



# Biological Evaluation Form

**Main CSJ:** 0902-90-077

**Form Prepared By:** Civil Associates, Inc.

**Date of Evaluation:** April 10, 2018

Project has no Federal nexus.

**Proposed Letting Date:** March 2019

Project not assigned to TxDOT under the NEPA Assignment MOU

**District(s):** Fort Worth

**County(ies):** Tarrant

**Roadway Name:** Dallas Road TOD Corridor/Cotton Belt Extension

**Limits From:** Intersection of W. Dallas Road and William D. Tate Avenue

**Limits To:** Existing Links Trail at Texan Trail Roadway

**Project Description:** Please see the following document that has been uploaded into TXECOS: Project Description (0902-90-077).pdf

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: March 14, 2018

No Is the action area of the proposed project in suitable habitat of federally protected species?

\*Explain:

The habitat preferences for federally listed threatened/endangered species, a brief discussion of habitat availability within the project's construction footprint, and an assessment of potential adverse effects on these federally-listed threatened or endangered species are included in the uploaded file: "Biological Evaluation Form and Tier I Site Assessment Form Supporting Documentation (0902-90-077).pdf"

### 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:

Date of site visit: March 14, 2018. The proposed project is located in an urbanized area within the City of Arlington. The project area consist of mowed and maintained vegetation along Dallas Road and mowed,



maintained and fence row vