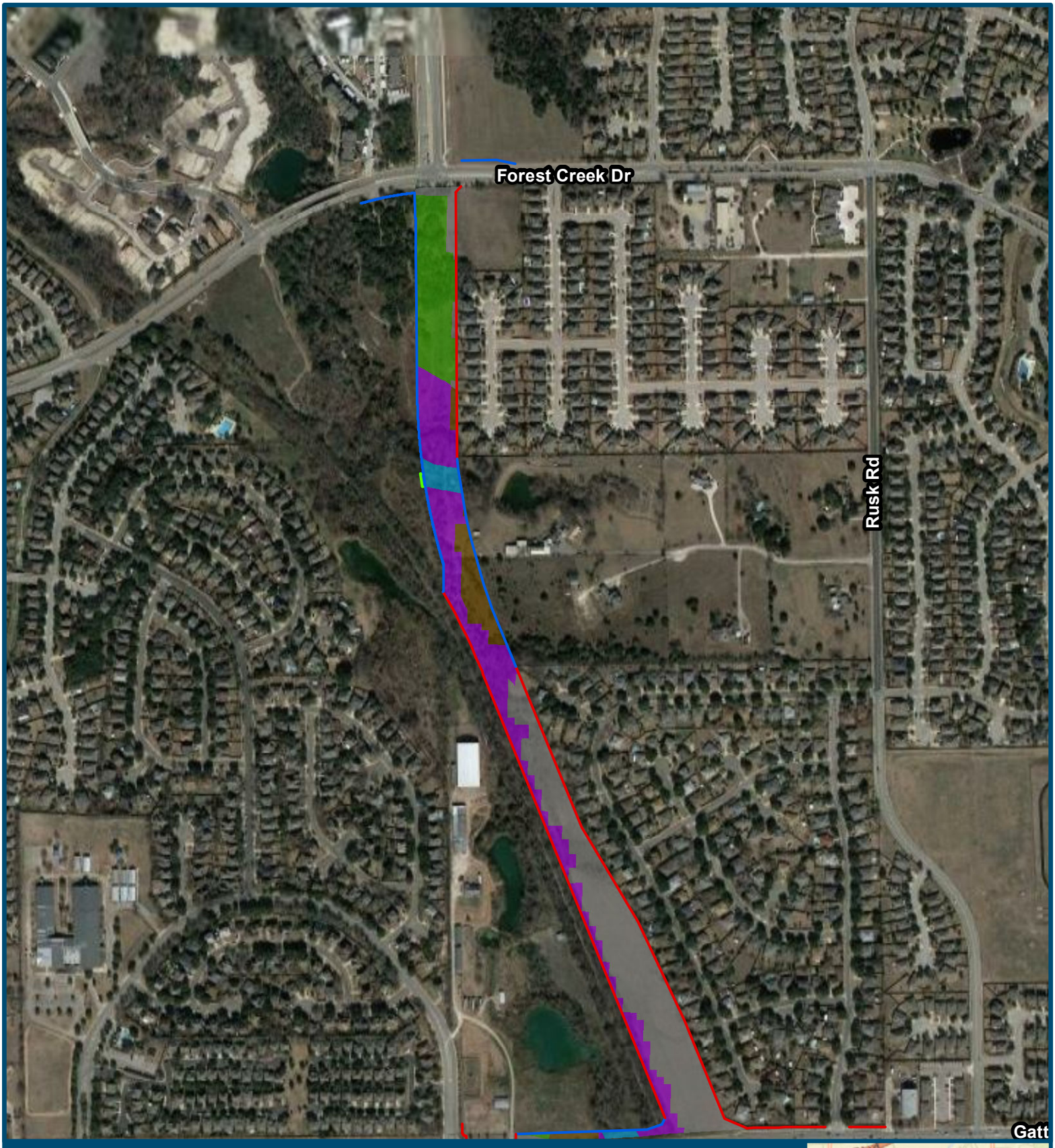
0 250 500
Feet

- Proposed ROW
- Existing ROW
- Easement

- Tallgrass Prairie, Grassland
- Riparian
- Edwards Plateau Savannah, Woodland, and Forest
- Disturbed Prairie
- Urban

Basemap: ESRI Streets 2016, Texas Google Imagery





EMST Mapped Vegetation Types, Page 2 of 2

Proposed Kenney Fort Blvd Extension

From Forest Creek Dr
To SH 45
Williamson County, TX
CSJ: 0914-05-195

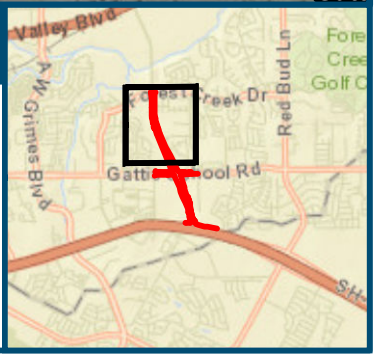
NORTH

0 250 500
Feet

- Proposed ROW
- Existing ROW
- Easement

- Tallgrass Prairie, Grassland
- Riparian
- Edwards Plateau Savannah, Woodland, and Forest
- Disturbed Prairie
- Urban

Basemap: ESRI Streets 2016, Texas Google Imagery



EMST Verified Vegetation Types, Page 1 of 2

Proposed Kenney Fort Blvd Extension

From Forest Creek Dr
To SH 45
Williamson County, TX
CSJ: 0914-05-195

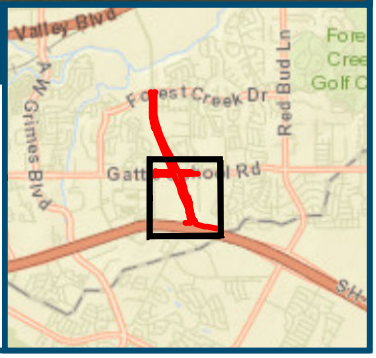
NORTH

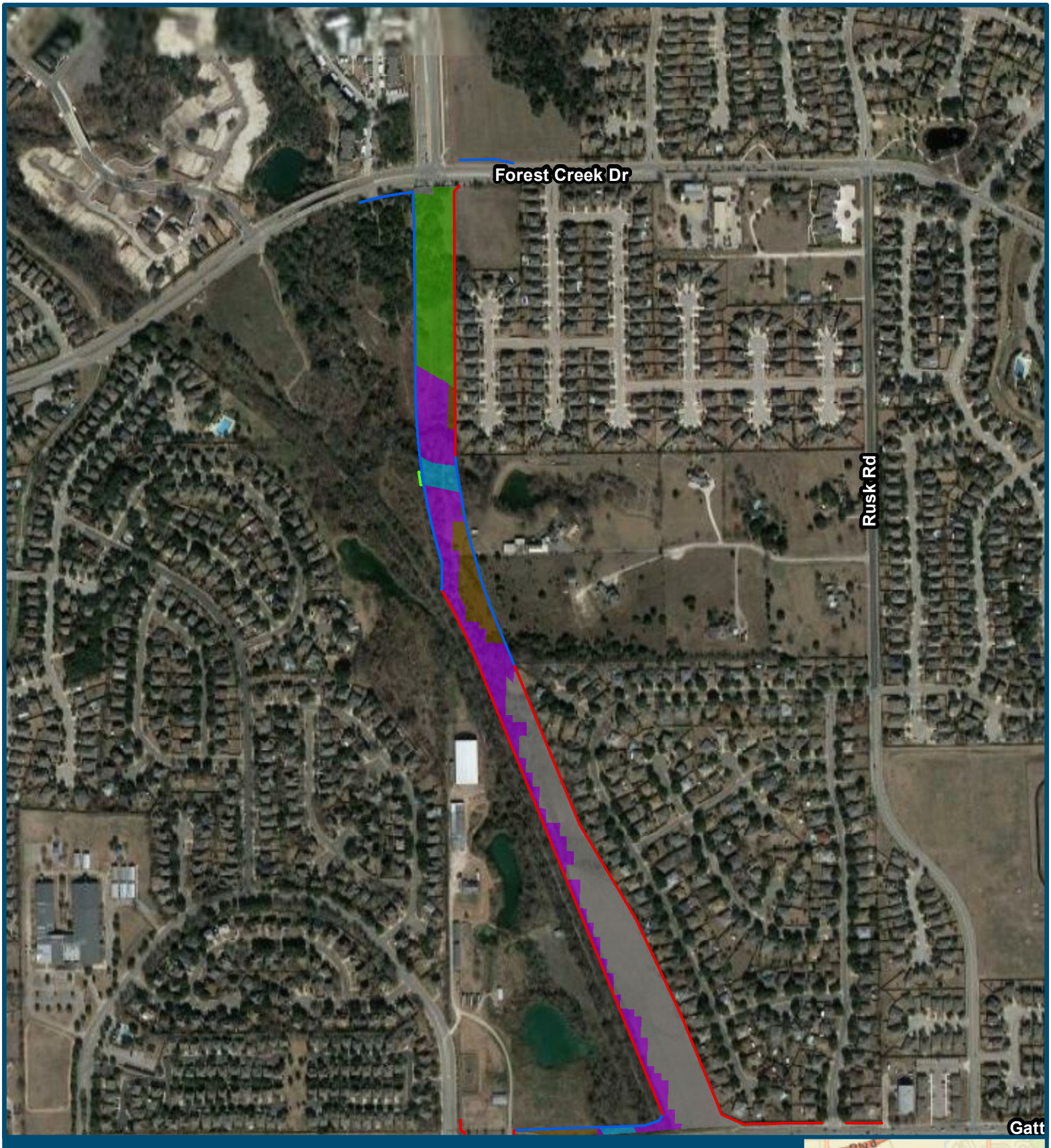
0 250 500
Feet

- Proposed ROW
- Existing ROW
- Easement

- Tallgrass Prairie, Grassland
- Riparian
- Edwards Plateau Savannah, Woodland, and Forest
- Disturbed Prairie
- Urban

Basemap: ESRI Streets 2016, Texas Google Imagery





EMST Verified Vegetation Types, Page 2 of 2

Proposed Kenney Fort Blvd Extension

From Forest Creek Dr
To SH 45
Williamson County, TX
CSJ: 0914-05-195

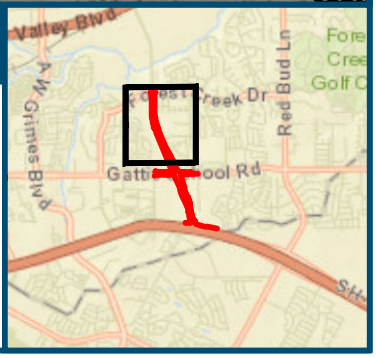
NORTH

0 250 500
Feet

Proposed ROW
Existing ROW
Easement

Tallgrass Prairie, Grassland
Riparian
Edwards Plateau Savannah, Woodland, and Forest
Disturbed Prairie
Urban

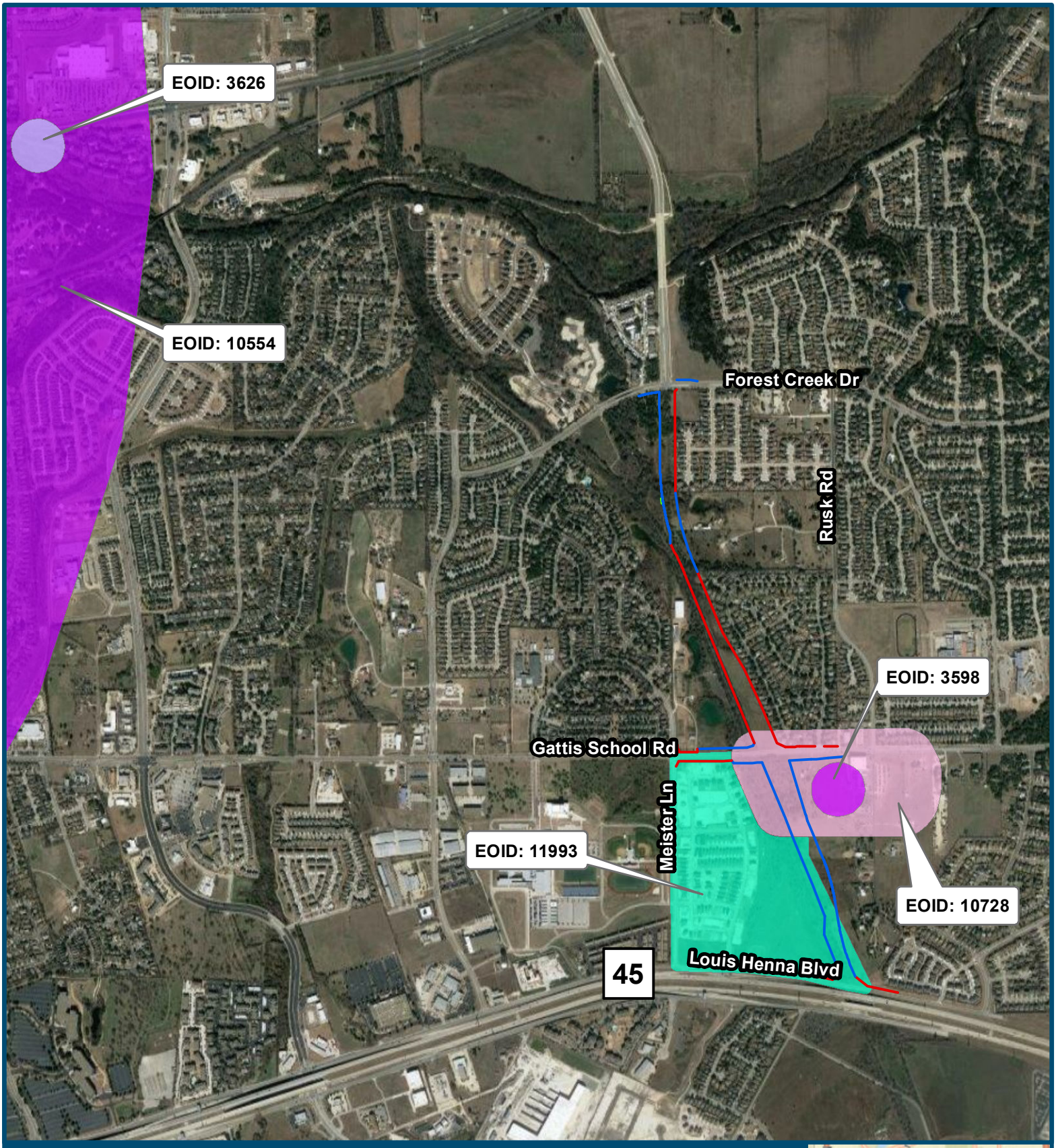
Basemap: ESRI Streets 2016, Texas Google Imagery



EMST Data - Kenney Fort Boulevard, Williamson County - CSJ: 0914-05-195							
Common Name	**EMST ID Number**	**MOU Vegetation Type**	**EMST Mapped Acreage**	**MOU Acreage**	**Field Verified Acreage**	**Coordination Threshold**	**Threshold Met?**
Native Invasive: Deciduous Woodland	9104	Disturbed Prairie	10.86	13.04	14.79	3.00	Yes
Native Invasive: Mesquite Shrubland	9106		2.18				
Edwards Plateau: Deciduous Oak - Evergreen Motte and Woodland	1103	Edwards Plateau Savannah, Woodland, and Shrubland	2.03	6.95	6.90	1.00	Yes
Edwards Plateau: Oak - Hardwood Motte and Woodland	1104		1.68				
Edwards Plateau: Savanna Grassland	1107		3.23				
Central Texas: Riparian Hardwood Forest	1904	Riparian	1.19	1.35	0.82	0.10	Yes
Central Texas: Riparian Deciduous Shrubland	1906		0.00				
Central Texas: Riparian Herbaceous Vegetation	1907		0.17				
Blackland Prairie: Disturbance or Tame Grassland	207	Tallgrass Prairie, Grassland	5.48	5.48	4.86	2.00	Yes
Urban: High Intensity	9410	Urban	0.05	9.28	8.72	N/A	N/A
Urban: Low Intensity	9411		9.23				
		Total	36.10	36.10	36.10	N/A	N/A

***The project area is located in the Blackland Prairie Level III Ecoregion**

Common Vegetation Types*	**Field-Observed Land Cover Characteristics**
Native Invasive: Deciduous Woodland	Broadly-defined type may have species such as hackberry, various oaks, cedar elms, sweetgum, honey mesquite, and yaupon. Other species may be present as well.
Native Invasive: Mesquite Shrubland	Honey mesquite is often the dominant species of this broadly-defined type, but huisache, hackberry, ashe juniper, cedar elm, and sumacs may be present as well.
Edwards Plateau: Deciduous Oak - Evergreen Motte and Woodland	Woodlands that are intermediate between those strongly dominated by evergreen components of Ashe juniper and live oaks and by deciduous components of various oaks.
Edwards Plateau: Oak - Hardwood Motte and Woodland	Mainly dominated by Texas oak, hackberry, and cedar elms. Other oak species and honey mesquite may be present as well, and smaller components of ashe junipers and live oaks.
Edwards Plateau: Savanna Grassland	Areas where little to no vegetative cover. Dirt parking beneath the bridge.
Central Texas: Riparian Hardwood Forest	As described for the system, with deciduous species dominating the canopy.
Central Texas: Riparian Deciduous Shrubland	Shrublands in riparian sites that may be dominated by deciduous dhrubs such as possumhaw, honey mesuite, black willow, dogwoods, privets, and buttonbush.
Central Texas: Riparian Herbaceous Vegetation	Riparian sites lacking overstory or shrub canopy but retaining herbaceous cover.
Blackland Prairie: Disturbance or Tame Grassland	Non-native grasses may be present, as well as weedy forbs such as ragweed and broomweed. Honey mesquite and huisache may be dense. Native grasses such as little bluestem, silver bluestem, Indiangrass, threeawns, and hairy grama are an important components.
Urban: High Intensity	Composed of highways and major developments.
Urban: Low Intensity	Composed of rural roadways, maintained right-of-way and other urban landscapes.



NDD Map

****NOT FOR PUBLIC DISPLAY****

Proposed Kenney Fort Blvd Extension

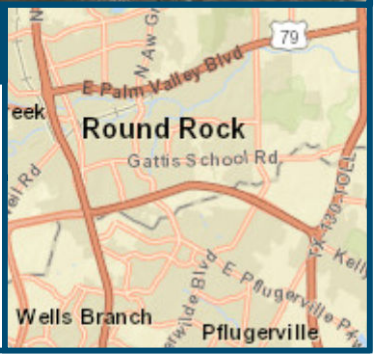
From Forest Creek Dr
To SH 45
Williamson County, TX
CSJ: 0914-05-195

- Proposed ROW
- Existing ROW
- Easement
- Texas almond
- Little Bluestem-indiangrass Series
- Vertisol Blackland Prairie
- Jollyville Plateau Salamander

NORTH

0 500 1,000
Feet

Basemap: ESRI Streets 2016, Texas Google Imagery



Element Occurrence Record

Scientific Name: Batrisodes texanus **Occurrence #:** 1 **Eo Id:** 5666

Common Name: Coffin Cave Mold Beetle **Track Status:** Track all extant and selected historical EOs

Identification Confirmed: Y - Yes **TX Protection Status:**

Global Rank: G1G2 **State Rank:** S1 **Federal Status:** LE

Location Information:

Directions

OFF CAMPUS CAVE, SOUTHWEST OF GEORGETOWN, WEST OF IH-35 AND SOUTH OF HIGHWAY 2243

Survey Information:

First Observation: 1989-04-08 **Survey Date:** **Last Observation:** 1993

Eo Type: **Eo Rank:** **Eo Rank Date:**

Observed Area:

Comments:

General Description: ENTRANCE TO CAVE IS A SINKHOLE

Comments: FORMERLY CONSIDERED THE SAME SPECIES AS TEXAMAUROPS REDDELLI UNTIL CHANDLER 1992 TAXONOMICALLY SPLIT IT INTO TWO SPECIES AND PLACED THE WILLIAMSON COUNTY POPULATIONS INTO BATRISODES TEXANUS

Protection Comments: FENCE ENTRANCE

Management Comments:

Data:

EO Data: SEE SOURCE FOR FAUNA LIST

Community Information:

Scientific Name:	Stratum:	Dominant:	Lifeform:	Composition Note:

Reference:

Citation:

ELLIOTT, WILLIAM R. AND JAMES R. REDDELL. 1993. TABLE OF ENDANGERED CAVE INVERTEBRATES IN TRAVIS AND WILLIAMSON COUNTIES. JULY 12, 1993.

Chandler, Donald S. 1992. The Pselaphidae (Coleoptera) of Texas caves. Texas Memorial Museum. Speleological Monograph, 3:241-253.

Elliott, W.R. and J.R. Reddell. 1989. The status and range of five endangered arthropods from caves in the Austin , Texas, region. Prepared for Texas Parks & Wildlife Dept. and Texas Nature Conservancy for the Austin Regional Habitat Conservation Plan, Austin, TX. 103 pp. 1 December 1989.

Specimen:

Element Occurrence Record

Scientific Name: Batrisodes texanus
Occurrence #: 3
Eo Id: 6123
Common Name: Coffin Cave Mold Beetle
Track Status: Track all extant and selected historical EOs
Identification Confirmed: Y - Yes
TX Protection Status:
Global Rank: G1G2
State Rank: S1
Federal Status: LE

Location Information:

Directions

INNER SPACE CAVERN; WEST OF IH-35 AT INTERSECTION WITH HIGHWAY 418

Survey Information:

First Observation:
Survey Date:
Last Observation: 1993
Eo Type:
Eo Rank:
Eo Rank Date:
Observed Area:

Comments:

General Description: CAVE

Comments:

Protection Comments:

Management Comments:

Data:

EO Data:

Community Information:

Scientific Name:	Stratum:	Dominant:	Lifeform:	Composition Note:

Reference:

Citation:

ELLIOTT, WILLIAM R. AND JAMES R. REDDELL. 1993. TABLE OF ENDANGERED CAVE INVERTEBRATES IN TRAVIS AND WILLIAMSON COUNTIES. JULY 12, 1993.

Specimen:

Element Occurrence Record

Scientific Name: Brickellia dentata **Occurrence #:** 10 **Eo Id:** 8754

Common Name: gravelbar brickellbush **Track Status:** Track all extant and selected historical EOs

Identification Confirmed: **TX Protection Status:**

Global Rank: G3G4 **State Rank:** S3S4 **Federal Status:**

Location Information:

Directions

Survey Information:

First Observation: **Survey Date:** **Last Observation:**

Eo Type: **Eo Rank:** **Eo Rank Date:**

Observed Area:

Comments:

General Description:

Comments:

Protection Comments:

Management Comments:

Data:

EO Data:

Community Information:

Scientific Name:	Stratum:	Dominant:	Lifeform:	Composition Note:

Reference:

Citation:

Specimen:

Element Occurrence Record

Scientific Name: Conepatus leuconotus **Occurrence #:** 90 **Eo Id:** 14348

Common Name: Western hog-nosed skunk **Track Status:** Track all extant and selected historical EOs

Identification Confirmed: Y - Yes **TX Protection Status:**

Global Rank: G4 **State Rank:** S4 **Federal Status:**

Location Information:

Directions

The specimen label states that it was located in Williamson County, TX.

Survey Information:

First Observation: 1994-07 **Survey Date:** 1994-07 **Last Observation:** 1994-07

Eo Type: **Eo Rank:** H **Eo Rank Date:** 1994-07

Observed Area:

Comments:

General Description:

Comments:

Protection Comments:

Management Comments:

Data:

EO Data: July 1994: One male preserved specimen of unknown preservation type.

Community Information:

Scientific Name:	Stratum:	Dominant:	Lifeform:	Composition Note:

Reference:

Citation:

Ferguson, Adam. 2014. Texas Skunk Record Database regarding five specices of skunk in Texas.

Specimen:

Texas State University, San Marcos, TX; unknown (#unknown), Catalog #unknown, July 1994, TXSU.

Element Occurrence Record

Scientific Name: Desmanthus reticulatus **Occurrence #:** 11 **Eo Id:** 10460

Common Name: net-leaf bundleflower **Track Status:** Track all extant and selected historical EOs

Identification Confirmed: Y - Yes **TX Protection Status:**

Global Rank: G3 **State Rank:** S3 **Federal Status:**

Location Information:

Directions

NW of Manor, 2 mi N of Hwy 290 on county dump road.

Survey Information:

First Observation: **Survey Date:** **Last Observation:**

Eo Type: **Eo Rank:** **Eo Rank Date:**

Observed Area:

Comments:

General Description:

Comments: Complete specimen citation: NW of Manor, 2 mi N of Hwy 290 on county dump road, Luckow 3593 (TEX); cited in Luckow (1993), not seen by WRC.

Protection Comments:

Management Comments:

Data:

EO Data:

Community Information:

Scientific Name:	Stratum:	Dominant:	Lifeform:	Composition Note:

Reference:

Citation:

Luckow, M. 1993. Monograph of Desmanthus (Leguminosae-Mimosoideae). Systematic Botany Monographs Vol. 38. 166 pp.

Specimen:

Luckow, M. (3593). TEX-LL.

Element Occurrence Record

Scientific Name: Eurycea tonkawae **Occurrence #:** 3 **Eo Id:** 3025

Common Name: Jollyville Plateau Salamander **Track Status:** Track all extant and selected historical EOs

Identification Confirmed: Y - Yes **TX Protection Status:**

Global Rank: G1 **State Rank:** S2S3 **Federal Status:** LT

Location Information:

Directions

Austin, Balcones Community Park Spring, tributary canyon to Walnut Creek, access to park by Duval Road and Amherst Road West off Mopac North.

Survey Information:

First Observation: 1990-06 **Survey Date:** 2012-02-17 **Last Observation:** 2012-02-17

Eo Type: **Eo Rank:** E **Eo Rank Date:** 2012-02-17

Observed Area:

Comments:

General Description: A very small spring (less than 1 square meter pool area) coming out of base of Walnut Formation and extending back into canyon side.

Comments: Reference U12COA01TXUS from the City of Austin has significant biotic and abiotic data relating to water quality for this site.

Protection Comments:

Management Comments:

Data:

EO Data: No Date: 2 specimens were collected. Jun 1990: 2 specimens were collected. 18 Jul 1991: 2 specimens were collected. 12 Sep 1991: 3 specimens were collected. 17 Mar 1992: 4 specimens were collected. 27 May 1993: 5 specimens were collected. 13 Jan 2004: 3 salamanders were observed. 08 Apr 2004: 3 salamanders were observed. 20 Jul 2004: 1 salamander was observed. 25 Oct 2004: 0 salamanders were observed. 16 Mar 2005: 1 salamander was observed. 01 Jul 2005: 1 salamander was observed. 23 Sep 2005: 1 salamander was observed. 22 Dec 2005: 0 salamanders were observed. 10 Mar 2006: 0 salamanders were observed. 18 May 2006: 0 salamanders were observed. 12 Oct 2006: 0 salamanders were observed. 29 Dec 2006: 0 salamanders were observed. 21 Feb 2008: 0 salamanders were observed. 17 Apr 2008: 0 salamanders were observed. 07 Aug 2008: 0 salamanders were observed. 03 Nov 2008: 0 salamanders were observed. 13 Feb 2009: 0 salamanders were observed. 30 Apr 2009: 0 salamanders were observed. 14 Jul 2009: 0 salamanders were observed. 14 Oct 2009: 0 salamanders were observed. 28 May 2010: 0 salamanders were observed. 08 Jun 2010: 3 salamanders were observed. 26 Jul 2010: 1 salamander was observed. 20 Oct 2010: 2 salamanders were observed. 11 Feb 2011: 0 salamanders were observed. 27 Apr 2011: 2 salamanders were observed. 19 Jul 2011: 0 salamanders were observed. 19 Oct 2011: 1 salamander was observed. 17 Feb 2012: 1 salamander was observed.

Community Information:

Scientific Name:	Stratum:	Dominant:	Lifeform:	Composition Note:

Reference:

Citation:

Price, A.H. 1991. Field survey to Balcones Community Park on July 18, 1991.

Price, A.H. 1991. Field survey of Jollyville Plateau Springs, September 12-13, 1991.

Chippindale, P. T., A. H. Price, J. J. Wiens, and D. M. Hillis. 2000. Phylogenetic relationships and systematic revision of central Texas hemidactyliine plethodontid salamanders. Herpetological Monographs 14:1-80.

Bendik, Nathan F. 2010. Jollyville Plateau Salamander Status Report. City of Austin Watershed Protection SR-11-10. 35 pp.

Hillis, David M., and Paul T. Chippindale. 1999. Final Report. Project No. 3.4: Status Reportof Central Texas Salamanders (Genus: Eurycea). Grant No. E-1-4. Endangered and Threatened Species Conservation. Submitted to Texas Parks and Wildlife Dept., Austin, TX. 30 November 1999.

Hanks, Cullen. 2011. Compilation of Eurycea specimen records for Central Texas extracted from online databases.

City of Austin. 2012. Observation data for Eurycea salamanders in the Austin area from the Field Sampling Database maintained by the City of Austin's Environmental Resource Management Division of the Watershed Protection Dept.

Chippindale, P. 2010. Population genetics, species boundaries, and conservation of the Jollyville Plateau salamander (Eurycea tonkawae). Interim Report to Texas Parks & Wildlife Department.

Specimen:

Amphibian and Reptile Diversity Research Center, University of Texas at Arlington, TX; P. T. Chippendale and A. H. Price (# unknown), Catalog # 52989-52990, no date, UTA.

Texas Natural History Collections, University of Texas at Austin, TX; Andy Price (#AHP 3216-3217), Catalog #50974-50975, 18 July 1991, TNHC.

Texas Natural History Collections, University of Texas at Austin, TX; D. M. Hillis and P. Chippindale (#DMH 91: 80-81), Catalog #50972-50973, June 1990, TNHC.

Texas Natural History Collections, University of Texas at Austin, TX; P. Chippindale and A. H. Price (#AHP 3242-3244), Catalog #50976-50978, 12 September 1991, TNHC.

Texas Natural History Collections, University of Texas at Austin, TX; P. Chippindale and Tom Jones (#DMH 93:6-9), Catalog #55132-55136, 27 May 1993, TNHC.

Texas Natural History Collections, University of Texas at Austin, TX; Price and Chippindale (#AHP 3336-3338, 3343), Catalog #50979-50981, 55387, 17 March 1992, TNHC.

Element Occurrence Record

Scientific Name: Eurycea tonkawae **Occurrence #:** 5 **Eo Id:** 5719

Common Name: Jollyville Plateau Salamander **Track Status:** Track all extant and selected historical EOs

Identification Confirmed: Y - Yes **TX Protection Status:**

Global Rank: G1 **State Rank:** S2S3 **Federal Status:** LT

Location Information:

Directions

Krienke Spring, 3.7 miles NW of Round Rock. Spring is located on the N side of Brushy Creek just S of 3107 Sam Bass Rd and just East of Tankawa Trail.

Survey Information:

First Observation: 1947-02-14 **Survey Date:** 2011-12-08 **Last Observation:** 2011-12-08

Eo Type: **Eo Rank:** E **Eo Rank Date:** 2011-12-08

Observed Area:

Comments:

General Description: The feature is a small, permanent spring emanating from the base of a low limestone bluff immediately adjacent to an impounded portion of Brushy Creek. The spring run is approximately 0.6m wide and 6m long. It feeds directly into a fish-filled pool. The measured discharge for Krienke Spring on December 8, 2011 was 0.37 cubic feet per second.

Comments: TNHC T1802-16, T6334-9, 31013(42), 63 SPECIMENS. On July 5th, 1951, one specimen was collected 3.6 miles WNW of Round Rock; specimen record: Los Angeles County Museum of Natural History, Los Angeles, CA; Unknown collector (# unknown), Catalog # 86244, 05 July 1951, LACM.

Protection Comments:

Management Comments:

Data:

EO Data: 14 Feb 1947: 6 specimens were collected. 14 Feb 1948: 15 specimens were collected. 5 Jul 1951: 42 specimens were collected. 9 Jan 2008: 5 specimens were collected. 8 Dec 2011: 2 adults and 2 juveniles were trapped.

Community Information:

Scientific Name:	Stratum:	Dominant:	Lifeform:	Composition Note:

Reference:

Citation:

Sweet, Samuel S. 1982. A distributional analysis of epigean populations of Eurycea neotenes in Central Texas , with comments on the origin of troglobitic populations. Herpetologica 38(3):430-444.

Gluesenkamp, Andy. 2011. Field survey of 8 December to Krienke Spring in Northwest Round Rock for Eurycea tonkawae.

Sweet, Samuel S. 1978. The Evolutionary Development of the Texas Eurycea (Amphibia: Plethodontidae). Ph.D. dissertation. University of California, Berkeley. 450 pp.

Hanks, Cullen. 2011. Compilation of Eurycea specimen records for Central Texas extracted from online databases.

Saienga, Gene. 2011. E-mail of 5 December to David Hillis and Nathan Bendik regarding the true location of Krienke Spring, a known collecting locality for Eurycea tonkawae.

Slade, Jr., Raymond M. 2011. Discharge measurement of Krienke Spring near Round Rock Texas, 8 December 2011.

Specimen:

Amphibian and Reptile Diversity Research Center, University of Texas at Arlington, TX; Andy Gluesenkamp (# AGG 1447-1451), Catalog #s unknown, 9 January 2008, UTA.

Texas Natural History Collections, University of Texas at Austin, TX; Flury (#AGF 1280-1285), Catalog #6334-6339, 14 February 1947, TNHC.

Texas Natural History Collections, University of Texas at Austin, TX; Flury (#unknown), Catalog #1802-1816, 14 February 1948, TNHC.

Texas Natural History Collections, University of Texas at Austin, TX; unknown (#unknown), Catalog #31012, 53465-53505, 5 July 1951, TNHC.

Element Occurrence Record

Scientific Name: Eurycea tonkawae **Occurrence #:** 6 **Eo Id:** 3626

Common Name: Jollyville Plateau Salamander **Track Status:** Track all extant and selected historical EOs

Identification Confirmed: Y - Yes **TX Protection Status:**

Global Rank: G1 **State Rank:** S2S3 **Federal Status:** LT

Location Information:

Directions

Brushy Creek Spring, Round Rock, 1.5 miles NE on Brushy Creek.

Survey Information:

First Observation: 1948-02-14 **Survey Date:** 1994-10-04 **Last Observation:** 1994-10-04

Eo Type: **Eo Rank:** E **Eo Rank Date:** 1994-10-04

Observed Area:

Comments:

General Description: Early 1990's: A large spring just below US Highway 79; cascades down into Brushy Creek; site originally a park or hotel, now in ruins. Spring has been impacted and has a lot of trach embedded in the substrate. Site is overgrown with second growth.

Comments:

Protection Comments:

Management Comments:

Data:

EO Data: 14 Feb 1948: 1 specimen was collected. 23 Jan 1990: 1 specimen was collected. 13 Sep 1990: 5 specimens were collected. 13 Sep 1991: 2 specimens were collected. 4 Oct 1994: 2 specimens were collected.

Community Information:

Scientific Name:	Stratum:	Dominant:	Lifeform:	Composition Note:

Reference:

Citation:

Sweet, Samuel S. 1982. A distributional analysis of epigean populations of Eurycea neotenes in Central Texas , with comments on the origin of troglobitic populations. Herpetologica 38(3):430-444.

Price, A.H. 1991. Field survey of Jollyville Plateau Springs, September 12-13, 1991.

Chippindale, P. T., A. H. Price, J. J. Wiens, and D. M. Hillis. 2000. Phylogenetic relationships and systematic revision of central Texas hemidactyliine plethodontid salamanders. Herpetological Monographs 14:1-80.

Hillis, David M., and Paul T. Chippindale. 1999. Final Report. Project No. 3.4: Status Reportof Central Texas Salamanders (Genus: Eurycea). Grant No. E-1-4. Endangered and Threatened Species Conservation. Submitted to Texas Parks and Wildlife Dept., Austin, TX. 30 November 1999.

Hanks, Cullen. 2011. Compilation of Eurycea specimen records for Central Texas extracted from online databases.

Sweet, Samuel S. 1978. The Evolutionary Development of the Texas Eurycea (Amphibia: Plethodontidae). Ph.D. dissertation. University of California, Berkeley. 450 pp.

Specimen:

Texas Natural History Collections, University of Texas at Austin, TX; D. M. Hillis and P. Chippindale (#DMH 90:15), Catalog #61384, 23 January 1990, TNHC.

Texas Natural History Collections, University of Texas at Austin, TX; David M. Hillis and Keith Cr (#PC/DMH 94:5-6), Catalog #54225-54226, 4 October 1994, TNHC.

Texas Natural History Collections, University of Texas at Austin, TX; Flury (#AGF 1291), Catalog #6242, 14 February 1948, TNHC.

Texas Natural History Collections, University of Texas at Austin, TX; Price and Chippindale (#AHP 3257-3258,3289-3291), Catalog #50987-50991, 13 September 1990, TNHC.

Element Occurrence Record

Scientific Name: Eurycea tonkawae **Occurrence #:** 46 **Eo Id:** 9377

Common Name: Jollyville Plateau Salamander **Track Status:** Track all extant and selected historical EOs

Identification Confirmed: Y - Yes **TX Protection Status:**

Global Rank: G1 **State Rank:** S2S3 **Federal Status:** LT

Location Information:

Directions

Avery Deer Spring, Brushy Creek Watershed, Williamson County, Texas.

Survey Information:

First Observation: 2009-05-01 **Survey Date:** 2011-11-02 **Last Observation:** 2011-11-02

Eo Type: **Eo Rank:** E **Eo Rank Date:** 2011-11-02

Observed Area:

Comments:

General Description: Spring

Comments: Reference U12COA01TXUS from the City of Austin has significant biotic and abiotic data relating to water quality for this site.

Protection Comments:

Management Comments:

Data:

EO Data: 15 Dec 2004: 0 salamanders were observed. 01 May 2009: 37 salamanders were observed. 28 Apr 2010: 87 salamanders were observed. 19 May 2011: 97 salamanders were observed. 02 Nov 2011: 10 salamanders were observed.

Community Information:

Scientific Name:	Stratum:	Dominant:	Lifeform:	Composition Note:

Reference:

Citation:

Bendik, Nathan F. 2010. Jollyville Plateau Salamander Status Report. City of Austin Watershed Protection SR-11-10. 35 pp.

City of Austin. 2012. Observation data for Eurycea salamanders in the Austin area from the Field Sampling Database maintained by the City of Austin's Environmental Resource Management Division of the Watershed Protection Dept.

Chippindale, P. 2010. Population genetics, species boundaries, and conservation of the Jollyville Plateau salamander (Eurycea tonkawae). Interim Report to Texas Parks & Wildlife Department.

Specimen:

Element Occurrence Record

Scientific Name: Festuca versuta **Occurrence #:** 4 **Eo Id:** 8741

Common Name: Texas fescue **Track Status:** Track all extant and selected historical EOs

Identification Confirmed: **TX Protection Status:**

Global Rank: G3 **State Rank:** S3 **Federal Status:**

Location Information:

Directions

Survey Information:

First Observation: **Survey Date:** **Last Observation:**

Eo Type: **Eo Rank:** **Eo Rank Date:**

Observed Area:

Comments:

General Description:

Comments:

Protection Comments:

Management Comments:

Data:

EO Data:

Community Information:

Scientific Name:	Stratum:	Dominant:	Lifeform:	Composition Note:

Reference:

Citation:

Specimen:

Element Occurrence Record

Scientific Name: Festuca versuta **Occurrence #:** 29 **Eo Id:** 11124

Common Name: Texas fescue **Track Status:** Track all extant and selected historical EOs

Identification Confirmed: Y - Yes **TX Protection Status:**

Global Rank: G3 **State Rank:** S3 **Federal Status:**

Location Information:

Directions

ALONG EPHEMERAL TRIBUTARY OF WALNUT CREEK IN NE 1/4 OF BALCONES CITY PARK.

Survey Information:

First Observation: **Survey Date:** **Last Observation:** 1994-04-14

Eo Type: **Eo Rank:** **Eo Rank Date:**

Observed Area:

Comments:

General Description: IN MODERATELY MOIST HUMUS AND CLAY LOAM OVER LIMESTONE, IN SHADE OF TEXAS OAK, ASHE JUNIPER, CEDAR ELM, ETC. ON LOWER SLOPES ALONG EPHEMERAL TRIBUTARY OF WALNUT CREEK,NE 1/4 OF BALCONES CITY PARK.

Comments:

Protection Comments:

Management Comments:

Data:

EO Data: RARE

Community Information:

Scientific Name:	Stratum:	Dominant:	Lifeform:	Composition Note:

Reference:

Citation:

CARR, W.R. (13569-B). 1994. SPECIMEN #NONE TEX-LL

Specimen:

CARR, W.R. (13569-B). 1994. SPECIMEN # NONE TEX-LL (S94CAR01TXUS)

Element Occurrence Record

Scientific Name: Hexalectris nitida **Occurrence #:** 30 **Eo Id:** 2399

Common Name: Glass Mountains coral-root **Track Status:** Track all extant and selected historical EOs

Identification Confirmed: Y - Yes **TX Protection Status:**

Global Rank: G3 **State Rank:** S3 **Federal Status:**

Location Information:

Directions

WALNUT CREEK METROPOLITAN PARK; UPLAND SOUTH OF ENTRANCE ROAD FROM LAMAR BOULEVARD, EAST OF WELLS BRANCH

Survey Information:

First Observation: 1997-07-13 **Survey Date:** 1997-07-13 **Last Observation:** 1997-07-13

Eo Type: **Eo Rank:** **Eo Rank Date:**

Observed Area:

Comments:

General Description: FAIRLY LOW DIVERSITY ASHE JUNIPER WOODLAND ON +/- LEVEL UPLAND UNDERLAIN BY AUSTIN CHALK

Comments: CONTACT PAUL TURNER OF DRUID ENVIRONMENTAL FOR ADDITIONAL INFORMATION

Protection Comments:

Management Comments:

Data:

EO Data: 13 STEMS, PROBABLY REPRESENTING 7 PLANTS; 4-10 INCHES TALL; IN BUD, FLOWER AND/OR FRUIT; HEXALECTRIS SPICATA IN FRUIT IN AREA

Community Information:

Scientific Name:	Stratum:	Dominant:	Lifeform:	Composition Note:

Reference:

Citation:

CARR, W.R. 1997. FIELD SURVEY OF WALNUT CREEK PARK, 13 JULY 1997, WITH PAUL TURNER.

Specimen:

Element Occurrence Record

Scientific Name: Invertebrate Cave
Occurrence #: 8 **Eo Id:** 208
Common Name:
Track Status: Track all extant and selected historical EOs
Identification Confirmed: Y - Yes
TX Protection Status:
Global Rank: GNR **State Rank:** SNR
Federal Status:

Location Information:

Directions

BECK BRIDGE CAVE; WEST OF ROUND ROCK AND HIGHWAY 620, CA. 2.3 AIR MILES WEST-SOUTHWEST OF INTERSECTION OF HIGHWAY 620 AND IH-35

Survey Information:

First Observation: **Survey Date:** **Last Observation:** 1993
Eo Type: **Eo Rank:** **Eo Rank Date:**
Observed Area:

Comments:

General Description: CAVE
Comments:
Protection Comments:
Management Comments:

Data:

EO Data:

Community Information:

Scientific Name:	Stratum:	Dominant:	Lifeform:	Composition Note:

Reference:

Citation:

ELLIOTT, WILLIAM R. AND JAMES R. REDDELL. 1993. TABLE OF ENDANGERED CAVE INVERTEBRATES IN TRAVIS AND WILLIAMSON COUNTIES. JULY 12, 1993.

Specimen:

Element Occurrence Record

Scientific Name: Invertebrate Cave
Occurrence #: 9 **Eo Id:** 1937
Common Name:
Track Status: Track all extant and selected historical EOs
Identification Confirmed: Y - Yes
TX Protection Status:
Global Rank: GNR **State Rank:** SNR
Federal Status:

Location Information:

Directions

EASTER CAVE; WEST OF ROUND ROCK CA. 2.0 AIR MILES WEST OF IH-35 AND HIGHWAY 620 INTERSECTION

Survey Information:

First Observation: **Survey Date:** **Last Observation:** 1993
Eo Type: **Eo Rank:** **Eo Rank Date:**
Observed Area:

Comments:

General Description: CAVE

Comments:

Protection Comments:

Management Comments:

Data:

EO Data:

Community Information:

Scientific Name:	Stratum:	Dominant:	Lifeform:	Composition Note:

Reference:

Citation:

ELLIOTT, WILLIAM R. AND JAMES R. REDDELL. 1993. TABLE OF ENDANGERED CAVE INVERTEBRATES IN TRAVIS AND WILLIAMSON COUNTIES. JULY 12, 1993.

Specimen:

Element Occurrence Record

Scientific Name: Invertebrate Cave
Occurrence #: 10 **Eo Id:** 1938
Common Name:
Track Status: Track all extant and selected historical EOs
Identification Confirmed: Y - Yes
TX Protection Status:
Global Rank: GNR **State Rank:** SNR
Federal Status:

Location Information:

Directions

ELM CAVE; CA. 3.8 AIR MILES NORTHWEST OF HIGHWAY 620 AND IH-35 INTERSECTION

Survey Information:

First Observation: **Survey Date:** **Last Observation:** 1993
Eo Type: **Eo Rank:** **Eo Rank Date:**
Observed Area:

Comments:

General Description: CAVE

Comments:

Protection Comments:

Management Comments:

Data:

EO Data:

Community Information:

Scientific Name:	Stratum:	Dominant:	Lifeform:	Composition Note:

Reference:

Citation:

ELLIOTT, WILLIAM R. AND JAMES R. REDDELL. 1993. TABLE OF ENDANGERED CAVE INVERTEBRATES IN TRAVIS AND WILLIAMSON COUNTIES. JULY 12, 1993.

Specimen:

Element Occurrence Record

Scientific Name: Invertebrate Cave
Occurrence #: 11 **Eo Id:** 1252
Common Name:
Track Status: Track all extant and selected historical EOs
Identification Confirmed: Y - Yes
TX Protection Status:
Global Rank: GNR **State Rank:** SNR
Federal Status:

Location Information:

Directions

FENCE-LINE SINK; CA. 0.4 AIR MILE WEST OF INNER SPACE CAVERN

Survey Information:

First Observation: **Survey Date:** **Last Observation:** 1993
Eo Type: **Eo Rank:** **Eo Rank Date:**
Observed Area:

Comments:

General Description: CAVE/SINK

Comments:

Protection Comments:

Management Comments:

Data:

EO Data:

Community Information:

Scientific Name:	Stratum:	Dominant:	Lifeform:	Composition Note:

Reference:

Citation:

ELLIOTT, WILLIAM R. AND JAMES R. REDDELL. 1993. TABLE OF ENDANGERED CAVE INVERTEBRATES IN TRAVIS AND WILLIAMSON COUNTIES. JULY 12, 1993.

Specimen:

Element Occurrence Record

Scientific Name: Invertebrate Cave
Occurrence #: 12 **Eo Id:** 3586
Common Name:
Track Status: Track all extant and selected historical EOs
Identification Confirmed: Y - Yes
TX Protection Status:
Global Rank: GNR **State Rank:** SNR
Federal Status:

Location Information:

Directions

MCNEIL QUARRY CAVE; CA. 0.8 AIR MILE NORTH-NORTHEAST OF INTERSECTION AT MCNEIL COMMUNITY

Survey Information:

First Observation: **Survey Date:** **Last Observation:** 1993
Eo Type: **Eo Rank:** **Eo Rank Date:**
Observed Area:

Comments:

General Description: CAVE

Comments:

Protection Comments:

Management Comments:

Data:

EO Data:

Community Information:

Scientific Name:	Stratum:	Dominant:	Lifeform:	Composition Note:

Reference:

Citation:

ELLIOTT, WILLIAM R. AND JAMES R. REDDELL. 1993. TABLE OF ENDANGERED CAVE INVERTEBRATES IN TRAVIS AND WILLIAMSON COUNTIES. JULY 12, 1993.

Specimen:

Element Occurrence Record

Scientific Name: Micropterus treculii **Occurrence #:** 20 **Eo Id:** 7073

Common Name: Guadalupe Bass **Track Status:** Track all extant and selected historical EOs

Identification Confirmed: Y - Yes **TX Protection Status:**

Global Rank: G3 **State Rank:** S3 **Federal Status:**

Location Information:

Directions

These directions were not updated when Fishes of Texas specimen Source Features were aggregated into EOs . Original directions: Original directions: SAN GABRIEL RIVER IN AND AROUND GEORGETOWN, WHICH INCLUDES BERRY CREEK AND MANSKE BRANCH, BOTH DOWNSTREAM OF GEORGETOWN

Survey Information:

First Observation: 1830-01-01 **Survey Date:** 1995-03-31 **Last Observation:** 1995-03-31

Eo Type: **Eo Rank:** E **Eo Rank Date:** 1995-03-31

Observed Area:

Comments:

General Description: CLEAR, MEDIUM SIZED STREAM; LIMESTONE ROCK AND GRAVEL SUBSTRATE; RIFFLES AND POOLS

Comments: ENDEMIC TO SEVERAL RIVERS OF EASTERN EDWARDS PLATEAU; COMMON IN PREFERRED HABITAT

Protection Comments: HYBRIDIZES WITH MICROPTERUS PUNCTULATUS

Management Comments:

Data:

EO Data: 1 Jan 1830: 1 specimen was collected. 30 Mar 1961: 3 specimens were collected. 7 Oct 1972: 2 specimens were collected. 23 Apr 1976: 1 specimen was collected. Sep 1976: Specimens collected. 17 Sep 1977: At least 1 specimen was collected. 10 Dec 1977: 9 specimens were collected. 17 Jun 1994: 6 specimens were collected. 23 Jul 1994: 1 specimen was collected. 24 Jul 1994: 1 specimen was collected. 31 Mar 1995: 1 specimen was collected.

Community Information:

Scientific Name:	Stratum:	Dominant:	Lifeform:	Composition Note:

Reference:

Citation:

EDWARDS, ROBERT J. 1980. THE ECOLOGY AND GEOGRAPHIC VARIATION OF THE GUADALUPE BASS (MICROPTERUS TRECULI). PhD. DISSERTATION, ZOOLOGY DEPARTMENT, UT-AUSTIN.

LEE, DAVID S. ET AL. 1980. ATLAS OF NORTH AMERICAN FRESHWATER FISHES. N.C. STATE MUSEUM OF NAT. HIST., GREENSBORO, NC.

Fishes of Texas. 2015. Database download from the Fishes of Texas online database (http://www.fishesoftexas.org/home/) of SGCN species on 11 May 2015. University of Texas, Texas Natural History Collections, Excel spreadsheet.

Specimen:

Florida Museum of Natural History, University of Florida, Gainesville, FL; John D. McEachran, WFS 312 class (#unknown), Catalog # 29515, 17 Sep 1977, UF.

Scientific Collections, Southern Illinois University, Carbondale, IL; Wendell L. Minckley (#unknown), Catalog # 68753, 30 Mar 1961, SIUC.

Texas Cooperative Wildlife Collections, Texas A&M University, College Station, TX; A. Anderson (#unknown), Catalog # 10670.03, 17 Jun 1994, TCWC.

Texas Cooperative Wildlife Collections, Texas A&M University, College Station, TX; A. Anderson (#unknown), Catalog # 10670.04, 17 Jun 1994, TCWC.

Texas Cooperative Wildlife Collections, Texas A&M University, College Station, TX; A. Anderson (#unknown), Catalog # 10671.02, 17 Jun 1994, TCWC.

Texas Cooperative Wildlife Collections, Texas A&M University, College Station, TX; A. Anderson (#unknown), Catalog # 10672.03, 23 Jul 1994, TCWC.

Texas Cooperative Wildlife Collections, Texas A&M University, College Station, TX; A. Anderson (#unknown), Catalog # 10678.01, 24 Jul 1994, TCWC.

Texas Cooperative Wildlife Collections, Texas A&M University, College Station, TX; A. Anderson (#unknown), Catalog # 10695.05, 31 Mar 1995, TCWC.

Texas Cooperative Wildlife Collections, Texas A&M University, College Station, TX; R.D. Caldwell, R.M. Altaras (#unknown), Catalog # 4047.06, 7 Oct 1972, TCWC.

Texas Cooperative Wildlife Collections, Texas A&M University, College Station, TX; WFSC 312 class (#unknown), Catalog # 543.2, 23 Apr 1976, TCWC.

Texas Natural History Collections, University of Texas at Austin, Austin, TX; Robert John Edwards (#unknown), Catalog # 10221, 10 Dec 1977, TNHC.

Texas Natural History Collections, University of Texas at Austin, Austin, TX; unknown (#unknown), Catalog # 41129, 31 Dec 2008, TNHC.

Element Occurrence Record

Scientific Name: Myotis velifer
Occurrence #: 2 **Eo Id:** 3915
Common Name: cave myotis bat
Track Status: Track all extant and selected historical EOs
Identification Confirmed: Y - Yes
TX Protection Status:
Global Rank: G4G5 **State Rank:** S4
Federal Status:

Location Information:

Directions

MCNEIL BAT CAVE; CA. 0.5 AIR MILE SOUTHWEST OF INTERSECTION AT MCNEIL COMMUNITY

Survey Information:

First Observation: **Survey Date:** **Last Observation:** 196?
Eo Type: **Eo Rank:** **Eo Rank Date:**
Observed Area:

Comments:

General Description: CAVE

Comments:

Protection Comments:

Management Comments:

Data:

EO Data:

Community Information:

Scientific Name:	Stratum:	Dominant:	Lifeform:	Composition Note:

Reference:

Citation:

Elliott, W.R. and J.R. Reddell. 1989. The status and range of five endangered arthropods from caves in the Austin , Texas, region. Prepared for Texas Parks & Wildlife Dept. and Texas Nature Conservancy for the Austin Regional Habitat Conservation Plan, Austin, TX. 103 pp. 1 December 1989.

Texas Speleological Survey and Horizon Environmental Services , Inc. 2016. McNeal [McNeil] High School area karst features, July 2016.

Specimen:

Element Occurrence Record

Scientific Name: Onosmodium helleri **Occurrence #:** 3 **Eo Id:** 5655

Common Name: Heller's marbleseed **Track Status:** Track all extant and selected historical EOs

Identification Confirmed: Y - Yes **TX Protection Status:**

Global Rank: G3 **State Rank:** S3 **Federal Status:**

Location Information:

Directions

BULL CREEK (UPPER)

Survey Information:

First Observation: 1912-07 **Survey Date:** **Last Observation:** 1950-03-31

Eo Type: **Eo Rank:** **Eo Rank Date:**

Observed Area:

Comments:

General Description:

Comments:

Protection Comments:

Management Comments:

Data:

EO Data:

Community Information:

Scientific Name:	Stratum:	Dominant:	Lifeform:	Composition Note:

Reference:

Citation:

Specimen:

Southern Methodist University Herbarium. 1949. C.C. Albers #49283, Specimen # none SMU. 25 September 1949.

University of Texas at Austin Herbarium. 1912. M.S. Young (s.n.), Specimen # 120521 TEX. July 1912.

University of Texas at Austin Herbarium. 1950. B.C. Tharp #50-1, Specimen # 120526 TEX. 31 March 1950.

Element Occurrence Record

Scientific Name: Onosmodium helleri **Occurrence #:** 18 **Eo Id:** 6206

Common Name: Heller's marbleseed **Track Status:** Track all extant and selected historical EOs

Identification Confirmed: Y - Yes **TX Protection Status:**

Global Rank: G3 **State Rank:** S3 **Federal Status:**

Location Information:

Directions

BRANCH OF WALNUT CREEK OFF OLD DALLAS HIGHWAY, NOW IN PROPOSED WALNUT CREEK PARK

Survey Information:

First Observation: ? **Survey Date:** **Last Observation:**

Eo Type: **Eo Rank:** **Eo Rank Date:**

Observed Area:

Comments:

General Description:

Comments:

Protection Comments:

Management Comments:

Data:

EO Data: SEEDS COLLECTED

Community Information:

Scientific Name:	Stratum:	Dominant:	Lifeform:	Composition Note:

Reference:

Citation:

RARE PLANT STUDY CENTER, UNIVERSITY OF TEXAS AT AUSTIN. 1976-12-20. REPORT ON ONOSMODIUM HELLERI.

Specimen:

Element Occurrence Record

Scientific Name: Prunus minutiflora
Occurrence #: 66 **Eo Id:** 10554
Common Name: Texas almond
Track Status: Track all extant and selected historical EOs
Identification Confirmed:
TX Protection Status:
Global Rank: G3G4 **State Rank:** S3S4
Federal Status:

Location Information:

Directions

Ed Walsh Place, just W of Round Rock.

Survey Information:

First Observation: **Survey Date:** **Last Observation:** 1951-06-19
Eo Type: **Eo Rank:** **Eo Rank Date:**
Observed Area:

Comments:

General Description:

Comments: Complete specimen citation: Ed Walsh Place, just W of Round Rock, 19 Jun 1951, E. Walsh s.n. (BRIT/SMU, TEX-LL).

Protection Comments:

Management Comments:

Data:

EO Data:

Community Information:

Scientific Name:	Stratum:	Dominant:	Lifeform:	Composition Note:

Reference:

Citation:

Specimen:

E. Walsh s.n. (BRIT/SMU, TEX-LL).

Element Occurrence Record

Scientific Name: Prunus minutiflora **Occurrence #:** 80 **Eo Id:** 10725

Common Name: Texas almond **Track Status:** Track all extant and selected historical EOs

Identification Confirmed: Y - Yes **TX Protection Status:**

Global Rank: G3G4 **State Rank:** S3S4 **Federal Status:**

Location Information:

Directions

E edge of Memorial Hill Park Cemetery, E side of IH 35, N side of Dessau Rd.

Survey Information:

First Observation: 1950-03-09 **Survey Date:** 1996-03-06 **Last Observation:** 1996-03-06

Eo Type: **Eo Rank:** C **Eo Rank Date:**

Observed Area:

Comments:

General Description:

Comments: Complete label citation: Hundreds of shrubs, most past flower; in shallow gravelly loam Typic Ustorthents (Eddy series) over Austin Chalk, in little bluestem-tall grama grassland with scattered shrubs including Ashe juniper; E edge of Memorial Hill Park Cemetery, E side of IH 35, N side of Dessau Rd., Pflugerville West Quad, 30o25'30"N, 97o40'05"W; woody associates include Berberis trifoliolata, Bumelia lanuginosa, Ceanothus herbaceus, Celtis laevigata, Dalea frutescens, Forestiera pubescens, Juniperus ashei, Lantana sp., Lonicera japonica, Opuntia lindheimeri, Yucca rupicola, Zanthoxylum hirsutum; 6 Mar 1996, W. R. Carr and P. Turner 15103 (TEX-LL).

Protection Comments:

Management Comments:

Data:

EO Data: Hundreds of shrubs observed on 6 Mar 1996, most already past flowering.

Community Information:

Scientific Name:	Stratum:	Dominant:	Lifeform:	Composition Note:

Reference:

Citation:

Specimen:

B. C. Tharp 50-19 (TEX-LL); B. C. Tharp and Nickerson 50-20a and 50-20b (TAES, TEX-LL); B. C. Tharp 50-21 (TAES, TEX-LL); B. C. Tharp and York 50-22 (BRIT/SMU, TAES).

W. R. Carr and P. Turner 15103 (TEX-LL).

Element Occurrence Record

Scientific Name: Prunus minutiflora **Occurrence #:** 84 **Eo Id:** 10728

Common Name: Texas almond **Track Status:** Track all extant and selected historical EOs

Identification Confirmed: Y - Yes **TX Protection Status:**

Global Rank: G3G4 **State Rank:** S3S4 **Federal Status:**

Location Information:

Directions

Mo-Kan Prairie site; ca. 200 ft. S of Co. Rd. 168 (Gattis School Rd.), 1.0 roadmiles W of Co. Rd. 122 (Red Bud Rd.).

Survey Information:

First Observation: **Survey Date:** **Last Observation:** 1993-03-11

Eo Type: **Eo Rank:** **Eo Rank Date:**

Observed Area:

Comments:

General Description:

Comments: Complete specimen citation: Occasional small shrub in forb dominated "prairie" remnant, in shallow silty clay loam (Castephen silty clay, Entic Haplustolls) over Austin Chalk, ca. 200 ft. S of Co. Rd. 168 (Gattis School Rd.), 1.0 roadmiles W of Co. Rd. 122 (Red Bud Rd.), Pflugerville West Quad, 302943N, 973747W, 11 Mar 1993, W. R. Carr, J. Gee and P. Gee 10312 (TEX-LL).

Protection Comments:

Management Comments:

Data:

EO Data: Occasional small shrub.

Community Information:

Scientific Name:	Stratum:	Dominant:	Lifeform:	Composition Note:

Reference:

Citation:

Specimen:

W. R. Carr, J. Gee and P. Gee 10312 (TEX-LL).

Element Occurrence Record

Scientific Name: Rookery
Occurrence #: 529 **Eo Id:** 3207
Common Name:
Track Status: Track all extant and selected historical EOs
Identification Confirmed: Y - Yes
TX Protection Status:
Global Rank: G5 **State Rank:** SNR
Federal Status:

Location Information:

Directions
ROUND ROCK

Survey Information:

First Observation: 1989 **Survey Date:** **Last Observation:** 1990
Eo Type: **Eo Rank:** **Eo Rank Date:**
Observed Area:

Comments:

General Description:

Comments: COLONY NUMBER 586-004

Protection Comments:

Management Comments:

Data:

EO Data: NESTING COLONY OF THE GREAT EGRET, SNOWY EGRET, LITTLE BLUE HERON, CATTLE EGRET

Community Information:

Scientific Name:	Stratum:	Dominant:	Lifeform:	Composition Note:

Reference:

Citation:

Martin, Catrina. 1991. Texas Colonial Waterbird Census Summary - 1990. Compiled for Texas Parks & Wildlife Dept. and Texas Colonial Waterbird Society. 13 March 1991.

TEXAS COLONIAL WATERBIRD SOCIETY AND TEXAS PARKS & WILDLIFE DEPARTMENT. 1986-1989. TEXAS COLONIAL WATERBIRD CENSUS SUMMARY. SPECIAL ADMINISTRATIVE REPORTS.

Specimen:

Element Occurrence Record

Scientific Name: Schizachyrium scoparium - Sorghastrum nutans - Andropogon gerardii - Bifora americana Vertisol Grassland
Occurrence #: 84 **Eo Id:** 11974
Common Name: Vertisol Blackland Prairie
Track Status: Track all extant and selected historical EOs
Identification Confirmed: Y - Yes
TX Protection Status:
Global Rank: G1G2 **State Rank:** SNR
Federal Status:

Location Information:

Directions

The site is located on the eastern edge of Wells Branch and on the west side of Interstate Highway 35. The directions were created by database staff.

Survey Information:

First Observation: 2005-11-01 **Survey Date:** 2005-11-01 **Last Observation:** 2005-11-01
Eo Type: **Eo Rank:** E **Eo Rank Date:** 2005-11-01
Observed Area:

Comments:

General Description: See the Composition Tab for other species within the area.

Comments:

Protection Comments:

Management Comments:

Data:

EO Data: 1 November 2005: One plant community of 1 percent good quality grass species; Forb species are present.

Community Information:

Scientific Name:	Stratum:	Dominant:	Lifeform:	Composition Note:
Andropogon gerardii	Herb (field)	Y	Graminoid	SFID: 26027
Bifora americana	Herb (field)	Y	Forb	SFID: 26027
Helianthus maximiliani	Herb (field)	N	Forb	SFID: 26027
Liatris mucronata	Herb (field)	N	Forb	SFID: 26027
Schizachyrium scoparium	Herb (field)	Y	Graminoid	SFID: 26027
Sorghastrum nutans	Herb (field)	Y	Graminoid	SFID: 26027

Reference:

Citation:

Native Prairies Association of Texas. 2011. Tallgrass prairie survey project that includes shapefiles, excel files, documents, images, and protocol for multiple counties in Texas (2000-2013).

Specimen:

Element Occurrence Record

Scientific Name: Schizachyrium scoparium - Sorghastrum nutans - Andropogon gerardii - Bifora americana Vertisol Grassland
Occurrence #: 85 **Eo Id:** 11975
Common Name: Vertisol Blackland Prairie
Track Status: Track all extant and selected historical EOs
Identification Confirmed: Y - Yes
TX Protection Status:
Global Rank: G1G2 **State Rank:** SNR
Federal Status:

Location Information:

Directions

The site is located approximately 2.3 air miles southeast of Wells Branch, and 2.0 air miles west-southwest of Pflugerville, on both sides of East Wells Branch Parkway. The directions were created by database staff.

Survey Information:

First Observation: 2005-11-01 **Survey Date:** 2005-11-01 **Last Observation:** 2005-11-01
Eo Type: **Eo Rank:** E **Eo Rank Date:** 2005-11-01
Observed Area:

Comments:

General Description: See the Composition Tab for other species within the area.

Comments:

Protection Comments:

Management Comments:

Data:

EO Data: 1 November 2005: One plant community of 15 percent fair quality grass species; Forb species are excellent quality; Exotic species are present; Woody cover is dominated by 15 percent.

Community Information:

Element Occurrence Record

Scientific Name:	Stratum:	Dominant:	Lifeform:	Composition Note:
Andropogon gerardii	Herb (field)	Y	Graminoid	SFID: 26025
Bifora americana	Herb (field)	Y	Forb	SFID: 26025
Ceanothus americanus	Herb (field)	N	Forb	SFID: 26025
Engelmannia pinnatifida	Herb (field)	N	Forb	SFID: 26025
Eriochloa sericea	Herb (field)	N	Forb	SFID: 26025
Prunus minutiflora	Tree (canopy & subcanopy)	N	Broad-leaved deciduous tree	SFID: 26025
Schizachyrium scoparium	Herb (field)	Y	Graminoid	SFID: 26025
Sorghastrum nutans	Herb (field)	Y	Graminoid	SFID: 26025

Reference:

Citation:

Native Prairies Association of Texas. 2011. Tallgrass prairie survey project that includes shapefiles, excel files, documents, images, and protocol for multiple counties in Texas (2000-2013).

Specimen:

Element Occurrence Record

Scientific Name: Schizachyrium scoparium - Sorghastrum nutans - Andropogon gerardii - Bifora americana Vertisol Grassland
Occurrence #: 86 **Eo Id:** 11976
Common Name: Vertisol Blackland Prairie
Track Status: Track all extant and selected historical EOs
Identification Confirmed: Y - Yes
TX Protection Status:
Global Rank: G1G2 **State Rank:** SNR
Federal Status:

Location Information:

Directions

The site is located approximately 1.6 air mile south-southeast of Wells Branch, and 3.0 air miles west-southwest if Pflugerville, on the west side of The Lakes Boulevard and to the east of Memorial Hill Park Cemetery. The directions were created by database staff.

Survey Information:

First Observation: 2005-11-01 **Survey Date:** 2005-11-01 **Last Observation:** 2005-11-01
Eo Type: **Eo Rank:** E **Eo Rank Date:** 2005-11-01
Observed Area:

Comments:

General Description: See the Composition Tab for other species within the area.

Comments:

Protection Comments:

Management Comments:

Data:

EO Data: 1 November 2005: One plant community of 5 percent fair quality grass species; Forb species are good quality; Woody cover is present.

Community Information:

Scientific Name:	Stratum:	Dominant:	Lifeform:	Composition Note:
Andropogon gerardii	Herb (field)	Y	Graminoid	SFID: 26026
Bifora americana	Herb (field)	Y	Forb	SFID: 26026
Liatris mucronata	Herb (field)	N	Forb	SFID: 26026
Prunus minutiflora	Tree (canopy & subcanopy)	N	Broad-leaved deciduous tree	SFID: 26026
Schizachyrium scoparium	Herb (field)	Y	Graminoid	SFID: 26026
Sorghastrum nutans	Herb (field)	Y	Graminoid	SFID: 26026

Reference:

Citation:

Native Prairies Association of Texas. 2011. Tallgrass prairie survey project that includes shapefiles, excel files, documents, images, and protocol for multiple counties in Texas (2000-2013).

Specimen:

Element Occurrence Record

Scientific Name: Schizachyrium scoparium - Sorghastrum nutans - Andropogon gerardii - Bifora americana Vertisol Grassland
Occurrence #: 87 **Eo Id:** 11977
Common Name: Vertisol Blackland Prairie
Track Status: Track all extant and selected historical EOs
Identification Confirmed: Y - Yes
TX Protection Status:
Global Rank: G1G2 **State Rank:** SNR
Federal Status:

Location Information:

Directions

The site is located approximately 9.0 air miles west-northwest of Elgin, and 4.8 air miles north-northeast of Manor, on the east side of FM 973. The directions were created by database staff.

Survey Information:

First Observation: 2005-12-01 **Survey Date:** 2005-12-01 **Last Observation:** 2005-12-01
Eo Type: **Eo Rank:** E **Eo Rank Date:** 2005-12-01
Observed Area:

Comments:

General Description: See the Composition Tab for other species within the area.

Comments:

Protection Comments:

Management Comments:

Data:

EO Data: 1 December 2005: One plant community.

Community Information:

Scientific Name:	Stratum:	Dominant:	Lifeform:	Composition Note:
Andropogon gerardii	Herb (field)	Y	Graminoid	SFID: 26033
Bifora americana	Herb (field)	Y	Forb	SFID: 26033
Schizachyrium scoparium	Herb (field)	Y	Graminoid	SFID: 26033
Sorghastrum nutans	Herb (field)	Y	Graminoid	SFID: 26033

Reference:

Citation:

Native Prairies Association of Texas. 2011. Tallgrass prairie survey project that includes shapefiles, excel files, documents, images, and protocol for multiple counties in Texas (2000-2013).

Specimen:

Element Occurrence Record

Scientific Name: Schizachyrium scoparium - Sorghastrum nutans - Andropogon gerardii - Bifora americana Vertisol Grassland
Occurrence #: 101 **Eo Id:** 11991
Common Name: Vertisol Blackland Prairie
Track Status: Track all extant and selected historical EOs
Identification Confirmed: Y - Yes
TX Protection Status:
Global Rank: G1G2 **State Rank:** SNR
Federal Status:

Location Information:

Directions

This site is located approximately 4.0 air miles southeast of Georgetown, and 6.0 air miles northwest of Hutto, on the east side of County Road 110, and south of Matthew Lane. The directions were created by database staff.

Survey Information:

First Observation: 2005-11-01 **Survey Date:** 2005-11-01 **Last Observation:** 2005-11-01
Eo Type: **Eo Rank:** E **Eo Rank Date:** 2005-11-01
Observed Area:

Comments:

General Description: See the Composition Tab for other species within the area.

Comments:

Protection Comments:

Management Comments:

Data:

EO Data: 1 November 2005: One plant community of excellent quality grass species; Forb species are excellent quality.

Community Information:

Scientific Name:	Stratum:	Dominant:	Lifeform:	Composition Note:
Andropogon gerardii	Herb (field)	Y	Graminoid	SFID: 26017
Bifora americana	Herb (field)	Y	Forb	SFID: 26017
Schizachyrium scoparium	Herb (field)	Y	Graminoid	SFID: 26017
Sorghastrum nutans	Herb (field)	Y	Graminoid	SFID: 26017

Reference:

Citation:

Native Prairies Association of Texas. 2011. Tallgrass prairie survey project that includes shapefiles, excel files, documents, images, and protocol for multiple counties in Texas (2000-2013).

Specimen:

Element Occurrence Record

Scientific Name: Schizachyrium scoparium - Sorghastrum nutans - Andropogon gerardii - Bifora americana Vertisol Grassland
Occurrence #: 102 **Eo Id:** 11992
Common Name: Vertisol Blackland Prairie
Track Status: Track all extant and selected historical EOs
Identification Confirmed: Y - Yes
TX Protection Status:
Global Rank: G1G2 **State Rank:** SNR
Federal Status:

Location Information:

Directions

This site is located approximately 4.5 air miles east-northeast of Brushy Creek, and 2.0 air miles directly north of Round Rock, on the south side of East Old Settlers Boulevard. The directions were created by database staff.

Survey Information:

First Observation: 2005-05-01 **Survey Date:** 2005-05-01 **Last Observation:** 2005-05-01
Eo Type: **Eo Rank:** E **Eo Rank Date:** 2005-05-01
Observed Area:

Comments:

General Description: See the Composition Tab for other species within the area.

Comments:

Protection Comments:

Management Comments:

Data:

EO Data: 1 May 2005: One plant community of poor quality grass species; Forb species are of excellent quality; Exotic species are present; Woody cover is present.

Community Information:

Element Occurrence Record

Scientific Name:	Stratum:	Dominant:	Lifeform:	Composition Note:
Andropogon gerardii	Herb (field)	Y	Graminoid	SFID: 26016
Bifora americana	Herb (field)	Y	Forb	SFID: 26016
Ceanothus americanus	Herb (field)	N	Forb	SFID: 26016
Rhus aromatica	Shrub/sapling (tall & short)	N	Broad-leaved deciduous shrub	SFID: 26016
Schizachyrium scoparium	Herb (field)	Y	Graminoid	SFID: 26016
Sorghastrum nutans	Herb (field)	Y	Graminoid	SFID: 26016
Yucca arkansana	Shrub/sapling (tall & short)	N	Needle-leaved shrub	SFID: 26016

Reference:

Citation:

Native Prairies Association of Texas. 2011. Tallgrass prairie survey project that includes shapefiles, excel files, documents, images, and protocol for multiple counties in Texas (2000-2013).

Specimen:

Element Occurrence Record

Scientific Name: Schizachyrium scoparium - Sorghastrum nutans - Andropogon gerardii - Bifora americana Vertisol Grassland
Occurrence #: 103 **Eo Id:** 11993
Common Name: Vertisol Blackland Prairie
Track Status: Track all extant and selected historical EOs
Identification Confirmed: Y - Yes
TX Protection Status:
Global Rank: G1G2 **State Rank:** SNR
Federal Status:

Location Information:

Directions

This site is located approximately 3.7 air miles almost directly north of Pflugerville, and 2.7 air miles southeast of Round Rock, on the north side of Texas State Highway 45 Toll/FM 620. The directions were created by database staff.

Survey Information:

First Observation: 2005-11-01 **Survey Date:** 2005-11-01 **Last Observation:** 2005-11-01
Eo Type: **Eo Rank:** E **Eo Rank Date:** 2005-11-01
Observed Area:

Comments:

General Description: See the Composition Tab for other species within the area.

Comments:

Protection Comments:

Management Comments:

Data:

EO Data: 1 November 2005: One plant community that is a degraded site; Forb species are present; Woody cover is present.

Community Information:

Scientific Name:	Stratum:	Dominant:	Lifeform:	Composition Note:
Andropogon gerardii	Herb (field)	Y	Graminoid	SFID: 26015
Bifora americana	Herb (field)	Y	Forb	SFID: 26015
Rhus aromatica	Shrub/sapling (tall & short)	N	Broad-leaved deciduous shrub	SFID: 26015
Schizachyrium scoparium	Herb (field)	Y	Graminoid	SFID: 26015
Sorghastrum nutans	Herb (field)	Y	Graminoid	SFID: 26015

Reference:

Citation:

Native Prairies Association of Texas. 2011. Tallgrass prairie survey project that includes shapefiles, excel files, documents, images, and protocol for multiple counties in Texas (2000-2013).

Specimen:

Element Occurrence Record

Scientific Name: Schizachyrium scoparium - Sorghastrum nutans - Andropogon gerardii - Bifora americana Vertisol Grassland
Occurrence #: 104 **Eo Id:** 11994
Common Name: Vertisol Blackland Prairie
Track Status: Track all extant and selected historical EOs
Identification Confirmed: Y - Yes
TX Protection Status:
Global Rank: G1G2 **State Rank:** SNR
Federal Status:

Location Information:

Directions

These sites are located approximately 2.5 air miles northeast of Jollyville, and 2.7 air miles directly south of Brushy Creek, on the south side of Texas State Highway 45 Toll/FM 620. The directions were created by database staff. The directions are generalized as this record consists of multiple observations.

Survey Information:

First Observation: 2005-11-01 **Survey Date:** 2005-11-01 **Last Observation:** 2005-11-01
Eo Type: **Eo Rank:** E **Eo Rank Date:** 2005-11-01
Observed Area:

Comments:

General Description: 1 November 2005: There are creeks and stock ponds on one site (SFID: 26014); See the Composition Tab for other species within the area.

Comments:

Protection Comments:

Management Comments:

Data:

EO Data: 1 November 2005: 26024 -One plant community (SFID: 26024) of poor quality, and one plant community (SFID: 26014) of 70 percent good quality grass species; Forb species are good quality at one site (SFID: 26024), and absent at one site (SFID: 26014).

Community Information:

Element Occurrence Record

Scientific Name:	Stratum:	Dominant:	Lifeform:	Composition Note:
Andropogon gerardii	Herb (field)	Y	Graminoid	SFID: 26014, 26024
Andropogon glomeratus	Herb (field)	N	Graminoid	SFID: 26014, 26024
Bifora americana	Herb (field)	Y	Forb	SFID: 26014, 26024
Ipomopsis rubra	Herb (field)	N	Forb	SFID: 26014, 26024
Nemastylis geminiflora	Herb (field)	N	Forb	SFID: 26014, 26024
Salvia engelmannii	Herb (field)	N	Forb	SFID: 26024
Schizachyrium scoparium	Herb (field)	Y	Graminoid	SFID: 26014, 26024
Sorghastrum nutans	Herb (field)	Y	Graminoid	SFID: 26014, 26024
Tripsacum dactyloides	Herb (field)	N	Graminoid	SFID: 26014

Reference:

Citation:

Native Prairies Association of Texas. 2011. Tallgrass prairie survey project that includes shapefiles, excel files, documents, images, and protocol for multiple counties in Texas (2000-2013).

Specimen:

Element Occurrence Record

Scientific Name: Schizachyrium scoparium-sorghastrum nutans series
Occurrence #: 74 **Eo Id:** 3598
Common Name: Little Bluestem-indiangrass Series
Track Status: Track all extant and selected historical EOs
Identification Confirmed: Y - Yes
TX Protection Status:
Global Rank: G2 **State Rank:** S2
Federal Status:

Location Information:

Directions

SOUTH SIDE OF GADDIS SCHOOL ROAD, ON EAST SIDE OF OLD M-K-T RAILROAD GRADE ON EAST SIDE OF DYER BRANCH CULVERT, 1.0-1.2 MILES WEST OF COUNTY ROAD 122

Survey Information:

First Observation:
Survey Date: 1989-03-11
Last Observation: 1989
Eo Type:
Eo Rank: B
Eo Rank Date: 1989-03-11
Observed Area:

Comments:

General Description: SUPPOSEDLY UNPLOWED PRAIRIE REMNANT, MOSTLY LITTLE BLUESTEM, SIDEOATS GRAMA, WITH NUMEROUS FORBS ON SHALLOW SOILS OVER AUSTIN CHALK

Comments: LEA STONE, JOHN GEE, AND MARGARET CAMPBELL HAVE STUDIED THIS SITE; THEY CALL IT MOKAN PRAIRIE

Protection Comments:

Management Comments:

Data:

EO Data: SEE DATA COLLECTED BY JOHN GEE AND MARGARET CAMPBELL (IN GMF)

Community Information:

Scientific Name:	Stratum:	Dominant:	Lifeform:	Composition Note:

Reference:

Citation:

GEE, J.P. AND M.C. CAMPBELL. 1990. MOKAN PRAIRIE SURVEY. NATURE PRESERVES SYSTEM, PARKS & RECREATION DEPT., AUSTIN. 11 P.

Specimen:

Element Occurrence Record

Scientific Name: Texamaurops reddelli **Occurrence #:** 5 **Eo Id:** 10884

Common Name: Kretschmarr Cave Mold Beetle **Track Status:** Track all extant and selected historical EOs

Identification Confirmed: Y - Yes **TX Protection Status:**

Global Rank: G1G2 **State Rank:** S1 **Federal Status:** LE

Location Information:

Directions

OFF CAMPUS CAVE, SOUTHWEST OF GEORGETOWN, WEST OF IH-35 AND SOUTH OF HIGHWAY 2243

Survey Information:

First Observation: **Survey Date:** **Last Observation:** 1989-04-08

Eo Type: **Eo Rank:** **Eo Rank Date:**

Observed Area:

Comments:

General Description: ENTRANCE TO CAVE IS A SINKHOLE

Comments: SEE SOURCE FOR FAUNA LIST AND UTM COORDINATES

Protection Comments: FENCE ENTRANCE

Management Comments:

Data:

EO Data:

Community Information:

Scientific Name:	Stratum:	Dominant:	Lifeform:	Composition Note:

Reference:

Citation:

Elliott, W.R. and J.R. Reddell. 1989. The status and range of five endangered arthropods from caves in the Austin , Texas, region. Prepared for Texas Parks & Wildlife Dept. and Texas Nature Conservancy for the Austin Regional Habitat Conservation Plan, Austin, TX. 103 pp. 1 December 1989.

Specimen:

Element Occurrence Record

Scientific Name: Texella reddelli **Occurrence #:** 3 **Eo Id:** 10902

Common Name: Reddell harvestman **Track Status:** Track all extant and selected historical EOs

Identification Confirmed: Y - Yes **TX Protection Status:**

Global Rank: G2G3 **State Rank:** S2 **Federal Status:** LE

Location Information:

Directions

BONE CAVE, WILLIAMSON COUNTY

Survey Information:

First Observation: 1965 **Survey Date:** 1989-06-04 **Last Observation:** 1989

Eo Type: **Eo Rank:** **Eo Rank Date:**

Observed Area:

Comments:

General Description: A SMALL LIMESTONE CAVE

Comments: ISOLATION, SPECIATION AND HABITAT SPECIALIZATION RESULT IN HIGH ENDEMISM IN THESE ORGANISMS

Protection Comments:

Management Comments: PROTECT CAVE ENVIRONMENT

Data:

EO Data: A BLIND, CAVE ADAPTED HARVESTMAN OF SMALL SIZE; IT IS KNOWN FROM ONLY SIX CAVES IN A SMALL REGION NEAR AUSTIN; THE CAVE FAUNA OF THIS AREA IS ONE OF THE BEST KNOWN IN THE COUNTRY

Community Information:

Scientific Name:	Stratum:	Dominant:	Lifeform:	Composition Note:

Reference:

Citation:

Elliott, W.R. and J.R. Reddell. 1989. The status and range of five endangered arthropods from caves in the Austin , Texas, region. Prepared for Texas Parks & Wildlife Dept. and Texas Nature Conservancy for the Austin Regional Habitat Conservation Plan, Austin, TX. 103 pp. 1 December 1989.

HARTIGAN, PATRICK. 85-02-08. LETTER TO USF& WS REGARDING CAVE FAUNA.

REDDELL, JAMES R. CURATOR OF INVERTEBRATES TEXAS MEMORIAL MUSEUM UNIVERSITY OF TEXAS, AUSTIN, TX PH-512/471-1075

ELLIOTT, WILLIAM (BILL), PH.D. 12102 GRIMSLEY DRIVE AUSTIN, TEXAS 78759 PH-512/458-7410

Specimen:

Element Occurrence Record

Scientific Name: Texella reyesi **Occurrence #:** 8 **Eo Id:** 1801

Common Name: Bone Cave harvestman **Track Status:** Track all extant and selected historical EOs

Identification Confirmed: Y - Yes **TX Protection Status:**

Global Rank: G2G3 **State Rank:** S2 **Federal Status:** LE

Location Information:

Directions

BEER BOTTLE CAVE; CA. 1.1 AIR MILES SOUTH OF INTERSECTION AT MCNEIL COMMUNITY

Survey Information:

First Observation: **Survey Date:** **Last Observation:** 1993

Eo Type: **Eo Rank:** **Eo Rank Date:**

Observed Area:

Comments:

General Description: CAVE

Comments:

Protection Comments:

Management Comments:

Data:

EO Data:

Community Information:

Scientific Name:	Stratum:	Dominant:	Lifeform:	Composition Note:

Reference:

Citation:

ELLIOTT, WILLIAM R. AND JAMES R. REDDELL. 1993. TABLE OF ENDANGERED CAVE INVERTEBRATES IN TRAVIS AND WILLIAMSON COUNTIES. JULY 12, 1993.

Specimen:

Element Occurrence Record

Scientific Name: Texella reyesi **Occurrence #:** 9 **Eo Id:** 7846

Common Name: Bone Cave harvestman **Track Status:** Track all extant and selected historical EOs

Identification Confirmed: Y - Yes **TX Protection Status:**

Global Rank: G2G3 **State Rank:** S2 **Federal Status:** LE

Location Information:

Directions

COLD CAVE; CA. 1.7 AIR MILES SOUTH OF INTERSECTION AT MCNEIL COMMUNITY

Survey Information:

First Observation: **Survey Date:** **Last Observation:** 1993

Eo Type: **Eo Rank:** **Eo Rank Date:**

Observed Area:

Comments:

General Description: CAVE

Comments:

Protection Comments:

Management Comments:

Data:

EO Data:

Community Information:

Scientific Name:	Stratum:	Dominant:	Lifeform:	Composition Note:

Reference:

Citation:

ELLIOTT, WILLIAM R. AND JAMES R. REDDELL. 1993. TABLE OF ENDANGERED CAVE INVERTEBRATES IN TRAVIS AND WILLIAMSON COUNTIES. JULY 12, 1993.

Specimen:

Element Occurrence Record

Scientific Name: Texella reyesi **Occurrence #:** 10 **Eo Id:** 7845

Common Name: Bone Cave harvestman **Track Status:** Track all extant and selected historical EOs

Identification Confirmed: Y - Yes **TX Protection Status:**

Global Rank: G2G3 **State Rank:** S2 **Federal Status:** LE

Location Information:

Directions

FOSSIL CAVE; IN SCHROETER PARK

Survey Information:

First Observation: **Survey Date:** **Last Observation:** 1993

Eo Type: **Eo Rank:** **Eo Rank Date:**

Observed Area:

Comments:

General Description: CAVE

Comments:

Protection Comments:

Management Comments:

Data:

EO Data:

Community Information:

Scientific Name:	Stratum:	Dominant:	Lifeform:	Composition Note:

Reference:

Citation:

ELLIOTT, WILLIAM R. AND JAMES R. REDDELL. 1993. TABLE OF ENDANGERED CAVE INVERTEBRATES IN TRAVIS AND WILLIAMSON COUNTIES. JULY 12, 1993.

Specimen:

Element Occurrence Record

Scientific Name: Texella reyesi **Occurrence #:** 11 **Eo Id:** 4824

Common Name: Bone Cave harvestman **Track Status:** Track all extant and selected historical EOs

Identification Confirmed: Y - Yes **TX Protection Status:**

Global Rank: G2G3 **State Rank:** S2 **Federal Status:** LE

Location Information:

Directions

FOSSIL GARDEN CAVE; JUST EAST OF PARMER LANE CA. 0.4 MILE NORTH OF MCNEIL DRIVE

Survey Information:

First Observation: **Survey Date:** **Last Observation:** 1993

Eo Type: **Eo Rank:** **Eo Rank Date:**

Observed Area:

Comments:

General Description: CAVE

Comments:

Protection Comments:

Management Comments:

Data:

EO Data:

Community Information:

Scientific Name:	Stratum:	Dominant:	Lifeform:	Composition Note:

Reference:

Citation:

ELLIOTT, WILLIAM R. AND JAMES R. REDDELL. 1993. TABLE OF ENDANGERED CAVE INVERTEBRATES IN TRAVIS AND WILLIAMSON COUNTIES. JULY 12, 1993.

Specimen:

Element Occurrence Record

Scientific Name: Texella reyesi **Occurrence #:** 12 **Eo Id:** 3710

Common Name: Bone Cave harvestman **Track Status:** Track all extant and selected historical EOs

Identification Confirmed: Y - Yes **TX Protection Status:**

Global Rank: G2G3 **State Rank:** S2 **Federal Status:** LE

Location Information:

Directions

HOLE-IN-THE-ROAD; ON NORTHEAST SIDE OF PARMER LANE CA. 1.3 MILES SOUTHEAST OF MCNEIL DRIVE

Survey Information:

First Observation: **Survey Date:** **Last Observation:** 1993

Eo Type: **Eo Rank:** **Eo Rank Date:**

Observed Area:

Comments:

General Description: CAVE

Comments:

Protection Comments:

Management Comments:

Data:

EO Data:

Community Information:

Scientific Name:	Stratum:	Dominant:	Lifeform:	Composition Note:

Reference:

Citation:

ELLIOTT, WILLIAM R. AND JAMES R. REDDELL. 1993. TABLE OF ENDANGERED CAVE INVERTEBRATES IN TRAVIS AND WILLIAMSON COUNTIES. JULY 12, 1993.

Specimen:

Element Occurrence Record

Scientific Name: Texella reyesi **Occurrence #:** 13 **Eo Id:** 4696

Common Name: Bone Cave harvestman **Track Status:** Track all extant and selected historical EOs

Identification Confirmed: Y - Yes **TX Protection Status:**

Global Rank: G2G3 **State Rank:** S2 **Federal Status:** LE

Location Information:

Directions

MCNEIL BAT CAVE; CA. 0.5 AIR MILE SOUTHWEST OF INTERSECTION AT MCNEIL COMMUNITY

Survey Information:

First Observation: **Survey Date:** **Last Observation:** 1993

Eo Type: **Eo Rank:** **Eo Rank Date:**

Observed Area:

Comments:

General Description: CAVE

Comments:

Protection Comments:

Management Comments:

Data:

EO Data:

Community Information:

Scientific Name:	Stratum:	Dominant:	Lifeform:	Composition Note:

Reference:

Citation:

ELLIOTT, WILLIAM R. AND JAMES R. REDDELL. 1993. TABLE OF ENDANGERED CAVE INVERTEBRATES IN TRAVIS AND WILLIAMSON COUNTIES. JULY 12, 1993.

Texas Speleological Survey and Horizon Environmental Services, Inc. 2016. McNeal [McNeil] High School area karst features, July 2016.

Specimen:

Element Occurrence Record

Scientific Name: Texella reyesi **Occurrence #:** 14 **Eo Id:** 739

Common Name: Bone Cave harvestman **Track Status:** Track all extant and selected historical EOs

Identification Confirmed: Y - Yes **TX Protection Status:**

Global Rank: G2G3 **State Rank:** S2 **Federal Status:** LE

Location Information:

Directions

NO RENT CAVE; ON NORTH SIDE OF MCNEIL DRIVE CA. 0.4 MILE EAST OF PARMER LANE

Survey Information:

First Observation: **Survey Date:** **Last Observation:** 1993

Eo Type: **Eo Rank:** **Eo Rank Date:**

Observed Area:

Comments:

General Description: CAVE

Comments:

Protection Comments:

Management Comments:

Data:

EO Data:

Community Information:

Scientific Name:	Stratum:	Dominant:	Lifeform:	Composition Note:

Reference:

Citation:

ELLIOTT, WILLIAM R. AND JAMES R. REDDELL. 1993. TABLE OF ENDANGERED CAVE INVERTEBRATES IN TRAVIS AND WILLIAMSON COUNTIES. JULY 12, 1993.

Texas Speleological Survey and Horizon Environmental Services, Inc. 2016. McNeal [McNeil] High School area karst features, July 2016.

Specimen:

Element Occurrence Record

Scientific Name: Texella reyesi **Occurrence #:** 15 **Eo Id:** 1973

Common Name: Bone Cave harvestman **Track Status:** Track all extant and selected historical EOs

Identification Confirmed: Y - Yes **TX Protection Status:**

Global Rank: G2G3 **State Rank:** S2 **Federal Status:** LE

Location Information:

Directions

MILLIPED CAVE; NORTH OF MCNEIL DRIVE CA. 0.7 MILE EAST OF PARMER LANE

Survey Information:

First Observation: **Survey Date:** **Last Observation:** 1993

Eo Type: **Eo Rank:** **Eo Rank Date:**

Observed Area:

Comments:

General Description: CAVE

Comments:

Protection Comments:

Management Comments:

Data:

EO Data:

Community Information:

Scientific Name:	Stratum:	Dominant:	Lifeform:	Composition Note:

Reference:

Citation:

ELLIOTT, WILLIAM R. AND JAMES R. REDDELL. 1993. TABLE OF ENDANGERED CAVE INVERTEBRATES IN TRAVIS AND WILLIAMSON COUNTIES. JULY 12, 1993.

Texas Speleological Survey and Horizon Environmental Services, Inc. 2016. McNeal [McNeil] High School area karst features, July 2016.

Specimen:

Element Occurrence Record

Scientific Name: Texella reyesi **Occurrence #:** 16 **Eo Id:** 3438

Common Name: Bone Cave harvestman **Track Status:** Track all extant and selected historical EOs

Identification Confirmed: Y - Yes **TX Protection Status:**

Global Rank: G2G3 **State Rank:** S2 **Federal Status:** LE

Location Information:

Directions

WELDON CAVE; CA. 0.4 AIR MILE NORTH-NORTHEAST OF INTERSECTION OF PARMER LANE AND MCNEIL DRIVE, JUST BELOW COUNTYLINE

Survey Information:

First Observation: 1965-01-07 **Survey Date:** **Last Observation:** 1993

Eo Type: **Eo Rank:** **Eo Rank Date:**

Observed Area:

Comments:

General Description: A SMALL LIMESTONE CAVE

Comments: The 1965 specimen from Weldon Cave was originally described as Texella reddelli (see A67GOO01TXUS). It was later assigned to T. reyesi (see A92UBI01TXUS).

Protection Comments:

Management Comments:

Data:

EO Data: 7 Jan 1965: A specimen was collected. 11 June 1990: One male, one female, and one juvenile were collected.

Community Information:

Scientific Name:	Stratum:	Dominant:	Lifeform:	Composition Note:

Reference:

Citation:

ELLIOTT, WILLIAM R. AND JAMES R. REDDELL. 1993. TABLE OF ENDANGERED CAVE INVERTEBRATES IN TRAVIS AND WILLIAMSON COUNTIES. JULY 12, 1993.

HARTIGAN, PATRICK. 85-02-08. LETTER TO USF& WS REGARDING CAVE FAUNA.

Elliott, W.R. and J.R. Reddell. 1989. The status and range of five endangered arthropods from caves in the Austin, Texas, region. Prepared for Texas Parks & Wildlife Dept. and Texas Nature Conservancy for the Austin Regional Habitat Conservation Plan, Austin, TX. 103 pp. 1 December 1989.

Texas Speleological Survey and Horizon Environmental Services, Inc. 2016. McNeal [McNeil] High School area karst features, July 2016.

Ubick, Darrell and T.S. Briggs. 1992. The harvestman family Phalangodidae. 3. Revision of Texella Goodnight and Goodnight (Opiliones: Laniatores). Texas Memorial Museum, Speleological Monograph 3:155-240.

Goodnight, C. J. and M. L. Goodnight. 1967. Opilionids from Texas caves (Opiliones, Phalangodidae). American Museum Novitates 2301:1-8.

Specimen:

Element Occurrence Record

Scientific Name: Texella reyesi **Occurrence #:** 18 **Eo Id:** 5883

Common Name: Bone Cave harvestman **Track Status:** Track all extant and selected historical EOs

Identification Confirmed: Y - Yes **TX Protection Status:**

Global Rank: G2G3 **State Rank:** S2 **Federal Status:** LE

Location Information:

Directions

WEST RIM CAVE; IN THE VICINITY OF WEST RIM AND BURNEY ROADS; CA. 0.75 AIR MILE NORTH OF INTERSECTION OF FAR WEST ROAD AND MESA DRIVE

Survey Information:

First Observation: **Survey Date:** **Last Observation:** 1993

Eo Type: **Eo Rank:** **Eo Rank Date:**

Observed Area:

Comments:

General Description: CAVE

Comments:

Protection Comments:

Management Comments:

Data:

EO Data:

Community Information:

Scientific Name:	Stratum:	Dominant:	Lifeform:	Composition Note:

Reference:

Citation:

ELLIOTT, WILLIAM R. AND JAMES R. REDDELL. 1993. TABLE OF ENDANGERED CAVE INVERTEBRATES IN TRAVIS AND WILLIAMSON COUNTIES. JULY 12, 1993.

Specimen:

Element Occurrence Record

Scientific Name: Texella reyesi **Occurrence #:** 30 **Eo Id:** 4586

Common Name: Bone Cave harvestman **Track Status:** Track all extant and selected historical EOs

Identification Confirmed: Y - Yes **TX Protection Status:**

Global Rank: G2G3 **State Rank:** S2 **Federal Status:** LE

Location Information:

Directions

BECK BAT CAVE; WEST OF ROUND ROCK ON WEST SIDE OF HIGHWAY 620 CA. 0.2 MILE SOUTHWEST OF GREAT OAKS DRIVE

Survey Information:

First Observation: **Survey Date:** **Last Observation:** 1993

Eo Type: **Eo Rank:** **Eo Rank Date:**

Observed Area:

Comments:

General Description: CAVE

Comments:

Protection Comments:

Management Comments:

Data:

EO Data:

Community Information:

Scientific Name:	Stratum:	Dominant:	Lifeform:	Composition Note:

Reference:

Citation:

ELLIOTT, WILLIAM R. AND JAMES R. REDDELL. 1993. TABLE OF ENDANGERED CAVE INVERTEBRATES IN TRAVIS AND WILLIAMSON COUNTIES. JULY 12, 1993.

Specimen:

Element Occurrence Record

Scientific Name: Texella reyesi **Occurrence #:** 31 **Eo Id:** 3943

Common Name: Bone Cave harvestman **Track Status:** Track all extant and selected historical EOs

Identification Confirmed: Y - Yes **TX Protection Status:**

Global Rank: G2G3 **State Rank:** S2 **Federal Status:** LE

Location Information:

Directions

BECK BLOWING WELL; WEST OF ROUND ROCK; GO SOUTH CA. 0.5 MILE ON HIGHWAY 620 FROM GREAT OAKS DRIVE, TURN RIGHT, GO CA. 0.3 MILE

Survey Information:

First Observation: **Survey Date:** **Last Observation:** 1993

Eo Type: **Eo Rank:** **Eo Rank Date:**

Observed Area:

Comments:

General Description: CAVE/WELL

Comments:

Protection Comments:

Management Comments:

Data:

EO Data:

Community Information:

Scientific Name:	Stratum:	Dominant:	Lifeform:	Composition Note:

Reference:

Citation:

ELLIOTT, WILLIAM R. AND JAMES R. REDDELL. 1993. TABLE OF ENDANGERED CAVE INVERTEBRATES IN TRAVIS AND WILLIAMSON COUNTIES. JULY 12, 1993.

Specimen:

Element Occurrence Record

Scientific Name: Texella reyesi **Occurrence #:** 32 **Eo Id:** 5441

Common Name: Bone Cave harvestman **Track Status:** Track all extant and selected historical EOs

Identification Confirmed: Y - Yes **TX Protection Status:**

Global Rank: G2G3 **State Rank:** S2 **Federal Status:** LE

Location Information:

Directions

BECK HORSE CAVE; WEST OF ROUND ROCK; SOUTH OF GREAT OAKS DRIVE CA. 0.4 MILE WEST OF HIGHWAY 620

Survey Information:

First Observation: **Survey Date:** **Last Observation:** 1993

Eo Type: **Eo Rank:** **Eo Rank Date:**

Observed Area:

Comments:

General Description: CAVE

Comments:

Protection Comments:

Management Comments:

Data:

EO Data:

Community Information:

Scientific Name:	Stratum:	Dominant:	Lifeform:	Composition Note:

Reference:

Citation:

ELLIOTT, WILLIAM R. AND JAMES R. REDDELL. 1993. TABLE OF ENDANGERED CAVE INVERTEBRATES IN TRAVIS AND WILLIAMSON COUNTIES. JULY 12, 1993.

Specimen:

Element Occurrence Record

Scientific Name: Texella reyesi **Occurrence #:** 33 **Eo Id:** 2365

Common Name: Bone Cave harvestman **Track Status:** Track all extant and selected historical EOs

Identification Confirmed: Y - Yes **TX Protection Status:**

Global Rank: G2G3 **State Rank:** S2 **Federal Status:** LE

Location Information:

Directions

BECK PRIDE CAVE; WEST OF ROUND ROCK; SOUTH OF GREAT OAKS DRIVE CA. 0.2 MILE WEST OF HIGHWAY 620

Survey Information:

First Observation: **Survey Date:** **Last Observation:** 1993

Eo Type: **Eo Rank:** **Eo Rank Date:**

Observed Area:

Comments:

General Description: CAVE

Comments:

Protection Comments:

Management Comments:

Data:

EO Data:

Community Information:

Scientific Name:	Stratum:	Dominant:	Lifeform:	Composition Note:

Reference:

Citation:

ELLIOTT, WILLIAM R. AND JAMES R. REDDELL. 1993. TABLE OF ENDANGERED CAVE INVERTEBRATES IN TRAVIS AND WILLIAMSON COUNTIES. JULY 12, 1993.

Specimen:

Element Occurrence Record

Scientific Name: Texella reyesi **Occurrence #:** 34 **Eo Id:** 8076

Common Name: Bone Cave harvestman **Track Status:** Track all extant and selected historical EOs

Identification Confirmed: Y - Yes **TX Protection Status:**

Global Rank: G2G3 **State Rank:** S2 **Federal Status:** LE

Location Information:

Directions

BECK RANCH CAVE; WEST OF ROUND ROCK; CA. 0.5 AIR MILE NORTHWEST OF HIGHWAY 620 AND GREAT OAKS DRIVE INTERSECTION

Survey Information:

First Observation: **Survey Date:** **Last Observation:** 1993

Eo Type: **Eo Rank:** **Eo Rank Date:**

Observed Area:

Comments:

General Description: CAVE

Comments:

Protection Comments:

Management Comments:

Data:

EO Data:

Community Information:

Scientific Name:	Stratum:	Dominant:	Lifeform:	Composition Note:

Reference:

Citation:

ELLIOTT, WILLIAM R. AND JAMES R. REDDELL. 1993. TABLE OF ENDANGERED CAVE INVERTEBRATES IN TRAVIS AND WILLIAMSON COUNTIES. JULY 12, 1993.

Specimen:

Element Occurrence Record

Scientific Name: Texella reyesi **Occurrence #:** 35 **Eo Id:** 835

Common Name: Bone Cave harvestman **Track Status:** Track all extant and selected historical EOs

Identification Confirmed: Y - Yes **TX Protection Status:**

Global Rank: G2G3 **State Rank:** S2 **Federal Status:** LE

Location Information:

Directions

BECK SEWER CAVE; WEST OF ROUND ROCK; WEST OF HIGHWAY 620 CA. 0.4 MILE NORTH OF GREAT OAKS DRIVE

Survey Information:

First Observation: **Survey Date:** **Last Observation:** 1993

Eo Type: **Eo Rank:** **Eo Rank Date:**

Observed Area:

Comments:

General Description: CAVE

Comments:

Protection Comments:

Management Comments:

Data:

EO Data:

Community Information:

Scientific Name:	Stratum:	Dominant:	Lifeform:	Composition Note:

Reference:

Citation:

ELLIOTT, WILLIAM R. AND JAMES R. REDDELL. 1993. TABLE OF ENDANGERED CAVE INVERTEBRATES IN TRAVIS AND WILLIAMSON COUNTIES. JULY 12, 1993.

Specimen:

Element Occurrence Record

Scientific Name: Texella reyesi **Occurrence #:** 36 **Eo Id:** 3711

Common Name: Bone Cave harvestman **Track Status:** Track all extant and selected historical EOs

Identification Confirmed: Y - Yes **TX Protection Status:**

Global Rank: G2G3 **State Rank:** S2 **Federal Status:** LE

Location Information:

Directions

BECK TEX-2 CAVE; WEST OF ROUND ROCK; WEST OF HIGHWAY 620 CA. 0.3 MILE SOUTH OF GREAT OAKS DRIVE

Survey Information:

First Observation: **Survey Date:** **Last Observation:** 1993

Eo Type: **Eo Rank:** **Eo Rank Date:**

Observed Area:

Comments:

General Description: CAVE

Comments:

Protection Comments:

Management Comments:

Data:

EO Data:

Community Information:

Scientific Name:	Stratum:	Dominant:	Lifeform:	Composition Note:

Reference:

Citation:

ELLIOTT, WILLIAM R. AND JAMES R. REDDELL. 1993. TABLE OF ENDANGERED CAVE INVERTEBRATES IN TRAVIS AND WILLIAMSON COUNTIES. JULY 12, 1993.

Specimen:

Element Occurrence Record

Scientific Name: Texella reyesi **Occurrence #:** 37 **Eo Id:** 4853

Common Name: Bone Cave harvestman **Track Status:** Track all extant and selected historical EOs

Identification Confirmed: Y - Yes **TX Protection Status:**

Global Rank: G2G3 **State Rank:** S2 **Federal Status:** LE

Location Information:

Directions

BONE CAVE, WILLIAMSON COUNTY; SOUTHWEST OF GEORGETOWN; SOUTHEAST OF HIGHWAY 2243 CA. 2.0 MILES FROM ITS INTERSECTION WITH IH-35

Survey Information:

First Observation: 1965 **Survey Date:** 1989-06-04 **Last Observation:** 1993

Eo Type: **Eo Rank:** **Eo Rank Date:**

Observed Area:

Comments:

General Description: A SMALL LIMESTONE CAVE

Comments: SOME SPECIMENS FORMERLY CONSIDERED THE SAME SPECIES AS TEXELLA REDDELLI UNTIL A TAXONOMIC REVISION BY UBICK AND BRIGGS 1992 PLACED MOST OF THE NORTHERN TEXELLA REDDELLI POPULATIONS INTO TEXELLA REYESI; ISOLATION, SPECIATION, AND HABITAT SPECIALIZATION RESULT IN HIGH ENDEMISM IN THESE ORGANISMS

Protection Comments:

Management Comments: PROTECT CAVE ENVIRONMENT

Data:

EO Data: A BLIND, CAVE ADAPTED HARVESTMAN OF SMALL SIZE

Community Information:

Scientific Name:	Stratum:	Dominant:	Lifeform:	Composition Note:

Reference:

Citation:

ELLIOTT, WILLIAM R. AND JAMES R. REDDELL. 1993. TABLE OF ENDANGERED CAVE INVERTEBRATES IN TRAVIS AND WILLIAMSON COUNTIES. JULY 12, 1993.

Ubick, Darrell and T.S. Briggs. 1992. The harvestman family Phalangodidae. 3. Revision of Texella Goodnight and Goodnight (Opiliones: Laniatores). Texas Memorial Museum, Speleological Monograph 3:155-240.

Elliott, W.R. and J.R. Reddell. 1989. The status and range of five endangered arthropods from caves in the Austin , Texas, region. Prepared for Texas Parks & Wildlife Dept. and Texas Nature Conservancy for the Austin Regional Habitat Conservation Plan, Austin, TX. 103 pp. 1 December 1989.

ELLIOTT, WILLIAM (BILL), PH.D. 12102 GRIMSLEY DRIVE AUSTIN, TEXAS 78759 PH-512/458-7410

HARTIGAN, PATRICK. 85-02-08. LETTER TO USF& WS REGARDING CAVE FAUNA.

REDDELL, JAMES R. CURATOR OF INVERTEBRATES TEXAS MEMORIAL MUSEUM UNIVERSITY OF TEXAS, AUSTIN, TX PH-512/471-1075

Specimen:

Element Occurrence Record

Scientific Name: Texella reyesi **Occurrence #:** 38 **Eo Id:** 507

Common Name: Bone Cave harvestman **Track Status:** Track all extant and selected historical EOs

Identification Confirmed: Y - Yes **TX Protection Status:**

Global Rank: G2G3 **State Rank:** S2 **Federal Status:** LE

Location Information:

Directions

BROWN'S CAVE; CA. 3.6 AIR MILES NORTHWEST OF IH-35 AND HIGHWAY 79 INTERSECTION

Survey Information:

First Observation: **Survey Date:** **Last Observation:** 1993

Eo Type: **Eo Rank:** **Eo Rank Date:**

Observed Area:

Comments:

General Description: CAVE

Comments:

Protection Comments:

Management Comments:

Data:

EO Data:

Community Information:

Scientific Name:	Stratum:	Dominant:	Lifeform:	Composition Note:

Reference:

Citation:

ELLIOTT, WILLIAM R. AND JAMES R. REDDELL. 1993. TABLE OF ENDANGERED CAVE INVERTEBRATES IN TRAVIS AND WILLIAMSON COUNTIES. JULY 12, 1993.

Specimen:

Element Occurrence Record

Scientific Name: Texella reyesi **Occurrence #:** 39 **Eo Id:** 7277

Common Name: Bone Cave harvestman **Track Status:** Track all extant and selected historical EOs

Identification Confirmed: Y - Yes **TX Protection Status:**

Global Rank: G2G3 **State Rank:** S2 **Federal Status:** LE

Location Information:

Directions

CAT HOLLOW CAVE #1; WEST OF HIGHWAY 620 WEST OF ROUND ROCK, CA. 2.2 MILES FROM HIGHWAY 620 AND IH-35 INTERSECTION

Survey Information:

First Observation: **Survey Date:** **Last Observation:** 1993

Eo Type: **Eo Rank:** **Eo Rank Date:**

Observed Area:

Comments:

General Description: CAVE

Comments:

Protection Comments:

Management Comments:

Data:

EO Data:

Community Information:

Scientific Name:	Stratum:	Dominant:	Lifeform:	Composition Note:

Reference:

Citation:

ELLIOTT, WILLIAM R. AND JAMES R. REDDELL. 1993. TABLE OF ENDANGERED CAVE INVERTEBRATES IN TRAVIS AND WILLIAMSON COUNTIES. JULY 12, 1993.

Specimen:

Element Occurrence Record

Scientific Name: Texella reyesi **Occurrence #:** 40 **Eo Id:** 7276

Common Name: Bone Cave harvestman **Track Status:** Track all extant and selected historical EOs

Identification Confirmed: Y - Yes **TX Protection Status:**

Global Rank: G2G3 **State Rank:** S2 **Federal Status:** LE

Location Information:

Directions

CAT HOLLOW CAVE #2; WEST OF HIGHWAY 620 WEST OF ROUND ROCK, CA. 2.3 MILES FROM HIGHWAY 620 AND IH-35 INTERSECTION

Survey Information:

First Observation: **Survey Date:** **Last Observation:** 1993

Eo Type: **Eo Rank:** **Eo Rank Date:**

Observed Area:

Comments:

General Description: CAVE

Comments:

Protection Comments:

Management Comments:

Data:

EO Data:

Community Information:

Scientific Name:	Stratum:	Dominant:	Lifeform:	Composition Note:

Reference:

Citation:

ELLIOTT, WILLIAM R. AND JAMES R. REDDELL. 1993. TABLE OF ENDANGERED CAVE INVERTEBRATES IN TRAVIS AND WILLIAMSON COUNTIES. JULY 12, 1993.

Specimen:

Element Occurrence Record

Scientific Name: Texella reyesi **Occurrence #:** 41 **Eo Id:** 3313

Common Name: Bone Cave harvestman **Track Status:** Track all extant and selected historical EOs

Identification Confirmed: Y - Yes **TX Protection Status:**

Global Rank: G2G3 **State Rank:** S2 **Federal Status:** LE

Location Information:

Directions

COON SCAT CAVE; SOUTHWEST OF GEORGETOWN, SOUTHEAST OF HIGHWAY 2243 CA. 1.1 MILES SOUTHWEST OF HIGHWAY 2243 AND IH-35 INTERSECTION

Survey Information:

First Observation: **Survey Date:** **Last Observation:** 1993

Eo Type: **Eo Rank:** **Eo Rank Date:**

Observed Area:

Comments:

General Description: CAVE

Comments:

Protection Comments:

Management Comments:

Data:

EO Data:

Community Information:

Scientific Name:	Stratum:	Dominant:	Lifeform:	Composition Note:

Reference:

Citation:

ELLIOTT, WILLIAM R. AND JAMES R. REDDELL. 1993. TABLE OF ENDANGERED CAVE INVERTEBRATES IN TRAVIS AND WILLIAMSON COUNTIES. JULY 12, 1993.

Specimen:

Element Occurrence Record

Scientific Name: Texella reyesi **Occurrence #:** 42 **Eo Id:** 7710

Common Name: Bone Cave harvestman **Track Status:** Track all extant and selected historical EOs

Identification Confirmed: Y - Yes **TX Protection Status:**

Global Rank: G2G3 **State Rank:** S2 **Federal Status:** LE

Location Information:

Directions

FLINT WASH CAVE; CA. 1.9 AIR MILES WEST OF INTERSECTION OF IH-35 AND HIGHWAY 79

Survey Information:

First Observation: **Survey Date:** **Last Observation:** 1993

Eo Type: **Eo Rank:** **Eo Rank Date:**

Observed Area:

Comments:

General Description: CAVE

Comments:

Protection Comments:

Management Comments:

Data:

EO Data:

Community Information:

Scientific Name:	Stratum:	Dominant:	Lifeform:	Composition Note:

Reference:

Citation:

ELLIOTT, WILLIAM R. AND JAMES R. REDDELL. 1993. TABLE OF ENDANGERED CAVE INVERTEBRATES IN TRAVIS AND WILLIAMSON COUNTIES. JULY 12, 1993.

Specimen:

Element Occurrence Record

Scientific Name: Texella reyesi **Occurrence #:** 43 **Eo Id:** 4555

Common Name: Bone Cave harvestman **Track Status:** Track all extant and selected historical EOs

Identification Confirmed: Y - Yes **TX Protection Status:**

Global Rank: G2G3 **State Rank:** S2 **Federal Status:** LE

Location Information:

Directions

INNER SPACE CAVERN; WEST OF IH-35 AT INTERSECTION WITH HIGHWAY 418

Survey Information:

First Observation: **Survey Date:** **Last Observation:** 1993

Eo Type: **Eo Rank:** **Eo Rank Date:**

Observed Area:

Comments:

General Description: CAVE

Comments:

Protection Comments:

Management Comments:

Data:

EO Data:

Community Information:

Scientific Name:	Stratum:	Dominant:	Lifeform:	Composition Note:

Reference:

Citation:

ELLIOTT, WILLIAM R. AND JAMES R. REDDELL. 1993. TABLE OF ENDANGERED CAVE INVERTEBRATES IN TRAVIS AND WILLIAMSON COUNTIES. JULY 12, 1993.

Specimen:

Element Occurrence Record

Scientific Name: Texella reyesi **Occurrence #:** 44 **Eo Id:** 1364

Common Name: Bone Cave harvestman **Track Status:** Track all extant and selected historical EOs

Identification Confirmed: Y - Yes **TX Protection Status:**

Global Rank: G2G3 **State Rank:** S2 **Federal Status:** LE

Location Information:

Directions

MAN-WITH-A-SPEAR CAVE; CA. 2.2 MILES SOUTHWEST OF INTERSECTION OF HIGHWAY 2243 AND IH-35, ON NORTH SIDE OF HIGHWAY 2243

Survey Information:

First Observation: **Survey Date:** **Last Observation:** 1993

Eo Type: **Eo Rank:** **Eo Rank Date:**

Observed Area:

Comments:

General Description: CAVE

Comments:

Protection Comments:

Management Comments:

Data:

EO Data:

Community Information:

Scientific Name:	Stratum:	Dominant:	Lifeform:	Composition Note:

Reference:

Citation:

ELLIOTT, WILLIAM R. AND JAMES R. REDDELL. 1993. TABLE OF ENDANGERED CAVE INVERTEBRATES IN TRAVIS AND WILLIAMSON COUNTIES. JULY 12, 1993.

Specimen:

Element Occurrence Record

Scientific Name: Texella reyesi **Occurrence #:** 45 **Eo Id:** 6985

Common Name: Bone Cave harvestman **Track Status:** Track all extant and selected historical EOs

Identification Confirmed: Y - Yes **TX Protection Status:**

Global Rank: G2G3 **State Rank:** S2 **Federal Status:** LE

Location Information:

Directions

OFF CAMPUS CAVE, SOUTHWEST OF GEORGETOWN, WEST OF IH-35 AND SOUTH OF HIGHWAY 2243

Survey Information:

First Observation: **Survey Date:** **Last Observation:** 1993

Eo Type: **Eo Rank:** **Eo Rank Date:**

Observed Area:

Comments:

General Description: ENTRANCE TO CAVE IS A SINKHOLE

Comments:

Protection Comments:

Management Comments:

Data:

EO Data:

Community Information:

Scientific Name:	Stratum:	Dominant:	Lifeform:	Composition Note:

Reference:

Citation:

ELLIOTT, WILLIAM R. AND JAMES R. REDDELL. 1993. TABLE OF ENDANGERED CAVE INVERTEBRATES IN TRAVIS AND WILLIAMSON COUNTIES. JULY 12, 1993.

Specimen:

Element Occurrence Record

Scientific Name: Texella reyesi **Occurrence #:** 46 **Eo Id:** 3766

Common Name: Bone Cave harvestman **Track Status:** Track all extant and selected historical EOs

Identification Confirmed: Y - Yes **TX Protection Status:**

Global Rank: G2G3 **State Rank:** S2 **Federal Status:** LE

Location Information:

Directions

ON CAMPUS CAVE; CA. 0.9 AIR MILE SOUTHWEST OF INTERSECTION OF HIGHWAY 2243 AND IH-35

Survey Information:

First Observation: **Survey Date:** **Last Observation:** 1993

Eo Type: **Eo Rank:** **Eo Rank Date:**

Observed Area:

Comments:

General Description: CAVE

Comments:

Protection Comments:

Management Comments:

Data:

EO Data:

Community Information:

Scientific Name:	Stratum:	Dominant:	Lifeform:	Composition Note:

Reference:

Citation:

ELLIOTT, WILLIAM R. AND JAMES R. REDDELL. 1993. TABLE OF ENDANGERED CAVE INVERTEBRATES IN TRAVIS AND WILLIAMSON COUNTIES. JULY 12, 1993.

Specimen:

Element Occurrence Record

Scientific Name: Texella reyesi **Occurrence #:** 47 **Eo Id:** 6507

Common Name: Bone Cave harvestman **Track Status:** Track all extant and selected historical EOs

Identification Confirmed: Y - Yes **TX Protection Status:**

Global Rank: G2G3 **State Rank:** S2 **Federal Status:** LE

Location Information:

Directions

STEAM CAVE; CA. 1.0 AIR MILE SOUTH-SOUTHWEST OF INTERSECTION OF IH-35 AND HIGHWAY 2243

Survey Information:

First Observation: **Survey Date:** **Last Observation:** 1993

Eo Type: **Eo Rank:** **Eo Rank Date:**

Observed Area:

Comments:

General Description: CAVE

Comments:

Protection Comments:

Management Comments:

Data:

EO Data:

Community Information:

Scientific Name:	Stratum:	Dominant:	Lifeform:	Composition Note:

Reference:

Citation:

ELLIOTT, WILLIAM R. AND JAMES R. REDDELL. 1993. TABLE OF ENDANGERED CAVE INVERTEBRATES IN TRAVIS AND WILLIAMSON COUNTIES. JULY 12, 1993.

Specimen:

Element Occurrence Record

Scientific Name: Texella reyesi **Occurrence #:** 48 **Eo Id:** 5134

Common Name: Bone Cave harvestman **Track Status:** Track all extant and selected historical EOs

Identification Confirmed: Y - Yes **TX Protection Status:**

Global Rank: G2G3 **State Rank:** S2 **Federal Status:** LE

Location Information:

Directions

STEP-DOWN CAVE; CA. 3.8 AIR MILES NORTHWEST OF HIGHWAY 79 AND IH-35 INTERSECTION

Survey Information:

First Observation: **Survey Date:** **Last Observation:** 1993

Eo Type: **Eo Rank:** **Eo Rank Date:**

Observed Area:

Comments:

General Description: CAVE

Comments:

Protection Comments:

Management Comments:

Data:

EO Data:

Community Information:

Scientific Name:	Stratum:	Dominant:	Lifeform:	Composition Note:

Reference:

Citation:

ELLIOTT, WILLIAM R. AND JAMES R. REDDELL. 1993. TABLE OF ENDANGERED CAVE INVERTEBRATES IN TRAVIS AND WILLIAMSON COUNTIES. JULY 12, 1993.

Specimen:

Element Occurrence Record

Scientific Name: Texella reyesi **Occurrence #:** 53 **Eo Id:** 7340

Common Name: Bone Cave harvestman **Track Status:** Track all extant and selected historical EOs

Identification Confirmed: Y - Yes **TX Protection Status:**

Global Rank: G2G3 **State Rank:** S2 **Federal Status:** LE

Location Information:

Directions

SIERRA VISTA CAVE; CA. 0.7 AIR MILE SOUTHWEST OF INTERSECTION OF IH-35 AND HIGHWAY 2243

Survey Information:

First Observation: **Survey Date:** **Last Observation:** 1993

Eo Type: **Eo Rank:** **Eo Rank Date:**

Observed Area:

Comments:

General Description: CAVE

Comments:

Protection Comments:

Management Comments:

Data:

EO Data:

Community Information:

Scientific Name:	Stratum:	Dominant:	Lifeform:	Composition Note:

Reference:

Citation:

ELLIOTT, WILLIAM R. AND JAMES R. REDDELL. 1993. TABLE OF ENDANGERED CAVE INVERTEBRATES IN TRAVIS AND WILLIAMSON COUNTIES. JULY 12, 1993.

Specimen:

Element Occurrence Record

Scientific Name: Thamnophis sirtalis annectens **Occurrence #:** 11 **Eo Id:** 6167

Common Name: Texas Garter Snake **Track Status:** Track all extant and selected historical EOs

Identification Confirmed: Y - Yes **TX Protection Status:**

Global Rank: G5T4 **State Rank:** S1 **Federal Status:**

Location Information:

Directions

1 MILE EAST OF AUSTIN, CAPTAIN ALDRICH'S PLACE

Survey Information:

First Observation: 1942-05-28 **Survey Date:** **Last Observation:** 1946-04-18

Eo Type: **Eo Rank:** H **Eo Rank Date:** 2006-12-07

Observed Area:

Comments:

General Description:

Comments:

Protection Comments:

Management Comments:

Data:

EO Data: UNDER LOG IN CREEK BOTTOM AT 1600 SUNNY DAY 94 DEGREES F.; UNDER BARK 1915 SUNNY DAY 90 DEGREES F.; UNDER ROCKS CREEK BOTTOM 1630 SUNNY DAY 75 DEGREES F.; UNDER ROTTEN LOG 1830 SUNNY DAY 92 DEGREES F.; UNDER LOGS AND ROCKS NEAR CREEK 1535-1630 SUNNY DAY WITH 4 MPH SOUTH WIND 79 DEGREES F.

Community Information:

Scientific Name:	Stratum:	Dominant:	Lifeform:	Composition Note:

Reference:

Citation:

BROWN, L.M. 1946. SPECIMEN # BCB 3039, 18 APRIL 1946. SPECIMEN COLLECTION, STRECKER MUSEUM. SMU.

Specimen:

BROWN, L.M. 1942. SPECIMEN # BCB 3027-8. 3 AUG 1942. STRECKER MUSEUM. SMU. (S42BROSMTXUS)

BROWN, L.M. 1942. SPECIMEN # BCB 3032. 28 MAY 1942. STRECKER MUSEUM. SMU. (S42BROSMTXUS)

BROWN, L.M. 1943. SPECIMEN # BCB 3029-31. 17 MAR 1943. STRECKER MUSEUM. SMU. (S43BROSMTXUS)

BROWN, L.M. 1946. SPECIMEN # BCB 3034-8. 24 FEB 1946. STRECKER MUSEUM. SMU. (S46BROSMTXUS)

BROWN, L.M. 1946. SPECIMEN # BCB 3039, 18 APRIL 1946. SPECIMEN COLLECTION, STRECKER MUSEUM. SMU. (S46BROSMTXUS)

Baylor University, Bryce C. Brown Collection at Strecker Museum. 1942. L.M. Brown, Catalog # 3027, 3028 BCB, SM. 3 August 1942.

Baylor University, Bryce C. Brown Collection at Strecker Museum. 1942. L.M. Brown, Catalog # 3032 BCB, SM. 28 May 1942.

Baylor University, Bryce C. Brown Collection at Strecker Museum. 1943. L.M. Brown, Catalog # 3029-3031 BCB, SM. 17 March 1943.

Baylor University, Bryce C. Brown Collection at Strecker Museum. 1946. L.M. Brown, Catalog # 3034-3038 BCB, SM. 23 February 1946.

Baylor University, Bryce C. Brown Collection at Strecker Museum. 1946. L.M. Brown, Catalog # 3039 BCB, SM. 18 April 1946.

Element Occurrence Record

Scientific Name: Tridens buckleyanus **Occurrence #:** 7 **Eo Id:** 2528

Common Name: Buckley tridens **Track Status:** Track all extant and selected historical EOs

Identification Confirmed: Y - Yes **TX Protection Status:**

Global Rank: G3G4 **State Rank:** S3S4 **Federal Status:**

Location Information:

Directions

ABOUT 8 MILES NORTH OF UNIV. OF TEXAS CAMPUS, ON THE CUESTA OF THE AUSTIN CHALK FORMATION, JUST IN FRONT OF THE WALNUT CREEK BAPTIST CHURCH.

Survey Information:

First Observation: 1981 **Survey Date:** **Last Observation:** 1981-10-07

Eo Type: **Eo Rank:** **Eo Rank Date:**

Observed Area: 1.00

Comments:

General Description: OAK-JUNIPER SCRUB

Comments:

Protection Comments:

Management Comments:

Data:

EO Data: UNCOMMON; IN FRUIT

Community Information:

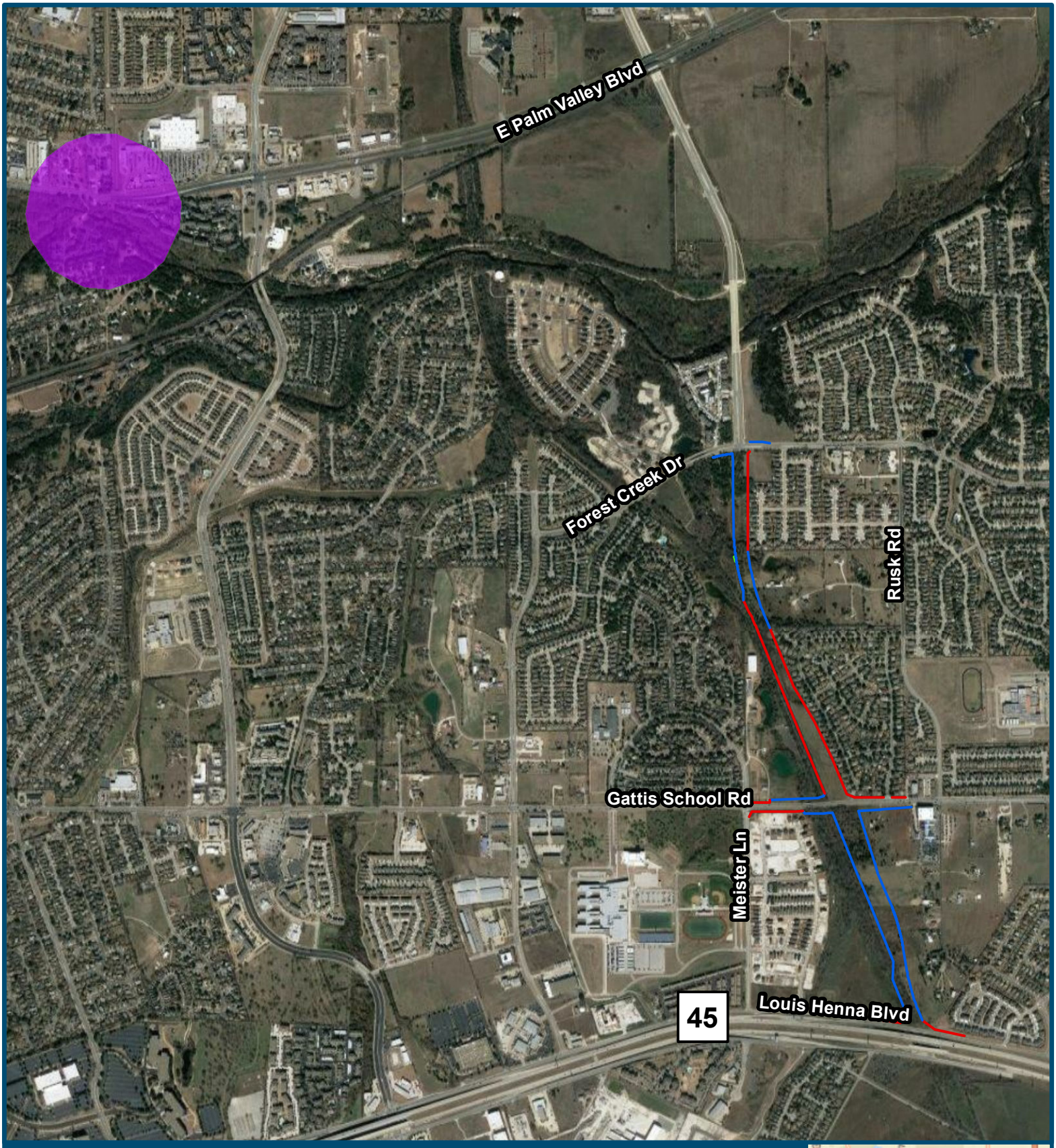
Scientific Name:	Stratum:	Dominant:	Lifeform:	Composition Note:

Reference:

Citation:

Specimen:

University of Texas at Austin Herbarium. 1981. Marshall C. Johnston (s.n.) and Andrew McDonald, Specimen # none TEX. 7 October 1981.



Critical Habitat Map

Proposed Kenney Fort Blvd Extension

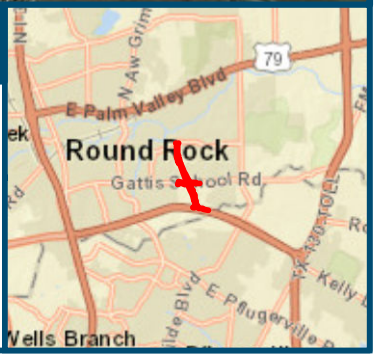
From Forest Creek Dr
To SH 45
Williamson County, TX
CSJ: 0914-05-195

Proposed ROW
Existing ROW
Easement
Jollyville Plateau Salamander Critical Habitat

NORTH

0 500 1,000
Feet

Basemap: ESRI Streets 2016, Texas Google Imagery



MEMORANDUM

To: Texas Parks and Wildlife Department
From: Andy Blair, TxDOT Austin District
Date: November 7, 2018
Subject: Jollyville Plateau Salamander Critical Habitat

Kenney Fort Boulevard (Blvd) is a major arterial roadway in the City of Round Rock's Transportation Master Plan. The roadway is being constructed in phases. Phase 1, which extends between Chandler Creek Blvd and Forest Creek Drive, was completed during the summer of 2013. Phases 2 and 3 will extend Kenney Fort Boulevard south approximately 1.5 miles from its current terminus at Forest Creek Drive to State Highway (SH) 45 (the project area).

The Jollyville Plateau salamander is listed as threatened with extinction in accordance with the Endangered Species Act, and has 4,331 acres of critical habitat designated by the United States Fish and Wildlife Service (USFWS) in 32 discrete critical habitat units. These units contain the entire known distribution of the species (78 Federal Register 51328). There is no critical habitat within the project area for the Jollyville Plateau Salamander; however, there is critical habitat approximately 1.5 miles upstream of the project area (see KenneyFort_CriticalHabitatMap.pdf).

CP&Y, Inc. hydrologists reviewed the project schematics and created a conceptual hydrological model to evaluate the potential water flow impacts to the critical habitat of the Jollyville Plateau salamander located within 1.5 miles of the project area. The Edwards Aquifer that provides habitat for the salamander lies northwest of the project area. The National Hydrography Dataset confirmed that water generally flows southeasterly from the project area, away from the known salamander habitat. A study conducted by the Texas Water Development Board (TWDB) on the Edwards Aquifer in the Austin area evaluated the flow of Brushy Creek in relation to the Edwards Aquifer and determined that though a fault does cross the aquifer and interrupt flow of the creek, the location of the project area is outside of the area affected by the flow interruption (TWDB 1986). A hydrogeologic map produced for this TWDB study shows the location of the fault and confirms that the fault is not expected to redirect the flow of groundwater towards the salamander critical habitat. Therefore, the Jollyville Plateau Salamander and its habitat is unlikely to be affected by the proposed project and no coordination with the USFWS is required.

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Austin Ecological Services Field Office
10711 Burnet Road, Suite 200
Austin, TX 78758-4460
Phone: (512) 490-0057 Fax: (512) 490-0974
http://www.fws.gov/southwest/es/AustinTexas/
http://www.fws.gov/southwest/es/EndangeredSpecies/lists/

In Reply Refer To: October 09, 2019
Consultation Code: 02ETAU00-2018-SLI-0458
Event Code: 02ETAU00-2020-E-00163
Project Name: Kenney Fort Blvd

Subject: Updated list of threatened and endangered species that may occur in your proposed project location, and/or may be affected by your proposed project

To Whom It May Concern:

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

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

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

or endangered species and to determine whether projects may affect these species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2)(c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

While a Federal agency may designate a non-Federal representative to conduct informal consultation or prepare a biological assessment, the Federal Agency must notify the Service in writing of any such designation. The Federal agency shall also independently review and evaluate the scope and content of a biological assessment prepared by their designated non-Federal representative before that document is submitted to the Service.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by a federally funded, permitted or authorized activity, the agency is required to consult with the Service pursuant to 50 CFR 402. The following definitions are provided to assist you in reaching a determination:

- *No effect* - the proposed action will not affect federally listed species or critical habitat. A “no effect” determination does not require section 7 consultation and no coordination or contact with the Service is necessary. However, if the project changes or additional information on the distribution of listed or proposed species becomes available, the project should be reanalyzed for effects not previously considered.
- *May affect, but is not likely to adversely affect* - the project may affect listed species and/or critical habitat; however, the effects are expected to be discountable, insignificant, or completely beneficial. Certain avoidance and minimization measures may need to be implemented in order to reach this level of effect. The Federal agency or the designated non-Federal representative should consult with the Service to seek written concurrence that adverse effects are not likely. Be sure to include all of the information and documentation used to reach your decision with your request for concurrence. The Service must have this documentation before issuing a concurrence.
- *Is likely to adversely affect* - adverse effects to listed species may occur as a direct or indirect result of the proposed action. For this determination, the effect of the action is neither discountable nor insignificant. If the overall effect of the proposed action is beneficial to the listed species but the action is also likely to cause some adverse effects to individuals of that species, then the proposed action “is likely to adversely affect” the listed species. The analysis should consider all interrelated and interdependent actions. An “is likely to adversely affect” determination requires the Federal action agency to initiate formal section 7 consultation with our office.

Regardless of the determination, the Service recommends that the Federal agency maintain a complete record of the evaluation, including steps leading to the determination of effect, the qualified personnel conducting the evaluation, habitat conditions, site photographs, and any other related information. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at: http://www.fws.gov/endangered/esa-library/pdf/TOC-GLOS.PDF.

Migratory Birds

For projects that may affect migratory birds, the Migratory Bird Treaty Act (MBTA) implements various treaties and conventions for the protection of these species. Under the MBTA, taking, killing, or possessing migratory birds is unlawful. Migratory birds may nest in trees, brushy areas, or other areas of suitable habitat. The Service recommends activities requiring vegetation removal or disturbance avoid the peak nesting period of March through August to avoid destruction of individuals, nests, or eggs. If project activities must be conducted during this time, we recommend surveying for nests prior to conducting work. If a nest is found, and if possible, the Service recommends a buffer of vegetation remain around the nest until the young have fledged or the nest is abandoned.

For additional information concerning the MBTA and recommendations to reduce impacts to migratory birds please contact the U.S. Fish and Wildlife Service Migratory Birds Office, 500 Gold Ave. SW, Albuquerque, NM 87102. A list of migratory birds may be viewed at https://www.fws.gov/birds/management/managed-species/migratory-bird-treaty-act-protected-species.php. Guidance for minimizing impacts to migratory birds for projects including communications towers can be found at: https://www.fws.gov/birds/management/project-assessment-tools-and-guidance/guidance-documents/communication-towers.php. Additionally, wind energy projects should follow the wind energy guidelines

https://www.fws.gov/birds/management/project-assessment-tools-and-guidance/guidance-documents/wind-energy.php) for minimizing impacts to migratory birds and bats.

Finally, please be aware that bald and golden eagles are protected under the Bald and Golden Eagle Protection Act (16 U.S.C. 668 et seq.), and projects affecting these species may require development of an eagle conservation plan https://www.fws.gov/birds/management/project-assessment-tools-and-guidance/guidance-documents/eagles.php.

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

Attachment(s):

- Official Species List

Official Species List

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

Austin Ecological Services Field Office
10711 Burnet Road, Suite 200
Austin, TX 78758-4460
(512) 490-0057

Project Summary

Consultation Code: 02ETAU00-2018-SLI-0458

Event Code: 02ETAU00-2020-E-00163

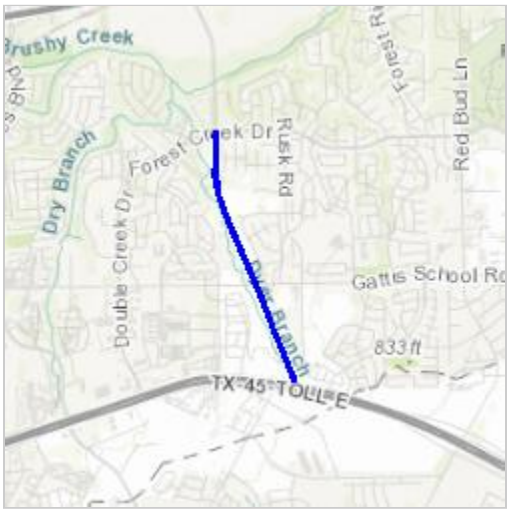
Project Name: Kenney Fort Blvd

Project Type: TRANSPORTATION

Project Description: Roadway expansion an addition project for the City of Round Rock, covering approximately 1.5 miles

Project Location:

Approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/place/30.49869698758737N97.63374249357935W



Counties: Williamson, TX

Endangered Species Act Species

There is a total of 15 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species. Note that 3 of these species should be considered only under certain conditions.

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

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

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

Birds

NAME	STATUS
Golden-cheeked Warbler (=wood) *Dendroica chrysoparia* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/33	Endangered
Least Tern *Sterna antillarum* Population: interior pop. No critical habitat has been designated for this species. This species only needs to be considered under the following conditions: ▪ Wind Energy Projects Species profile: https://ecos.fws.gov/ecp/species/8505	Endangered
Piping Plover *Charadrius melodus* Population: [Atlantic Coast and Northern Great Plains populations] - Wherever found, except those areas where listed as endangered. There is **final** critical habitat for this species. Your location is outside the critical habitat. This species only needs to be considered under the following conditions: ▪ Wind Energy Projects Species profile: https://ecos.fws.gov/ecp/species/6039	Threatened
Red Knot *Calidris canutus rufa* No critical habitat has been designated for this species. This species only needs to be considered under the following conditions: ▪ Wind Energy Projects Species profile: https://ecos.fws.gov/ecp/species/1864	Threatened
Whooping Crane *Grus americana* Population: Wherever found, except where listed as an experimental population There is **final** critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/758	Endangered

Amphibians

NAME	STATUS
Georgetown Salamander *Eurycea naufragia* There is **proposed** critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/7278	Threatened
Jollyville Plateau Salamander *Eurycea tonkawae* There is **final** critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/3116	Threatened
Salado Salamander *Eurycea chisholmensis* There is **proposed** critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/3411	Threatened

Clams

NAME	STATUS
Texas Fawnsfoot *Truncilla macrodon*	Candidate
No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/8965	
Texas Pimpleback *Quadrula petrina*	Candidate
No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/8966	

Insects

NAME	STATUS
Coffin Cave Mold Beetle *Batrisodes texanus*	Endangered
No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/6234	
Tooth Cave Ground Beetle *Rhadine persephone*	Endangered
No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/5625	

Arachnids

NAME	STATUS
Bone Cave Harvestman *Texella reyesi*	Endangered
No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/5306	
Tooth Cave Spider *Neoleptoneta myopica*	Endangered
No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/2360	

Flowering Plants

NAME	STATUS
Bracted Twistflower *Streptanthus bracteatus*	Candidate
No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/2856	

Critical habitats

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

Last Update: 7/17/2019

WILLIAMSON COUNTY

AMPHIBIANS

Barton Springs salamander *Eurycea sosorum*

Dependent upon water flow/quality from the Barton Springs pool of the Edwards Aquifer; known from the outlets of Barton Springs and subterranean water-filled caverns; found under rocks, in gravel, or among aquatic vascular plants and algae, as available; feeds primarily on amphipods

Federal Status: LE	State Status: E	SGCN: Y
Endemic: Y	Global Rank: G1	State Rank: S1

Georgetown salamander *Eurycea naufragia*

Known from springs and waters in and around town of Georgetown in Williamson County

Federal Status: LT	State Status:	SGCN: Y
Endemic: Y	Global Rank: G1	State Rank: S1

Houston toad *Anaxyrus houstonensis*

Primary habitat is sandy soil which supports populations of Pinus taeda, water in pools, ephemeral pools, stock tanks; breeds in spring especially after rains; burrows in soil of adjacent uplands when inactive; breeds February-June; associated with soils of the Sparta, Carrizo, Goliad, Queen City, Recklaw, Weches, and Willis geologic formations.

Federal Status: LE	State Status: E	SGCN: Y
Endemic: Y	Global Rank: G1	State Rank: S1

Jollyville Plateau salamander *Eurycea tonkawae*

Known from springs and waters of some caves north of the Colorado River

Federal Status: LT	State Status:	SGCN: Y
Endemic: Y	Global Rank: G1	State Rank: S2

Salado Springs salamander *Eurycea chisholmensis*

Surface springs and subterranean waters of the Salado Springs system along Salado Creek

Federal Status: LT	State Status:	SGCN: Y
Endemic: Y	Global Rank: G1	State Rank: S1

southern crawfish frog *Lithobates areolatus areolatus*

The Southern Crawfish Frog can be found in abandoned crawfish holes and small mammal burrows. This species inhabits moist meadows, pasturelands, pine scrub, and river flood plains. This species spends nearly all of its time in burrows and only leaves the burrow area to breed. Although this species can be difficult to detect due to its reclusive nature, the call of breeding males can be heard over great distances. Eggs are laid and larvae develop in temporary water such as flooded fields, ditches, farm ponds and small lakes. Habitat: Shallow water, Herbaceous Wetland, Riparian, Temporary Pool, Cropland/hedgerow, Grassland/herbaceous, Suburban/orchard, Woodland– Conifer.

Federal Status:	State Status:	SGCN: Y
Endemic: N	Global Rank: G4T4	State Rank: S3

WILLIAMSON COUNTY

AMPHIBIANS

Strecker's chorus frog *Pseudacris streckeri*

Wooded floodplains and flats, prairies, cultivated fields and marshes. Likes sandy substrates.

Federal Status:	State Status:	SGCN: Y
Endemic: N	Global Rank: G5	State Rank: S3

Texas salamander *Eurycea neotenes*

Troglobitic; springs, seeps, cave streams, and creek headwaters; often hides under rocks and leaves in water; restricted to Helotes and Leon Creek drainages

Federal Status:	State Status:	SGCN: Y
Endemic: Y	Global Rank: G1	State Rank: S1S2

Woodhouse's toad *Anaxyrus woodhousii*

Extremely catholic up to 5000 feet, does very well (except for traffic) in association with man.

Federal Status:	State Status:	SGCN: Y
Endemic: N	Global Rank: G5	State Rank: SU

ARACHNIDS

Bone Cave harvestman *Texella reyesi*

Small, blind, cave-adapted harvestman endemic to several caves in Travis and Williamson counties; weakly differentiated from Texella reddelli

Federal Status: LE	State Status:	SGCN: Y
Endemic: Y	Global Rank: G2G3	State Rank: S2

No accepted common name *Cicurina vibora*

Habitat description is not available at this time.

Federal Status:	State Status:	SGCN: Y
Endemic: Y	Global Rank: G1G2	State Rank: S1

No accepted common name *Cicurina travisae*

Habitat description is not available at this time.

Federal Status:	State Status:	SGCN: Y
Endemic: Y	Global Rank: G1G2Q	State Rank: S1

No accepted common name *Tartarocreagris infernalis*

Habitat description is not available at this time.

Federal Status:	State Status:	SGCN: Y
Endemic: Y	Global Rank: G2G3	State Rank: S2?

WILLIAMSON COUNTY

ARACHNIDS

No accepted common name *Cicurina browni*

Habitat description is not available at this time.

Federal Status:	State Status:	SGCN: Y
Endemic: Y	Global Rank: G1G2	State Rank: S1

No accepted common name *Eidmannella reclusa*

Habitat description is not available at this time.

Federal Status:	State Status:	SGCN: Y
Endemic: Y	Global Rank: G1G2	State Rank: S1

Reddell harvestman *Texella reddelli*

Small, blind, cave-adapted harvestman endemic to a few caves in Travis and Williamson counties

Federal Status: LE	State Status:	SGCN: Y
Endemic: Y	Global Rank: G2G3	State Rank: S2

BIRDS

bald eagle *Haliaeetus leucocephalus*

Found primarily near rivers and large lakes; nests in tall trees or on cliffs near water; communally roosts, especially in winter; hunts live prey, scavenges, and pirates food from other birds

Federal Status:	State Status: T	SGCN: Y
Endemic: N	Global Rank: G5	State Rank: S3B,S3N

black rail *Laterallus jamaicensis*

Salt, brackish, and freshwater marshes, pond borders, wet meadows, and grassy swamps; nests in or along edge of marsh, sometimes on damp ground, but usually on mat of previous years dead grasses; nest usually hidden in marsh grass or at base of Salicornia

Federal Status: PT	State Status:	SGCN: Y
Endemic: N	Global Rank: G3G4	State Rank: S2

black-capped vireo *Vireo atricapilla*

Oak-juniper woodlands with distinctive patchy, two-layered aspect; shrub and tree layer with open, grassy spaces; requires foliage reaching to ground level for nesting cover; return to same territory, or one nearby, year after year; deciduous and broad-leaved shrubs and trees provide insects for feeding; species composition less important than presence of adequate broad-leaved shrubs, foliage to ground level, and required structure; nesting season March-late summer

Federal Status:	State Status: E	SGCN: Y
Endemic: N	Global Rank: G3	State Rank: S2B

WILLIAMSON COUNTY

BIRDS

Franklin's gull *Leucophaeus pipixcan*

Habitat description is not available at this time.

Federal Status:	State Status:	SGCN: Y
Endemic: N	Global Rank: G4G5	State Rank: S2N

golden-cheeked warbler *Setophaga chrysoparia*

Ashe juniper in mixed stands with various oaks (Quercus spp.). Edges of cedar brakes. Dependent on Ashe juniper (also known as cedar) for long fine bark strips, only available from mature trees, used in nest construction; nests are placed in various trees other than Ashe juniper; only a few mature junipers or nearby cedar brakes can provide the necessary nest material; forage for insects in broad-leaved trees and shrubs; nesting late March-early summer.

Federal Status: LE	State Status: E	SGCN: Y
Endemic: N	Global Rank: G2	State Rank: S2B

interior least tern *Sternula antillarum athalassos*

Sand beaches, flats, bays, inlets, lagoons, islands. Subspecies is listed only when inland (more than 50 miles from a coastline); nests along sand and gravel bars within braided streams, rivers; also know to nest on man-made structures (inland beaches, wastewater treatment plants, gravel mines, etc); eats small fish and crustaceans, when breeding forages within a few hundred feet of colony

Federal Status: LE	State Status: E	SGCN: Y
Endemic: N	Global Rank: G4T2Q	State Rank: S1B

mountain plover *Charadrius montanus*

Breeding: nests on high plains or shortgrass prairie, on ground in shallow depression; nonbreeding: shortgrass plains and bare, dirt (plowed) fields; primarily insectivorous

Federal Status:	State Status:	SGCN: Y
Endemic: N	Global Rank: G3	State Rank: S2

piping plover *Charadrius melodus*

Beaches, sandflats, and dunes along Gulf Coast beaches and adjacent offshore islands. Also spoil islands in the Intracoastal Waterway. Based on the November 30, 1992 Section 6 Job No. 9.1, Piping Plover and Snowy Plover Winter Habitat Status Survey, algal flats appear to be the highest quality habitat. Some of the most important aspects of algal flats are their relative inaccessibility and their continuous availability throughout all tidal conditions. Sand flats often appear to be preferred over algal flats when both are available, but large portions of sand flats along the Texas coast are available only during low-very low tides and are often completely unavailable during extreme high tides or strong north winds. Beaches appear to serve as a secondary habitat to the flats associated with the primary bays, lagoons, and inter-island passes. Beaches are rarely used on the southern Texas coast, where bayside habitat is always available, and are abandoned as bayside habitats become available on the central and northern coast. However, beaches are probably a vital habitat along the central and northern coast (i.e. north of Padre Island) during periods of extreme high tides that cover the flats. Optimal site characteristics appear to be large in area, sparsely vegetated, continuously available or in close proximity to secondary habitat, and with limited human disturbance.

Federal Status: LT	State Status: T	SGCN: Y
Endemic: N	Global Rank: G3	State Rank: S2N

red knot *Calidris canutus rufa*

WILLIAMSON COUNTY

BIRDS

Red knots migrate long distances in flocks northward through the contiguous United States mainly April-June, southward July-October. A small plump-bodied, short-necked shorebird that in breeding plumage, typically held from May through August, is a distinctive and unique pottery orange color. Its bill is dark, straight and, relative to other shorebirds, short-to-medium in length. After molting in late summer, this species is in a drab gray-and-white non-breeding plumage, typically held from September through April. In the non-breeding plumage, the knot might be confused with the omnipresent Sanderling. During this plumage, look for the knot's prominent pale eyebrow and whitish flanks with dark barring. The Red Knot prefers the shoreline of coast and bays and also uses mudflats during rare inland encounters. Primary prey items include coquina clam (Donax spp.) on beaches and dwarf surf clam (Mulinia lateralis) in bays, at least in the Laguna Madre. Wintering Range includes- Aransas, Brazoria, Calhoun, Cameron, Chambers, Galveston, Jefferson, Kennedy, Kleberg, Matagorda, Nueces, San Patricio, and Willacy. Habitat: Primarily seacoasts on tidal flats and beaches, herbaceous wetland, and Tidal flat/shore.

Federal Status: LT	State Status:	SGCN: Y
Endemic: N	Global Rank: G4T2	State Rank: SNRN

swallow-tailed kite *Elanoides forficatus*

Lowland forested regions, especially swampy areas, ranging into open woodland; marshes, along rivers, lakes, and ponds; nests high in tall tree in clearing or on forest woodland edge, usually in pine, cypress, or various deciduous trees

Federal Status:	State Status: T	SGCN: Y
Endemic: N	Global Rank: G5	State Rank: S2B

western burrowing owl *Athene cunicularia hypugaea*

Open grasslands, especially prairie, plains, and savanna, sometimes in open areas such as vacant lots near human habitation or airports; nests and roosts in abandoned burrows

Federal Status:	State Status:	SGCN: Y
Endemic: N	Global Rank: G4T4	State Rank: S2

white-faced ibis *Plegadis chihi*

Prefers freshwater marshes, sloughs, and irrigated rice fields, but will attend brackish and saltwater habitats; currently confined to near-coastal rookeries in so-called hog-wallow prairies. Nests in marshes, in low trees, on the ground in bulrushes or reeds, or on floating mats.

Federal Status:	State Status: T	SGCN: Y
Endemic: N	Global Rank: G5	State Rank: S4B

whooping crane *Grus americana*

Small ponds, marshes, and flooded grain fields for both roosting and foraging. Potential migrant via plains throughout most of state to coast; winters in coastal marshes of Aransas, Calhoun, and Refugio counties.

Federal Status: LE	State Status: E	SGCN: Y
Endemic: N	Global Rank: G1	State Rank: S1N

WILLIAMSON COUNTY

BIRDS

wood stork *Mycteria americana*

Prefers to nest in large tracts of baldcypress (Taxodium distichum) or red mangrove (Rhizophora mangle); forages in prairie ponds, flooded pastures or fields, ditches, and other shallow standing water, including salt-water; usually roosts communally in tall snags, sometimes in association with other wading birds (i.e. active heronries); breeds in Mexico and birds move into Gulf States in search of mud flats and other wetlands, even those associated with forested areas; formerly nested in Texas, but no breeding records since 1960

Federal Status:	State Status: T	SGCN: Y
Endemic: N	Global Rank: G4	State Rank: SHB,S2N

zone-tailed hawk *Buteo albonotatus*

Arid open country, including open deciduous or pine-oak woodland, mesa or mountain county, often near watercourses, and wooded canyons and tree-lined rivers along middle-slopes of desert mountains; nests in various habitats and sites, ranging from small trees in lower desert, giant cottonwoods in riparian areas, to mature conifers in high mountain regions

Federal Status:	State Status: T	SGCN: Y
Endemic: N	Global Rank: G4	State Rank: S3B

FISH

Guadalupe bass *Micropterus treculii*

Endemic to the streams of the northern and eastern Edwards Plateau including portions of the Brazos, Colorado, Guadalupe, and San Antonio basins; species also found outside of the Edwards Plateau streams in decreased abundance, primarily in the lower Colorado River; two introduced populations have been established in the Nueces River system. A pure population was re-established in a portion of the Blanco River in 2014. Species prefers lentic environments but commonly taken in flowing water; numerous smaller fish occur in rapids, many times near eddies; large individuals found mainly in riffle tail races; usually found in spring-fed streams having clear water and relatively consistent temperatures.

Federal Status:	State Status:	SGCN: Y
Endemic: Y	Global Rank: G3	State Rank: S3

Texas shiner *Notropis amabilis*

In Texas, it is found primarily in Edwards Plateau streams from the San Gabriel River in the east to the Pecos River in the west. Typical habitat includes rocky or sandy runs, as well as pools.

Federal Status:	State Status:	SGCN: Y
Endemic: N	Global Rank: G4	State Rank: S4

INSECTS

a mayfly *Procloeon distinctum*

Mayflies distinguished by aquatic larval stage; adult stage generally found in shoreline vegetation

Federal Status:	State Status:	SGCN: Y
Endemic: Y	Global Rank: G1G3Q	State Rank: S2?

WILLIAMSON COUNTY

INSECTS

a mayfly *Pseudocentroptiloides morihari*

Mayflies distinguished by aquatic larval stage; adult stage generally found in shoreline vegetation

Federal Status:	State Status:	SGCN: Y
Endemic: Y	Global Rank: G2G3	State Rank: S2?

American bumblebee *Bombus pensylvanicus*

Habitat description is not available at this time.

Federal Status:	State Status:	SGCN: Y
Endemic:	Global Rank: G3G4	State Rank: SNR

Coffin Cave mold beetle *Batrisodes texanus*

Resident, small, cave-adapted beetle found in small Edwards Limestone caves in Travis and Williamson counties

Federal Status: LE	State Status:	SGCN: Y
Endemic: Y	Global Rank: G1G2	State Rank: S1

Coffin Cave mold beetle *Batrisodes cryptotexanus*

Resident, small, cave-adapted beetle found in small Edwards Limestone caves in Travis and Williamson counties.

Federal Status:	State Status:	SGCN: Y
Endemic:	Global Rank: G2	State Rank: SNR

Kretschmarr Cave mold beetle *Texamaurops reddelli*

Small, cave-adapted beetle found under rocks buried in silt; small, Edwards Limestone caves in of the Jollyville Plateau, a division of the Edwards Plateau

Federal Status: LE	State Status:	SGCN: Y
Endemic: Y	Global Rank: G1G2	State Rank: S1

No accepted common name *Bombus variabilis*

Habitat description is not available at this time.

Federal Status:	State Status:	SGCN: Y
Endemic:	Global Rank: GU	State Rank: SNR

No accepted common name *Lymantes nadineae*

Habitat description is not available at this time.

Federal Status:	State Status:	SGCN: Y
Endemic:	Global Rank: GNR	State Rank: SNR

No accepted common name *Oncopodura fenestra*

Habitat description is not available at this time.

Federal Status:	State Status:	SGCN: Y

WILLIAMSON COUNTY

INSECTS

Endemic: Y | Global Rank: G2G3 | State Rank: S2?

No accepted common name *Rhadine noctivaga*

Habitat description is not available at this time.

Federal Status: | State Status: | SGCN: Y

Endemic: Y | Global Rank: G1G2 | State Rank: S1

No accepted common name *Rhadine russelli*

Habitat description is not available at this time.

Federal Status: | State Status: | SGCN: Y

Endemic: Y | Global Rank: G1G2 | State Rank: S1

No accepted common name *Rhadine subterranea*

Habitat description is not available at this time.

Federal Status: | State Status: | SGCN: Y

Endemic: Y | Global Rank: G2 | State Rank: S2

Tooth Cave ground beetle *Rhadine persephone*

Resident, small, cave-adapted beetle found in small Edwards Limestone caves in Travis and Williamson counties

Federal Status: LE | State Status: | SGCN: Y

Endemic: Y | Global Rank: G1G2 | State Rank: S1

MAMMALS

American badger *Taxidea taxus*

Habitat description is not available at this time.

Federal Status: | State Status: | SGCN: Y

Endemic: N | Global Rank: G5 | State Rank: S5

big brown bat *Eptesicus fuscus*

Any wooded areas or woodlands except south Texas. Riparian areas in west Texas.

Federal Status: | State Status: | SGCN: Y

Endemic: N | Global Rank: G5 | State Rank: S5

WILLIAMSON COUNTY

MAMMALS

big free-tailed bat *Nyctinomops macrotis*

Habitat data sparse but records indicate that species prefers to roost in crevices and cracks in high canyon walls, but will use buildings, as well; reproduction data sparse, gives birth to single offspring late June-early July; females gather in nursery colonies; winter habits undetermined, but may hibernate in the Trans-Pecos; opportunistic insectivore

Federal Status:	State Status:	SGCN: Y
Endemic:	Global Rank: G5	State Rank: S3

cave myotis bat *Myotis velifer*

Colonial and cave-dwelling; also roosts in rock crevices, old buildings, carports, under bridges, and even in abandoned Cliff Swallow (Hirundo pyrrhonota) nests; roosts in clusters of up to thousands of individuals; hibernates in limestone caves of Edwards Plateau and gypsum cave of Panhandle during winter; opportunistic insectivore.

Federal Status:	State Status:	SGCN: Y
Endemic: N	Global Rank: G4G5	State Rank: S4

eastern red bat *Lasiurus borealis*

Found in a variety of habitats in Texas. Usually associated with wooded areas. Found in towns especially during migration.

Federal Status:	State Status:	SGCN: Y
Endemic: N	Global Rank: G3G4	State Rank: S4

eastern spotted skunk *Spilogale putorius*

Catholic; open fields prairies, croplands, fence rows, farmyards, forest edges & woodlands. Prefer wooded, brushy areas & tallgrass prairies. S.p. ssp. interrupta found in wooded areas and tallgrass prairies, preferring rocky canyons and outcrops when such sites are available.

Federal Status:	State Status:	SGCN: Y
Endemic: N	Global Rank: G4	State Rank: S1S3

hoary bat *Lasiurus cinereus*

Known from montane and riparian woodland in Trans-Pecos, forests and woods in east and central Texas.

Federal Status:	State Status:	SGCN: Y
Endemic: N	Global Rank: G3G4	State Rank: S4

long-tailed weasel *Mustela frenata*

Includes brushlands, fence rows, upland woods and bottomland hardwoods, forest edges & rocky desert scrub. Usually live close to water.

Federal Status:	State Status:	SGCN: Y
Endemic: N	Global Rank: G5	State Rank: S5

Mexican free-tailed bat *Tadarida brasiliensis*

Roosts in buildings in east Texas. Largest maternity roosts are in limestone caves on the Edwards Plateau. Found in all habitats, forest to desert.

Federal Status:	State Status:	SGCN: Y
Endemic: N	Global Rank: G5	State Rank: S5

WILLIAMSON COUNTY

MAMMALS

mink *Neovison vison*

Intimately associated with water; coastal swamps & marshes, wooded riparian zones, edges of lakes. Prefer floodplains.

Federal Status:	State Status:	SGCN: Y
Endemic: N	Global Rank: G5	State Rank: S4

mountain lion *Puma concolor*

Rugged mountains & riparian zones.

Federal Status:	State Status:	SGCN: Y
Endemic: N	Global Rank: G5	State Rank: S2S3

plains spotted skunk *Spilogale putorius interrupta*

Catholic; open fields, prairies, croplands, fence rows, farmyards, forest edges, and woodlands; prefers wooded, brushy areas and tallgrass prairie

Federal Status:	State Status:	SGCN: N
Endemic: N	Global Rank: G4T4	State Rank: S1S3

southern short-tailed shrew *Blarina carolinensis*

Habitat description is not available at this time.

Federal Status:	State Status:	SGCN: Y
Endemic: N	Global Rank: G5	State Rank: S4

swamp rabbit *Sylvilagus aquaticus*

Habitat description is not available at this time.

Federal Status:	State Status:	SGCN: Y
Endemic: N	Global Rank: G5	State Rank: S5

thirteen-lined ground squirrel *Ictidomys tridecemlineatus*

Habitat description is not available at this time.

Federal Status:	State Status:	SGCN: Y
Endemic: N	Global Rank: G5	State Rank: S5

tricolored bat *Perimyotis subflavus*

Forest, woodland and riparian areas are important. Caves are very important to this species.

Federal Status:	State Status:	SGCN: Y
Endemic: N	Global Rank: G2G3	State Rank: S3S4

WILLIAMSON COUNTY

MAMMALS

western hog-nosed skunk *Conepatus leuconotus*

Habitats include woodlands, grasslands & deserts, to 7200 feet, most common in rugged, rocky canyon country; little is known about the habitat of the ssp. telmalestes

Federal Status:	State Status:	SGCN: Y
Endemic: N	Global Rank: G4	State Rank: S4

woodland vole *Microtus pinetorum*

Include grassy marshes, swamp edges, old-field/pine woodland ecotones, tallgrass fields; generally sandy soils.

Federal Status:	State Status:	SGCN: Y
Endemic: N	Global Rank: G5	State Rank: S3

MOLLUSKS

false spike mussel *Fusconaia mitchelli*

Possibly extirpated in Texas; probably medium to large rivers; substrates varying from mud through mixtures of sand, gravel and cobble; one study indicated water lilies were present at the site; Rio Grande, Brazos, Colorado, and Guadalupe (historic) river basins

Federal Status:	State Status: T	SGCN: Y
Endemic: N	Global Rank: G1	State Rank: S1

smooth pimpleback *Quadrula houstonensis*

Small to moderate streams and rivers as well as moderate size reservoirs; mixed mud, sand, and fine gravel, tolerates very slow to moderate flow rates, appears not to tolerate dramatic water level fluctuations, scoured bedrock substrates, or shifting sand bottoms, lower Trinity (questionable), Brazos, and Colorado River basins

Federal Status: C	State Status: T	SGCN: Y
Endemic: Y	Global Rank: G2	State Rank: S1S2

Texas fawnsfoot *Truncilla macrodon*

Little known; possibly rivers and larger streams, and intolerant of impoundment; flowing rice irrigation canals, possibly sand, gravel, and perhaps sandy-mud bottoms in moderate flows; Brazos and Colorado River basins

Federal Status: C	State Status: T	SGCN: Y
Endemic: Y	Global Rank: G2Q	State Rank: S1

REPTILES

American alligator *Alligator mississippiensis*

Coastal marshes; inland natural rivers, swamps and marshes; manmade impoundments.

Federal Status:	State Status:	SGCN: N
Endemic: N	Global Rank: G5	State Rank: S4

WILLIAMSON COUNTY

REPTILES

common garter snake *Thamnophis sirtalis*

Irrigation canals and riparian-corridor farmlands in west; marshy, flooded pastureland, grassy or brushy borders of permanent bodies of water; coastal salt marshes.

Federal Status:	State Status:	SGCN: N
Endemic:	Global Rank: G5	State Rank: S2

eastern box turtle *Terrapene carolina*

Eastern box turtles inhabit forests, fields, forest-brush, and forest-field ecotones. In some areas they move seasonally from fields in spring to forest in summer. They commonly enters pools of shallow water in summer. For shelter, they burrow into loose soil, debris, mud, old stump holes, or under leaf litter. They can successfully hibernate in sites that may experience subfreezing temperatures. In Maryland bottomland forest, some hibernated in pits or depressions in forest floor (usually about 30 cm deep) usually within summer range; individuals tended to hibernate in same area in different years (Stickel 1989). Also attracted to farms, old fields and cut-over woodlands, as well as creek bottoms and dense woodlands. Egg laying sites often are sandy or loamy soils in open areas; females may move from bottomlands to warmer and drier sites to nest. In Maryland, females used the same nesting area in different years (Stickel 1989).

Federal Status:	State Status:	SGCN: Y
Endemic: N	Global Rank: G5	State Rank: S3

slender glass lizard *Ophisaurus attenuatus*

Prefers relatively dry microhabitats, usually associated with grassy areas. Habitats include open grassland, prairie, woodland edge, open woodland, oak savannas, longleaf pine flatwoods, scrubby areas, fallow fields, and areas near streams and ponds, often in habitats with sandy soil. This species often appears on roads in spring. During inactivity, it occurs in underground burrows. In Kansas, slender glass lizards were scarce in heavily grazed pastures, increased as grass increased with removal of grazing, and declined as brush and trees replaced grass (Fitch 1989). Eggs are laid underground, under cover, or under grass clumps (Ashton and Ashton 1985); in cavities beneath flat rocks or in abandoned tunnels of small mammals (Scalopus, Microtus) (Fitch 1989).

Federal Status:	State Status:	SGCN: Y
Endemic: N	Global Rank: G5	State Rank: S3

Texas garter snake *Thamnophis sirtalis annectens*

Irrigation canals and riparian-corridor farmlands in west; marshy, flooded pastureland, grassy or brushy borders of permanent bodies of water; coastal salt marshes. Wet or moist microhabitats are conducive to the species occurrence, but is not necessarily restricted to them; hibernates underground or in or under surface cover; breeds March-August.

Federal Status:	State Status:	SGCN: Y
Endemic: Y	Global Rank: G5T4	State Rank: S1

Texas horned lizard *Phrynosoma cornutum*

Occurs to 6000 feet, but largely limited below the pinyon-juniper zone on mountains in the Big Bend area. Open, arid and semi-arid regions with sparse vegetation, including grass, cactus, scattered brush or scrubby trees; soil may vary in texture from sandy to rocky; burrows into soil, enters rodent burrows, or hides under rock when inactive; breeds March-September.

Federal Status:	State Status: T	SGCN: Y
Endemic: N	Global Rank: G4G5	State Rank: S3

timber (canebrake) rattlesnake *Crotalus horridus*

Swamps, floodplains, upland pine and deciduous woodland, riparian zones, abandoned farmland. Limestone bluffs, sandy soil or black clay. Prefers dense ground cover, i.e. grapevines, palmetto.

WILLIAMSON COUNTY

REPTILES

Federal Status: | State Status: T | SGCN: Y
Endemic: N | Global Rank: G4 | State Rank: S4

western box turtle *Terrapene ornata*

Ornate or western box trutles inhabit prairie grassland, pasture, fields, sandhills, and open woodland. They are essentially terrestrial but sometimes enter slow, shallow streams and creek pools. For shelter, they burrow into soil (e.g., under plants such as yucca) (Converse et al. 2002) or enter burrows made by other species; winter burrow depth was 0.5-1.8 meters in Wisconsin (Doroff and Keith 1990), 7-120 cm (average depth 54 cm) in Nebraska (Converse et al. 2002). Eggs are laid in nests dug in soft well-drained soil in open area (Legler 1960, Converse et al. 2002). Very partial to sandy soil.

Federal Status: | State Status: | SGCN: Y
Endemic: N | Global Rank: G5 | State Rank: S3

PLANTS

bigflower cornsalad *Valerianella stenocarpa*

Usually along creekbeds or in vernally moist grassy open areas (Carr 2015).

Federal Status: | State Status: | SGCN: Y
Endemic: Y | Global Rank: G3 | State Rank: S3

Elmendorf's onion *Allium elmendorfii*

Grassland openings in oak woodlands on deep, loose, well-drained sands; in Coastal Bend, on Pleistocene barrier island ridges and Holocene Sand Sheet that support live oak woodlands; to the north it occurs in post oak-black hickory-live oak woodlands over Queen City and similar Eocene formations; one anomalous specimen found on Llano Uplift in wet pockets of granitic loam; Perennial; Flowering March-April, May

Federal Status: | State Status: | SGCN: Y
Endemic: Y | Global Rank: G2 | State Rank: S2

gravelbar brickellbush *Brickellia dentata*

Essentially restricted to frequently-scoured gravelly alluvial beds in creek and river bottoms; Perennial; Flowering June-Nov; Fruiting June-Oct

Federal Status: | State Status: | SGCN: Y
Endemic: Y | Global Rank: G3G4 | State Rank: S3S4

Heller's marbleseed *Onosmodium helleri*

Occurs in loamy calcareous soils in oak-juniper woodlands on rocky limestone slopes, often in more mesic portions of canyons; Perennial; Flowering March-May

Federal Status: | State Status: | SGCN: Y
Endemic: Y | Global Rank: G3 | State Rank: S3

WILLIAMSON COUNTY

PLANTS

Plateau loosestrife *Lythrum ovalifolium*

Banks and gravelly beds of perennial (or strong intermittent) streams on the Edwards Plateau, Llano Uplift and Lampasas Cutplain; Perennial; Flowering/Fruiting April-Nov

Federal Status:	State Status:	SGCN: Y
Endemic: N	Global Rank: G3G4	State Rank: S3S4

plateau milkvine *Matelea edwardsensis*

Occurs in various types of juniper-oak and oak-juniper woodlands; Perennial; Flowering March-Oct; Fruiting May-June

Federal Status:	State Status:	SGCN: Y
Endemic: Y	Global Rank: G3	State Rank: S3

Texas almond *Prunus minutiflora*

Wide-ranging but scarce, in a variety of grassland and shrubland situations, mostly on calcareous soils underlain by limestone but occasionally in sandier neutral soils underlain by granite; Perennial; Flowering Feb-May and Oct; Fruiting Feb-Sept

Federal Status:	State Status:	SGCN: Y
Endemic: Y	Global Rank: G3G4	State Rank: S3S4

Texas claret-cup cactus *Echinocereus coccineus var. paucispinus*

Habitat description is not available at this time.

Federal Status:	State Status:	SGCN: Y
Endemic: N	Global Rank: G5T3	State Rank: S3

Wright's milkvetch *Astragalus wrightii*

Habitat description is not available at this time.

Federal Status:	State Status:	SGCN: Y
Endemic: Y	Global Rank: G3	State Rank: S3

TEXAS BLACKLAND PRAIRIES SPECIES OF GREATEST CONSERVATION NEED

Scientific Name	Common Name	Status		Abundance Ranking		General Habitat Type(s) in Texas These are VERY broad habitat types as a starting place
		Federal	State	Global	State	
MAMMALS						
Blarina hylophaga plumblea	Elliot's short-tailed shrew			G5T1Q	S1	Savanna/Open Woodland
Geomys attwateri	Attwater's pocket gopher			G4	S4	Shrubland
Lutra canadensis	River otter			G5	S4	Riparian
Mustela frenata	Long-tailed weasel			G5	S5	Forest, Woodland, Desert Scrub, Shrubland, Savanna/Open Woodland
Myotis austroriparius	Southeastern myotis			G3G4	S3	Caves/Karst, Forest, Riparian
Myotis velifer	Cave myotis			G5	S4	Caves/Karst,
Puma concolor	Mountain lion			G5	S2	Forest, Woodland, Desert Scrub, Shrubland, Savanna/Open Woodland, Riparian
Spilogale putorius	Eastern spotted skunk			G4T	S4	Savanna/Open Woodland, Grassland
Sylvilagus aquaticus	Swamp rabbit			G5	S5	Riparian, Freshwater Wetland
Tadarida brasiliensis	Brazilian free-tailed bat			G5	S5	Cave/Karst, Artificial Refugia
Taxidea taxus	American badger			G5	S5	Grassland, Desert scrub, Woodland, Savanna/Open Woodland, Forest
Ursus americanus	Black bear	SAT	T	G5	S3	Forest, Woodland, Savanna/Open Woodland, Desert Scrub, Shrubland
BIRDS						
Anas acuta	Northern Pintail			G5	S3B,S5N	Lacustrine, freshwater wetland, saltwater wetland, coastal, marine
Colinus virginianus	Northern Bobwhite			G5	S4B	Grassland, Shrubland, Savanna/Open Woodland
Tympanuchus cupido	Greater Prairie-Chicken (Interior)			G4	S1B	Grassland
Meleagris gallopavo	Wild Turkey			G5	S5B	Shrubland, Savanna/Open Woodland, Forest, Riparian, Agricultural
Ixobrychus exilis	Least Bittern			G5	S4B	Lacustrine, Freshwater Wetland, Saltwater Wetland, Estuary
Egretta thula	Snowy Egret			G5	S5B	Riparian, Riverine, Lacustrine, Freshwater Wetland, Saltwater Wetland, Estuary, Coastal, Cultural Aquatic
Egretta caerulea	Little Blue Heron			G5	S5B	Riparian, Riverine, Lacustrine, Freshwater Wetland, Saltwater Wetland, Estuary, Coastal, Cultural Aquatic
Butorides virescens	Green Heron			G5	S5B	Riparian, Riverine, Lacustrine, Freshwater Wetland, Cultural Aquatic
Mycteria americana	Wood Stork		T	G4	SHB,S2N	Riverine, Freshwater wetland
Ictinia mississippiensis	Mississippi Kite			G5	S4B	Woodland, Forest, Riparian, Developed:Urban/Suburban/Rural
Haliaeetus leucocephalus	Bald Eagle			G5	S3B,S3N	Riparian, Lacustrine, Freshwater Wetland, Saltwater Wetland
Circus cyaneus	Northern Harrier			G5	S2B,S3N	Grassland, Shrubland
Buteo lineatus	Red-shouldered Hawk			G5	S4B	Woodland, Forest, Riparian, Freshwater Wetland
Pluvialis dominica	American Golden-Plover			G5	S3	Grassland, Freshwater Wetland, Agricultural
Charadrius montanus	Mountain Plover	PT		G3	S2	Agricultural, Grassland
Scolopax minor	American Woodcock			G5	S2B,S3N	Woodland, Forest, Riparian
Sternula antillarum	Least Tern	LE*	E*	G4	S3B	Riverine, Lacustrine, Freshwater Wetland, Saltwater Wetland, Estuary, Coastal, Marine, Developed: Industrial
Asio flammeus	Short-eared Owl			G5	S4N	Grassland, Shrubland, Agricultural
Caprimulgus carolinensis	Chuck-will's-widow			G5	S3S4B	Woodland, Forest, Riparian
Melanerpes erythrocephalus	Red-headed Woodpecker			G5	S3B	Savanna/Open Woodland, Woodland, Forest, Riparian, Developed: Urban/Suburban/Rural
Dryocopus pileatus	Pileated Woodpecker			G5	S4B	Savanna/Open Woodland, Woodland, Forest, Riparian, Developed: Urban/Suburban/Rural
Tyrannus forficatus	Scissor-tailed Flycatcher			G5	S3B	Desert Scrub, Grassland, Shrubland, Agricultural, Developed
Lanius ludovicianus	Loggerhead Shrike			G4	S4B	Desert Scrub, Grassland, Shrubland, Savanna/Open Woodland, Agricultural, Developed
Vireo bellii	Bell's Vireo			G5	S3B	Desert scrub, Shrubland, Riparian

Scientific Name	Common Name	Status		Abundance Ranking		General Habitat Type(s) in Texas These are VERY broad habitat types as a starting place
		Federal	State	Global	State	
Poecile carolinensis	Carolina Chickadee			G5	S5B	Woodland, Forest, Riparian, Developed: Urban/Suburban/Rural
Thryomanes bewickii (bewickii)	Bewick's Wren			G5	S5B	Shrubland, Savanna/Open Woodland, Woodland, Developed: Urban/Suburban/Rural
Cistothorus platensis	Sedge Wren			G5	S4	Grassland, Freshwater Wetland
Hylocichla mustelina	Wood Thrush			G5	S4B	Woodland, Forest, Riparian
Anthus spragueii	Sprague's Pipit	C		G4	S3N	Barren/Sparse Vegetation, Grassland, Shrubland, Agricultural
Dendroica dominica	Yellow-throated Warbler			G5	S4B	Woodland, Forest, Riparian
Protonotaria citrea	Prothonotary Warbler			G5	S3B	Woodland, Forest, Riparian, Lacustrine, Freshwater Wetland
Limnothlypis swainsonii	Swainson's Warbler			G4	S3B	Woodland, Forest, Riparian
Seiurus motacilla	Louisiana Waterthrush			G5	S3B	Woodland, Forest, Riparian
Oporornis formosus	Kentucky Warbler			G5	S3B	Woodland, Forest
Spizella pusilla	Field Sparrow			G5	S5B	Grassland, Shrubland, Savanna/Open Woodland
Ammodramus savannarum	Grasshopper Sparrow			G5	S3B	Grassland, Agricultural
Chondestes grammacus	Lark Sparrow			G5	S4B	Grassland, Shrubland, Savanna/Open Woodland
Ammodramus henslowii	Henslow's Sparrow			G4	S2S3N,SXB	Grassland, Savanna/Open Woodland
Ammodramus leconteii	Le Conte's Sparrow					Grassland
Zonotrichia querula	Harris's Sparrow			G5	S4	Shrubland, Agricultural
Calcarius mccownii	McCown's Longspur			G4	S4	Grassland, Agricultural
Calcarius pictus	Smith's Longspur					Grassland, Agricultural
Piranga rubra	Summer Tanager			G5	S5B	Savanna/Open Woodland, Woodland, Forest, Riparian, Developed: Urban/Suburban/Rural
Passerina ciris	Painted Bunting			G5	S4B	Shrubland, Agricultural
Spiza americana	Dickcissel			G5	S4B	Grassland, Agricultural
Sturnella magna	Eastern Meadowlark			G5	S5B	Grassland, Shrubland, Savanna/Open Woodland
Euphagus carolinus	Rusty Blackbird			G4	S3	Woodland, Forest, Riparian, Lacustrine, Freshwater Wetland
Icterus spurius	Orchard Oriole			G5	S4B	Shrubland, Savanna/Open Woodland, Woodland, Riparian
REPTILES AND AMPHIBIANS						
Anaxyrus (Bufo) woodhousii	Woodhouse's toad			G5	SU	woodland, forest, freshwater wetland
Apalone mutica	smooth softshell turtle					riparian, riverine, lacustrine, freshwater wetland
Apalone spinifera	spiny softshell turtle					riparian, riverine, lacustrine, freshwater wetland
Cheylydra serpentina	Common snapping turtle					riparina, riverine
Crotalus atrox	Western diamondback rattlesnake				S4	barren/sparse vegetation, desert scrub, grassland, shrubland, savanna, woodland, caves/karst
Crotalus horridus	Timber (Canebrake) Rattlesnake		T	G4	S4	woodland, forest, riparian
Graptemys caglei	Cagle's map turtle		T	G3	S1	riparian, riverine
Graptemys versa	Texas map turtle			G4	SU	riparian, riverine
Heterodon nasicus	Western hognosed snake					desert scrub, grassland, shrubland
Macrochelys temminckii	alligator snapping turtle		T	G3G4	S3	riparian, riverine, cultural aquatic
Ophisaurus attenuatus	western slender glass lizard					grassland, savanna
Phrynosoma cornutum	Texas horned lizard		T	G4G5	S4	desert scrub, grassland, savanna
Pseudacris streckeri	Strecker's Chorus Frog			G5	S3	grassland, savanna, woodland, riparian, cultural aquatic, freshwater wetland
Sistrurus catenatus	massasauga					grassland, barren/sparse vegetation, shrubland, coastal,
Terrapene carolina	Eastern box turtle			G5	S3	grasslands, savanna, woodland
Terrapene ornata	Ornate box turtle			G5	S3	grassland, barren/sparse vegetation, deset scrub, savanna, woodland
Thamnophis sirtalis annectans	Texas Garter Snake (Eastern/Texas/ New Mexico)			G5	S2	riparian, around lacustrine and cultural aquatic sites
Trachemys scripta	Red-eared slider					riparian, riverine, lacustrine, freshwater wetland, cultural aquatic
FRESHWATER FISHES						

Scientific Name	Common Name	Status		Abundance Ranking		General Habitat Type(s) in Texas These are VERY broad habitat types as a starting place
		Federal	State	Global	State	
Anguilla rostrata	American eel			G4	S5	streams and reservoirs in drainages connected to marine environments
Atractosteus spatula	alligator gar					channel snag, pool-snag complex, pool-edge, and pool-vegetation habitat
Cycleptus elongatus	Blue sucker		T	G3G4	S3	large, deep rivers, and deeper zones of lakes
Etheostoma fonticola	Fountain darter	LE	E	G1	S1	usually in dense beds of *Vallisneria, Elodia, Ludwigia* and other aquatic plants; substrate normally mucky
Macryhbopsis storeriana	Silver chub					over silt or mud, turbid water with very soft sand/silt substrate
Micropterus treculii	Guadalupe bass			G3	S3	small lentic environments; commonly taken in flowing water
Notropis atrocaudalis	Blackspot shiner					backwater and swiftest currents
Notropis bairdi	Red River shiner					streambeds with widely fluctuating flows subject to high summer temperatures, high rates of evaporation, and
Notropis buccula	Small eye shiner	C		G2Q	S2	condition tolerances (turbidity, salinity, oxygen).
Notropis chalybaeus	Ironcolor shiner					Plain streams and rivers of low to moderate gradient; often at the upstream ends of pools, with a moderate to
Notropis oxyrhynchus	Sharpnose shiner	C		G3	S3	Moderate current velocities and depths, sand bottom
Notropis potteri	Chub shiner		T	G4	S3	turbid, flowing water with silt or sand substrate; tolerant of high salinities
Notropis shumardi	Silverband shiner					channel with moderate to swift current velocities and moderate to deep depths; associated with turbid water
Percina apristis	Guadalupe darter					collections from the clearest waters tributary to the Guadalupe, namely spring heads and the main river west
Polyodon spathula	Paddlefish		T	G4	S3	rivers, sluggish pools, backwaters, bayous, and oxbows with abundant zooplankton; large reservoirs if
Satan eurystomus	Widemouth blindcat		T	G1	S1	Karst: Subterranean waters
Trogloglanis pattersoni	Toothless blindcat		T	G1	S1	Karst: Subterranean waters
INVERTEBRATES						
Bombus pensylvanicus	American bumblebee			GU	SU*	Grassland, Savanna/Open Woodland
Chimarra holzenthali	Holzenthal's Philopotamid caddisfly			G1G2	S1	Riparian, Riverine
Cotinis boylei	A scarab beetle			G2*	S2*	Grassland, Shrubland, Woodland
Nicrophorus americanus	American Burying Beetle	LE		G1	S1	Grassland, Savanna/Open Woodland
Potamilus amphichaenus	Texas heelsplitter		T	G1G2	S1	Riverine
Procambarus regalis	Regal burrowing crayfish			G2G3	S2?*	Freshwater Wetland, Grassland
Procambarus steigmani	Parkhill prairie crayfish			G1G2	S1S2*	Freshwater Wetland, Grassland
Pseudocentroptiloides morihari	A mayfly			G2G3	S2?*	Riverine, Riparian
Sphinx eremitoides	Sage sphinx			G1G2	S1?*	Grassland
Susperatus tonkawa	A mayfly			G1	S1*	Riparian, Riverine
PLANTS						
Agalinis densiflora	Osage Plains false foxglove			G3	S2	Savanna/Open Woodland - Outcrops
Astragalus reflexus	Texas milk vetch			G3	S3	Savanna/Open Woodland
Calopogon oklahomensis	Oklahoma grass pink			G3	S1S2	Savanna/Open Woodland; Grassland; Freshwater Wetland
Carex edwardsiana	canyon sedge			G3G4S3S4	S3S4	Woodland (slopes above Riparian)
Carex shinnersii	Shinner's sedge			G3?	S2	Grassland
Crataegus dallasiana	Dallas hawthorn			G3Q	S3	Riparian (creeks in the Blackland Prairie)
Cuscuta exaltata	tree dodder			G3	S3	Woodland
Dalea hallii	Hall's prairie-clover			G3	S3	Savanna/Open Woodland; Grassland
Echinacea atrorubens	Topeka purple-coneflower			G3	S3	Savanna/Open Woodland
Hexalectris nitida	Glass Mountains coral-root			G3	S3	Woodland
Hexalectris warnockii	Warnock's coral-root			G2G3	S2	Woodland
Hymenoxys pygmea	Pygmy prairie dawn			G1	S1	Barren/Sparse Vegetation with Grassland matrix (saline prairie)
Liatris glandulosa	glandular gay-feather			G3	S3	Savanna/Open Woodland
Paronychia setacea	bristle nailwort			G3	S3	Savanna/Open Woodland
Phlox oklahomensis	Oklahoma phlox			G3	SH	Savanna/Open Woodland

Scientific Name	Common Name	Status		Abundance Ranking		General Habitat Type(s) in Texas These are VERY broad habitat types as a starting place
		Federal	State	Global	State	
Physaria engelmannii	Engelmann's bladderpod			G3	S3	Savanna/Open Woodland
Polygonella parksii	Parks' jointweed			G2	S2	Savanna/Open Woodland (sandhills); Grassland
Prunus texana	Texas peachbush			G3G4	S3S4	Savanna/Open Woodland; Grassland
Thalictrum texanum	Texas meadow-rue			G2	S2	Savanna/Open Woodland; Riparian (bottomland forest)
Zizania texana	Texas wild rice	LE	E	G1	S1	Riverine (spring-fed, clear, thermally constant, moderate current, sand to gravel substrate)

Federally and State-Listed Species and Species of Greatest Conservation Need of Potential Occurrence in Williamson County, and Potential Effects/Impacts as a Result of the Kenney Fort Blvd Project

Common Name	Scientific Name	Federal Status	State Status	Description of Habitat	Potential for Habitat to Occur in Project Area	Effect/ Impact
Arachnids						
Bone Cave harvestman	*Texella reyesi*	E	SGCN	Small, blind, cave-adapted harvestman endemic to several caves in Travis and Williamson counties; weakly differentiated from *Texella reddelli*.	No. The project action area is located within Karst Zone 4 and therefore does not contain caves.	No effect / No impact
Tooth Cave spider	*Neoleptoneta myopica*	E	--	Very small, cave-adapted, sedentary spider.	No. The project action area is located within Karst Zone 4 and therefore does not contain caves.	No effect
Reddell harvestman	*Texella reddelli*	E	SGCN	Small, blind, cave-adapted harvestman endemic to a few caves in Travis and Williamson counties.	No. The project action area is located within Karst Zone 4 and therefore does not contain caves.	No effect / No impact
Amphibians						
Southern Crawfish Frog	*Lithobates areolatus areolatus*	--	SGCN	Can be found in abandoned crawfish holes and small mammal burrows. This species inhabits moist meadows, pasturelands, pine scrub, and river floodplains. This species spends nearly all of its time in burrows and only leaves the burrow area to breed. Habitat includes shallow waters, herbaceous wetland, riparian, temporary pool, cropland/hedgerow, grassland/herbaceous, suburban/orchard, woodland – conifer.	Yes. Habitat for this species is present within the project area.	May impact

Common Name	Scientific Name	Federal Status	State Status	Description of Habitat	Potential for Habitat to Occur in Project Area	Effect/ Impact
Barton Springs Salamander	*Eurycea sosorum*	E	E	Dependent upon water flow/quality from the Barton Springs pool of the Edwards Aquifer; known from the outlets of Barton Springs and subterranean water-filled caverns; found under rocks, in gravel, or among aquatic vascular plants and algae, as available; feeds primarily on amphipods.	No. The project action area does not contain water from Barton Springs pool or from Barton Springs.	No effect / No impact
Georgetown salamander	*Eurycea naufragia*	T	SGCN	Endemic; known from springs and waters in and around the town of Georgetown in Williamson County.	No. No springs are present within the project action area.	No effect / No impact
Houston toad	*Anaxyrus houstonensis*	E	E	Primary habitat is sandy soil which supports populations of Pinus taeda, water in pools, ephemeral pools, stock tanks; breeds in spring especially after rains; burrows in soil of adjacent uplands when inactive; breeds February-June; associated with soils of the Sparta, Carrizo, Goliad, Queen City, Recklaw, Weches, and Willis geologic formations.	No. No sandy soil supporting Pinus taeda populations are present within the project action area.	No effect / No impact
Salado Springs salamander	*Eurycea chisholmensis*	T	SGCN	Endemic; surface springs and subterranean waters of the Salado Springs system along Salado Creek.	No. No springs are present within the project area. Salado Creek does not flow near the project action area.	No effect / No impact
Jollyville Plateau salamander	*Eurycea tonkawae*	T	SGCN	Known from springs and waters of some caves north of the Colorado River.	No. No springs were present within the project action area; however, critical habitat is located within 1.5 miles of the project area. See attached Jollyville_Salamander_Memo.pdf for further details.	No effect / No impact

Common Name	Scientific Name	Federal Status	State Status	Description of Habitat	Potential for Habitat to Occur in Project Area	Effect/ Impact
Strecker's chorus frog	*Pseudacris streckeri*	--	SGCN	Wooded floodplains and flats, prairies, cultivated fields and marshes. Likes sandy substrates.	Yes. Woody floodplains are within and immediately adjacent to the project area.	May impact
Texas salamander	*Eurycea neotenes*	--	SGCN	Troglobitic; springs, seeps, cave streams, and creek headwaters; often hides under rocks and leaves in water; restricted to Helotes and Leon Creek drainages.	No. The project area does not contain springs, seeps, cave streams, or creek headwaters. In addition, the project area is not located within the Helotes or Leon Creek drainages.	No impact
Woodhouse's toad	*Anaxyrus woodhousii*	--	SGCN	Extremely catholic up to 5000 feet, does very well (except for traffic) in association with man.	Yes. Suitable habitat near man within minimal traffic is present for this species.	May impact
Birds						
Bald Eagle	*Haliaeetus leucocephalus*	--	T	Found primarily near rivers and large lakes; nests in tall trees or on cliffs near water.	No. The project area does not contain any large lakes, tall trees, or cliffs.	No impact
Black Rail	*Laterallus jamaicensis*	PT	SGCN	Salt, brackish, and freshwater marshes, pond borders, wet meadows, and grassy swamps; nests in or along edge of marsh, sometimes on damp ground, but usually on mat of previous years dead grasses; nest usually hidden in marsh grass or at base of Salicornia.	No. No marshes, wet meadows, grassy swamps, or suitable vegetation along ponds are present within the project area.	No effect / No impact
Golden-cheeked Warbler	*Dendroica chrysoparia*	E	E	Required juniper-oak woodlands; dependent on Ashe juniper (aka cedar) for long, fine bark strips only available from mature trees, used in nest construction; nests in a variety of trees and only requires a few mature junipers for nesting materials.	No. Portions of the project action area do contain mature juniper-oak woodlands, but patch sizes are not large enough to support breeding population.	No effect / No impact

Common Name	Scientific Name	Federal Status	State Status	Description of Habitat	Potential for Habitat to Occur in Project Area	Effect/ Impact
Black-capped Vireo	*Vireo atricapilla*	--	E	Oak-juniper woodlands with distinctive patchy, two-layered aspect; shrub and tree layer with open, grassy spaces; requires foliage reaching to ground level for nesting cover; return to same territory, or one nearby, year after year; deciduous and broad-leaved shrubs and trees provide insects for feeding; species composition less important than presence of adequate broad-leaved shrubs, foliage to ground level, and required structure; nesting season March-late summer.	No. Portions of the project area do contain mature juniper-oak woodlands, but patch sizes are not large enough to support breeding population.	No impact
Wood Stork	*Mycteria americana*	--	T	Prefers to nest in large tracts of baldcypress (Taxodium distichum) or red mangrove (Rhizophora mangle); forages in prairie ponds, flooded pastures or fields, ditches, and other shallow standing water, including salt-water; usually roosts communally in tall snags, sometimes in association with other wading birds (i.e. active heronries); breeds in Mexico and birds move into Gulf States in search of mud flats and other wetlands, even those associated with forested areas; formerly nested in Texas, but no breeding records since 1960.	No. No prairie ponds, bald cypress or red mangrove tracts, flooded pastures, or other bodies of standing water are present within the project area.	No impact
Western Burrowing Owl	*Athene cunicularia hypugaea*	--	SGCN	Open grasslands, especially prairie, plains, and savanna, sometimes in open areas such as vacant lots near human habitation or airports; nests and roosts in abandoned burrows.	Yes. Open grasslands near human habituation and abandoned burrows are present within the project area.	May impact

Common Name	Scientific Name	Federal Status	State Status	Description of Habitat	Potential for Habitat to Occur in Project Area	Effect/ Impact
Whooping Crane	*Grus americana*	E	E	Potential migrant via plains throughout most of the state to the coast; stopover habitat includes lakes, ponds, and marshes away from human disturbance; winters in coastal marshes of Aransas, Calhoun, and Refugio Counties.	No. The project action area does not contain lakes, ponds, marshes, or suitable stop over habitat. Any sightings would be considered incidental during migration.	No effect / No impact
Mountain Plover	*Charadrius montanus*	--	SGCN	Breeding: nests on high plains or shortgrass prairie, on ground in shallow depression; nonbreeding: shortgrass plains and bare, dirt (plowed) fields; primarily insectivorous.	No. Though the project action area does contain patches of prairie habitat, the areas are too fragmented and do not provide adequate nesting and foraging habitat.	No impact
Franklin's Gull	*Leuciophaeus pipixcan*	--	SGCN	Habitat description is not available at this time.	No. The Cornell Lab of Ornithology states that these birds nest in marshes and along inland lakes, and forages on sandy beaches. No suitable nesting or foraging habitat is present within the project area.	No impact
Zone-tailed Hawk	*Buteo albonotatus*	--	SGCN	Arid open country, including open deciduous or pine-oak woodland, mesa or mountain county, often near watercourses, and wooded canyons and tree-lined rivers along middle-slopes of desert mountains; nests in various habitats and sites, ranging from small trees in lower desert, giant cottonwoods in riparian areas, to mature conifers in high mountain regions.	No. No wooded canyons along tree-lined rivers, arid country, mountain county, or mesas are present within the project area.	No impact

Common Name	Scientific Name	Federal Status	State Status	Description of Habitat	Potential for Habitat to Occur in Project Area	Effect/ Impact
Red Knot	*Calidris canutus rufa*	T	SGCN	Red knots migrate long distances in flocks northward through the contiguous United States mainly April-June, southward July-October. The Red Knot prefers the shoreline of coast and bays and also uses mudflats during rare inland encounters. Wintering Range includes- Aransas, Brazoria, Calhoun, Cameron, Chambers, Galveston, Jefferson, Kennedy, Kleberg, Matagorda, Nueces, San Patricio, and Willacy. Habitat: Primarily seacoasts on tidal flats and beaches, herbaceous wetland, and tidal shores.	No. Suitable habitat is not present for this species within the project action area due to the lack of seacoast, tidal flats, and beaches. In addition, USFWS concern only extends to wind related projects.	No effect / No impact
Interior Least Tern	*Sterna antillarum*	E	E	Sand beaches, flats, bays, inlets, lagoons, islands. Subspecies is listed only when inland (more than 50 miles from a coastline); nests along sand and gravel bars within braided streams, rivers; also know to nest on man-made structures (inland beaches, wastewater treatment plants, gravel mines, etc); eats small fish and crustaceans, when breeding forages within a few hundred feet of colony	No. Suitable habitat is not present for this species within the project action area as there is a lack of sand and gravel bars within braided streams and rivers. In addition, USFWS concern only extends to wind related projects.	No effect / No impact
Piping Plover	*Charadrius melodus*	T	T	Piping plovers use wide, flat, open, sandy beaches with very little grass or other vegetation. Nesting territories often include small creeks or wetlands.	No. Suitable habitat is not present for this species within the project action area as no bayside mud or salt flats are present. In addition, USFWS concern only extends to wind related projects.	No effect / No impact

Common Name	Scientific Name	Federal Status	State Status	Description of Habitat	Potential for Habitat to Occur in Project Area	Effect/ Impact
White-faced Ibis	*Plegadis chihi*	--	T	Prefers freshwater marshes, sloughs, and irrigated rice fields, but will attend brackish and saltwater habitats; currently confined to near-coastal rookeries in so-called hog-wallow prairies. Nests in marshes, in low trees, on the ground in bulrushes or reeds, or on floating mats.	No. No freshwater marshes, sloughs, irrigated rice fields, or brackish and saltwater habitats are present within the project area.	No impact
Swallow-tailed Kite	*Elanoides forficatus*	--	T	Lowland forested regions, especially swampy areas, ranging into open woodland; marshes, along rivers, lakes, and ponds; nests high in tall tree in clearing or on forest woodland edge, usually in pine, cypress, or various deciduous trees.	No. No lowland forest areas, swampy areas, or marshes along rivers, lakes, or ponds are present within the project area.	No impact
Insects						
Tooth Cave ground beetle	*Rhadine persephone*	E	SGCN	Resident, small, cave-adapted beetle found in small Edwards Limestone caves in Travis and Williamson counties.	No. The project action area is located within karst Zone 4, therefore no Edwards Limestone caves are present.	No effect / No impact
Coffin Cave mold beetle	*Batrisodes texanus*	E	SGCN	Resident, small, cave-adapted beetle found in small Edwards Limestone caves in Travis and Williamson counties.	No. The project area is located within karst Zone 4, therefore, no Edwards Limestone caves are found within the project action area.	No effect / No impact
A mayfly	*Procloeon distinctum*	--	SGCN	Mayflies distinguished by aquatic larval stage; adult stage generally found in shoreline vegetation.	Yes. Shoreline vegetation is present along the project area.	May impact
Coffin Cave mold beetle	*Batrisodes cryptotexanus*	--	SGCN	Resident, small, cave-adapted beetle found in small Edwards Limestone caves in Travis and Williamson counties.	No. The project area is located within karst Zone 4, therefore, no Edwards Limestone caves are found within the project area.	No impact

Common Name	Scientific Name	Federal Status	State Status	Description of Habitat	Potential for Habitat to Occur in Project Area	Effect/ Impact
Kretschmarr Cave mold beetle	*Texamaurops reddelli*	E	SGCN	Small, cave-adapted beetle found under rocks buried in silt; small, Edwards Limestone caves in of the Jollyville Plateau, a division of the Edwards Plateau.	No. The project action area is located within karst Zone 4, therefore, no Edwards Limestone caves are found within the project action area.	No effect / No impact
A mayfly	*Pseudocentroptiloides morihari*	--	SGCN	Mayflies distinguished by aquatic larval stage; adult stage generally found in shoreline vegetation.	Yes. Aquatic habitat is present within the project area. In addition, an undetermined species of mayfly was observed on a field visit on 11/21/18.	May impact
Fishes						
Guadalupe bass	*Micropterus treculii*	--	SGCN	Endemic to perennial streams of the northern and eastern Edward's Plateau including portions of the Brazos, Colorado, Guadalupe, and San Antonio basins; species have also been found outside of the Edwards Plateau streams in decreased abundance, primarily in the lower Colorado River; two introduced populations have been established in the Nueces River system. A pure population was re-established in a portion of the Blanco River eddies; large individuals found mainly in riffle tail races; usually found in spring-fed streams having clear water and relatively consistent temperatures.	No. No perennial streams are present within the project area.	No impact
Texas shiner	*Notrpis amabilis*	--	SGCN	In Texas, it is found primarily in Edwards Plateau streams from the San Gabriel River in the east to the Pecos River in the west. Typical habitat includes rocky or sandy runs, as well as pools.	No. Further research into this species determined that it is most commonly found in creek headwaters or areas where springs contribute to creeks.	No impact

Common Name	Scientific Name	Federal Status	State Status	Description of Habitat	Potential for Habitat to Occur in Project Area	Effect/ Impact
Mammals						
Cave myotis bat	*Myotis velifer*	--	SGCN	Colonial and cave-dwelling; also roosts in rock crevices, old buildings, carports, under bridges, and even in abandoned Cliff Swallow (*Hirundo pyrrhonota*) nests; roosts in clusters of up to thousands of individuals; hibernates in limestone caves of Edwards Plateau and gypsum cave of Panhandle during winter; opportunistic insectivore.	Yes. The bridge crossing of Dyer Branch at Gattis School Road could provide a potential roost site for this species.	May impact
Long-tailed weasel	*Mustela frenata*	--	SGCN	Includes brushlands, fence rows, upland woods and bottomland hardwoods, forest edges & rocky desert scrub. Usually live close to water.	Yes. Fence rows and upland woods are present within the project area.	May impact
Mexican free-tailed bat	*Tadarida brasiliensis*	--	SGCN	Roosts in buildings in east Texas. Largest maternity roosts are in limestone caves on the Edwards Plateau. Found in all habitats, forest to desert.	Yes. Potential roosting habitat is present for this species within and immediately adjacent to the project area.	May impact
Mink	*Neovison vison*	--	SGCN	Intimately associated with water; coastal swamps & marshes, wooded riparian zones, edges of lakes. Prefer floodplains.	Yes. Wooded riparian zones and floodplains are present within the project area.	May impact
Mountain lion	*Puma concolor*	--	SGCN	Rugged mountains & riparian zones.	No. Though riparian zones are present within the project area, the proximity to humans and urbanization of the area makes it highly unlikely that this species would be present or impacted.	No impact
Southern short-tailed shrew	*Blarina carolinensis*	--	SGCN	Habitat description is not available at this time.	Yes. Further research into this species determined that wooded areas and grassy fields needed for cover and forage habitat are present within the project area.	May impact

Common Name	Scientific Name	Federal Status	State Status	Description of Habitat	Potential for Habitat to Occur in Project Area	Effect/ Impact
American badger	*Taxidea taxus*	--	SGCN	Habitat description is not available at this time.	Yes. Though this species is scarcely known in this location of Texas, prairie habitat is present within the project area.	May impact
Big brown bat	*Eptesicus fuscus*	--	SGCN	Any wooded areas or woodlands except south Texas. Riparian areas in west Texas.	Yes. Wooded areas are present within the project area.	May impact
Big free-tailed bat	*Nyctinomops macrotis*	--	SGCN	Habitat data sparse but records indicate that species prefers to roost in crevices and cracks in high canyon walls, but will use buildings, as well; reproduction data sparse, gives birth to single offspring late June-early July; females gather in nursery colonies; winter habits undetermined, but may hibernate in the Trans-Pecos; opportunistic insectivore.	Yes. This species could potentially roost in the bridge of Dyer Branch over Gattis School Road.	May impact
Eastern red bat	*Lasiurus borealis*	--	SGCN	Found in a variety of habitats in Texas. Usually associated with wooded areas. Found in towns especially during migration.	Yes. Wooded areas are present within the project area.	May impact
Eastern spotted skunk	*Spilogale putorius*	--	SGCN	Catholic; open fields prairies, croplands, fence rows, farmyards, forest edges & woodlands. Prefer wooded, brushy areas & tallgrass prairies. *S.p. ssp. interrupta* found in wooded areas and tallgrass prairies, preferring rocky canyons and outcrops when such sites are available.	Yes. Open field, prairies, fence rows, farmyards, forest edges, and woodlands are present within the project area.	May impact
Hoary bat	*Lasiurus cinereus*	--	SGCN	Known from montane and riparian woodland in Trans-Pecos, forests and woods in east and central Texas.	Yes. Forests and woods are present within the project area.	May impact

Common Name	Scientific Name	Federal Status	State Status	Description of Habitat	Potential for Habitat to Occur in Project Area	Effect/ Impact
Swamp rabbit	*Sylvilagus aquaticus*	--	SGCN	Habitat description is not available at this time.	No. Further research into this species determined that the sufficient swampy/wetland type habitat is not present within the project area.	No impact
Thirteen-lined ground squirrel	*Ictidomys tridecemlineatus*	--	SGCN	Habitat description is not available at this time.	Yes. Further research into this species determined that it commonly inhabits mowed lawns, well-grazed pastures, parks, and roadsides. This habitat is all present within the project area.	May impact
Tricolored bat	*Perimyotis subflavus*	--	SGCN	Forest, woodland and riparian areas are important. Caves are very important to this species.	Yes. Forest, woodland, and riparian areas are present within the project area.	May impact
Western hog-nosed skunk	*Conepatus leuconotus*	--	SGCN	Habitats include woodlands, grasslands & deserts, to 7200 feet, most common in rugged, rocky canyon country; little is known about the habitat of the ssp. *telmalestes.*	Yes. Woodlands and grasslands are present within the project area.	May impact
Woodland vole	*Microtus pinetorum*	--	SGCN	Include grassy marshes, swamp edges, old-field/pine woodland ecotones, tallgrass fields; generally sandy soils.	Yes, tallgrass fields are present within the project area.	May impact
Mollusks						
Smooth pimpleback	*Cyclonaias houstonensis*	C	T	Small to moderate streams and rivers as well as moderate size reservoirs; mixed mud, sand, and fine gravel, tolerates very slow to moderate flow rates, appears not to tolerate dramatic water level fluctuations, scoured bedrock substrates, or shifting sand bottoms, lower Trinity (questionable), Brazos, and Colorado River basins.	No. Dyer Branch is an intermittent stream that is subject to dramatic water level fluctuations.	No effect / No impact

Common Name	Scientific Name	Federal Status	State Status	Description of Habitat	Potential for Habitat to Occur in Project Area	Effect/ Impact
Texas pimpleback	*Quadrula petrina*	C	--	Mud, gravel and sand substrates, generally in areas with slow flow rates; Colorado and Guadalupe river basins.	No. The project action area is not located within the Colorado or Guadalupe river basins.	No effect / No impact
False spike mussel	*Fusconaia mitchelli*	--	T	Possibly extirpated in Texas; probably medium to large rivers; substrates varying from mud through mixtures of sand, gravel and cobble; one study indicated water lilies were present at the site; Rio Grande, Brazos, Colorado, and Guadalupe (historic) river basins.	No. No medium to large rivers are present within the project area.	No impact
Texas fawnsfoot	*Truncilla macrodon*	C	T	Little known; possibly rivers and larger streams, and intolerant of impoundment; flowing rice irrigation canals, possibly sand, gravel, and perhaps sandy-mud bottoms in moderate flows; Brazos and Colorado River basins.	No. No larger rivers or streams are present within the project action area.	No effect / No impact
Reptiles						
Texas garter snake	*Thamnophis sirtalis annectens*	--	SGCN	Wet or moist microhabitats are conducive to the species occurrence but is not necessarily restricted to them; hibernates underground or in or under surface cover; breeds March-August.	Yes. Moist microhabitats are present within the project area throughout the riparian areas.	May impact

Common Name	Scientific Name	Federal Status	State Status	Description of Habitat	Potential for Habitat to Occur in Project Area	Effect/ Impact
Eastern box turtle	*Terrapene carolina*	--	SGCN	Eastern box turtles inhabit forests, fields, forest-brush, and forest-field ecotones. In some areas they move seasonally from fields in spring to forest in summer. They commonly enter pools of shallow water in summer. For shelter, they burrow into loose soil, debris, mud, old stump holes, or under leaf litter. They can successfully hibernate in sites that may experience subfreezing temperatures. In Maryland bottomland forest, some hibernated in pits or depressions in forest floor (usually about 30 cm deep) usually within summer range; individuals tended to hibernate in same area in different years (Stickel 1989). Also attracted to farms, old fields and cut-over woodlands, as well as creek bottoms and dense woodlands. Egg laying sites often are sandy or loamy soils in open areas; females may move from bottomlands to warmer and drier sites to nest. In Maryland, females used the same nesting area in different years (Stickel 1989).	Yes. Fields, forest-brush, and forest-field ecotones are present within the project area.	May impact

Common Name	Scientific Name	Federal Status	State Status	Description of Habitat	Potential for Habitat to Occur in Project Area	Effect/ Impact
Slender glass lizard	*Ophisaurus attenuatus*	--	SGCN	Prefers relatively dry microhabitats, usually associated with grassy areas. Habitats include open grassland, prairie, woodland edge, open woodland, oak savannas, longleaf pine flatwoods, scrubby areas, fallow fields, and areas near streams and ponds, often in habitats with sandy soil. This species often appears on roads in spring. During inactivity, it occurs in underground burrows. In Kansas, slender glass lizards were scarce in heavily grazed pastures, increased as grass increased with removal of grazing, and declined as brush and trees replaced grass (Fitch 1989). Eggs are laid underground, under cover, or under grass clumps (Ashton and Ashton 1985); in cavities beneath flat rocks or in abandoned tunnels of small mammals (*Scalopus*, *Microtus*) (Fitch 1989).	Yes. Open grassland, prairie, woodlands edges, and fallow fields near a stream and pond are present within the project area.	May impact

Common Name	Scientific Name	Federal Status	State Status	Description of Habitat	Potential for Habitat to Occur in Project Area	Effect/ Impact
Western box turtle	*Terrapene ornata*	--	SGCN	Ornate or western box turtles inhabit prairie grassland, pasture, fields, sandhills, and open woodland. They are essentially terrestrial but sometimes enter slow, shallow streams and creek pools. For shelter, they burrow into soil (e.g., under plants such as yucca) (Converse et al. 2002) or enter burrows made by other species; winter burrow depth was 0.5-1.8 meters in Wisconsin (Doroff and Keith 1990), 7-120 cm (average depth 54 cm) in Nebraska (Converse et al. 2002). Eggs are laid in nests dug in soft well-drained soil in open area (Legler 1960, Converse et al. 2002). Very partial to sandy soil.	Yes. Prairie grasslands, pastures, fields, and woodlands are present within the project area.	May impact
Texas horned lizard	*Phrynosoma cornutum*	--	T	Open, arid, and semi-arid regions with sparse vegetation, including grass, cactus, scattered brush or scrubby trees; soil may vary in texture from sandy to rocky; burrows in soil, enters rodent burrows, or hides under rocks when inactive.	No. No arid or semi-arid regions are present within the project area.	No impact
Timber (canebrake) rattlesnake	*Crotalus horridus*	--	T	Swamps, floodplains, upland pine and deciduous woodlands, riparian zones, abandoned farmland; limestone bluffs, sandy soil or black clay; prefers dense ground cover, i.e. grapevines or palmetto	Yes. Floodplain, riparian zones, and deciduous woodlands on black clay are present within the project area.	May impact
Plants						
Bracted twistflower	*Strepthanthus bracteatus*	C	--	Found on rocky hillsides and slopes.	No. No rocky hillsides or slopes are present within the project action area.	No effect

Common Name	Scientific Name	Federal Status	State Status	Description of Habitat	Potential for Habitat to Occur in Project Area	Effect/ Impact
Plateau milkvine	*Matelea edwardsensis*	--	SGCN	Occurs in various types of juniper-oak and oak-juniper woodlands; Perennial; Flowering March-Oct; Fruiting May-June.	Yes. Juniper oak and oak-juniper woodlands are present within the project area.	May impact
Gravelbar brickellbush	*Brickellia dentata*	--	SGCN	Essentially restricted to frequently-scoured gravelly alluvial beds in creek and river bottoms; Perennial; Flowering June-Nov; Fruiting June-Oct.	No. No frequently-scoured gravelly alluvial beds within creek or river bottoms are present within the project area.	No impact
Bigflower cornsalad	*Valerianella stenocarpa*	--	SGCN	Usually along creekbeds or in vernally moist grassy open areas (Carr 2015).	Yes. A creekbed is present within the project area.	May impact
Heller's marbleseed	*Onosmodium helleri*	--	SGCN	Occurs in loamy calcareous soils in oak-juniper woodlands on rocky limestone slopes, often in more mesic portions of canyons; Perennial; Flowering March-May.	No. No rocky limestone slopes with oak-juniper woodlands are present win the project area.	No impact
Plateau loosestrife	*Lythrum ovalifolium*	--	SGCN	Banks and gravelly beds of perennial (or strong intermittent) streams on the Edwards Plateau, Llano Uplift and Lampasas Cutplain; Perennial; Flowering/Fruiting April-Nov.	No. No perennial streams are present within the project area.	No impact
Elmendorf's onion	*Allium elmendorfii*	--	SGCN	Texas endemic; grassland openings in oak woodlands on deep, loose, well-drained sands; in Coastal Bend, on Pleistocene barrier island ridges and Holocene Sand Sheet that support live oak woodlands; to the north it occurs in post oak-black hickory-live oak woodlands over Queen City and similar Eocene formations; one anomalous specimen found on Llano Uplift in wet pockets of granitic loam; flowering March-April, May.	No. No well-drained sandy soils are present within the project area.	No impact

Common Name	Scientific Name	Federal Status	State Status	Description of Habitat	Potential for Habitat to Occur in Project Area	Effect/ Impact
Texas almond	*Prunus minutiflora*	--	SGCN	Wide-ranging but scarce, in a variety of grassland and shrubland situations, mostly on calcareous soils underlain by limestone but occasionally in sandier neutral soils underlain by granite; Perennial; Flowering Feb-May & Oct; Fruiting Feb-Sept.	Yes. Potential habitat exists for this species in the grasslands present within the study area.	May impact

Status: E – Endangered; T – Threatened; C – Candidate; PT – Proposed Threatened (Federal only); SGCN – Species of Greatest Conservation Need (State only). Source: USFWS, October 2019; TPWD, July 7, 2019 (accessed in September 2019).

Photograph 1. Unnamed tributary to Dyer Branch found within the northern project area with adjacent wetland.

Photograph 2. Manmade pond located directly adjacent to project area.

Photograph 3. OHWM of an unnamed Tributary to Dyer Branch identified within project ROW.

Photograph 4. View looking north up state-owned project ROW.

Photograph 5. View looking down at Dyer Branch at the crossing beneath Gattis School Road

Photograph 6. View north of crossing pictured in photo 5 showing riparian and floodplain habitat.

Photograph 7. Juniper-oak woodland and disturbed prairie habitat present within project area.

Photograph 8. Upland prairie and fencerow vegetation present within project area.

Photograph 9. Open pasture adjacent to prairie pictured in photograph 8.

Photograph 10. Deciduous woodland habitat located within project area.

Tier I Site Assessment

Main CSJ: 0914-05-195
Form Prepared By: Melissa Cross (CP&Y, Inc.)

Date of Evaluation: October 17, 2019
Proposed Letting Date: May 2020
District(s): Austin
County(ies): Williamson
Roadway Name: Kenney Fort Boulevard
Limits From: Forest Creek Drive
Limits To: State Highway 45

☐ *Project is classified as a Categorical Exclusion*
☐ *Project not assigned to TxDOT under the NEPA Assignment MOU*

Project Description: Kenney Fort Boulevard (Blvd) is a major arterial roadway in the City of Round Rock's Transportation Master Plan. It was included in the City's first Transportation Master Plan, published in 1994, but has been part of the planning process since 1988. The roadway is being constructed in phases. Phase 1, which extends between Joe DiMaggio Blvd and Forest Creek Drive, was completed during the summer of 2013. The City of Round Rock, in cooperation with the Texas Department of Transportation (TxDOT), now proposes to construct phases 2 and 3 which would extend Kenney Fort Blvd approximately 1.5 miles from its current terminus at Forest Creek Drive south to State Highway (SH) 45.
Kenney Fort Blvd (Segments 2 and 3) would be a 6-lane arterial roadway that will ultimately connect SH 45 to United States Highway (US) 79. The proposed project includes improvements to Gattis School Road in the vicinity of its intersection with Kenney Fort Blvd. The improvements to Gattis School Road would extend from Meister Lane to Rusk Road. The proposed project also includes improvements at the existing SH 45 grade-separation. The project area covers a total area of 35.9 acres, consisting of 12.6 acres of state-owned ROW and 23.3 acres of private lands. In addition, a 0.2-acre permanent easement would be required.

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

   Add Comments

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:

   One state threatened species, the Timber Rattlesnake (Crotalus horridus), and 28 state SGCN species have suitable habitat within the proposed project area. No federally-listed species have potential habitat within the project area. A species-by-species assessment of habitat availability and potential impacts is provided in the attached Species Impact Table. As indicated in the table, none of the species from the USFWS or TPWD lists are expected to be adversely affected by the proposed project, including the 29 species above for which suitable habitat occurs within the project area.

Date TPWD County List Accessed: August 28, 2019

Date that the NDD was accessed: November 13, 2018

What agency performed the NDD search? TPWD

What version of the NDD was used? June 2018

☒ Check this box if you would like to use the built in NDD EOID table.

NDD Search Results for EOIDs and Tracked Managed Areas

EOID Number	Common Name	Scientific Name	Listing Status	Buffer Zone	
11993	Vertisol Blackland Prairie	*S. scoparium, S. Nutans, A. gerardii, B. americana*	Unranked	1.5 Mile	Remove
3598	Little Bluestem-Indiangrass Series	*S. scoparium-S. nutans series*	Imperiled in state	1.5 Mile	Remove
10728	Texas almsond	*Prunus minutiflora*	SGCN	1.5 Mile	Remove
3626	Jollyville Plateau Salamander	*Eurycea tonkawae*	Federally Threatened	1.5 Mile	Remove
10554	Texas almond	*Prunus minutiflora*	SGCN	1.5 Mile	Remove

Add Row

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

Add Comments

4. Yes — NDD and TCAP review indicates adverse impacts to remnant vegetation?

*Explain:

The NDD indicated elemental occurences of Vertisol Blackland Prairie and Little Bluestem-Indiangrass series. These areas were confirmed in the field and would be considered remnant vegetation.

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

*Explain:

Due to anticipated temporary and permanent impacts to jurisdictional waters of the US, including wetlands, a NWP 14 with PCN will be required.

6. Yes — 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:

Yes — Channel realignment; or

Yes — Stream bed or stream bank excavation, scraping, clearing, or other permanent disturbance.

*Explain:

Two crossing within the project area are anticipated to have more than 200 linear feet impacted. These impacts are anticipated to be permitted with an NWP 14 and PCN as well as have a compensatory mitigation plan.

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

Add Comments

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

*Explain:

Approximately 0.82 ac of Riparian MOU habitat is located within the project area and confirmed during field investigations. Work would be completed within these areas identified as Riparian MOU habitat so impacts greater than the 0.1 acre threshold to Riparian vegetation are anticipated as a result of the implementation of the proposed project.

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 area was field verified to contain 14.79 acres of Disturbed Prairie, 6.90 acres of Edwards Plateau Savannah, Woodland, and Shrubland, 0.82 acre of Riparian, and 4.86 acres of Tallgrass Prairie, Grassland, all of which exceed the acreage values in the Threshold Table Programmatic Agreement.

*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:

KFB_EMSTVeg_Summary.xlsx

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

*Explain:

The EMST mapped 13.04 ac of Disturbed Prairie, 6.95 ac of Edwards Plateau Savannah, Woodland, and Shrubland, 1.35 ac of Riparian, 5.48 ac of Tallgrass Prairie, Grassland, and 9.28 ac of Urban habitat types. The site investigation determined that 14.79 ac of Disturbed Prairie, 6.90 ac of Edwards Plateau Savannah, Woodland, and Shrubland, 0.82 ac of Riparian, 4.86 ac of Tallgrass Prairie, Grassland, and 8.72 ac of Urban MOU types were present within the study area.

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

10_KFB_EMSTVeg_Summary.xlsx; see also EMST Map and Field-Verified Vegetation Map

Is TPWD Coordination Required?

Yes

☒ Early Coordination

☐ Administrated Coordination - Must be conducted through ENV-NRM

BMPs Implemented or EPICs included (as necessary):

Pursuant to the TPWD Bird BMPs and Migratory Bird Treaty Act (MBTA) of 1918, the contractor would remove all old migratory bird nests from any structure where work would be done from October 1 to February 15. In addition, the contractor would be prepared to prevent migratory birds from building nest(s) between February 15 and October 1. In the event that migratory birds are encountered on-site during project construction, efforts

to avoid adverse impacts on protected birds, active nests, eggs, and/or young would be observed.

Pursuant to TPWD Vegetation and Invasive Species BMPs and EO 13112 on Invasive Species, seeding and replanting with TxDOT approved seedling specifications that is in compliance with EO 13112 would be done where possible.

Western burrowing owl - Contractors should be instructed not to disturb, destroy, or remove active nests, including ground nesting birds during the nesting season; and to avoid the removal of unoccupied, inactive nests, as practicable; and to prevent the establishment of active nests during the nesting season on TxDOT owned and operated facilities and structures; and to not collect, capture, relocate, or transport birds, eggs, young, or active nests without a permit.

Cave myotis bat and Big free-tailed bat - A habitat assessment of bridges and cave/cliff features by a qualified biologist should be conducted to determine if bats are present. If bats are present, the engineer will take appropriate measure as practicable to ensure that bats are not harmed such as exclusion of bats from the project area or timing activities when bats are not present. If structures or features used by bats are removed as a result of construction, artificial roosts should be constructed to replace these features as practicable. Harm or death to bats will be avoided in all instances. Bats should only be handled as a last resort and after communication with TPWD.

Timber rattlesnake and Texas garter snake - Contractors will be advised of potential occurrence in the project area, and to avoid harming the species if encountered.

Southern crawfish frog - Contractors will be advised of potential occurrence in the project area, and to avoid harming the species if encountered. Impacts to wetland habitats, including isolated ephemeral pools, should be minimized. Water Quality and Amphibian BMPs should be followed.

TxDOT Contact Information

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Next Steps:

1.) Upload the TPWD Analysis Section of this form to the Biology Section of your ECOS project file & attach relevant EMST Excel spreadsheet and photos;

2.) Start appropriate Coordination in ECOS (No, Early, or Administrated Coordination*);

3.) Documentation of the following is required to initiate Early Coordination:

- Project area map,
- TPWD Analysis form (includes Tier I Site Assessment),
- EMST documentation (acreage of impacts),
- NDD EOID results,
- Detailed project description and limits, and

- Any conservation measures or BMPs to be implemented.

4.) Submit the above documents to TPWD at **WHAB_TxDOT@tpwd.texas.gov**

*Administrated Coordination must be initiated through ENV. Please contact your ENV-NRM representative for assistance. ENV-NRM will create and monitor the necessary ECOS coordination task.

Suggested Attachments

Aerial Map (with delineated project boundaries)

USFWS T&E List

TPWD T&E List

Species Impact Table

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)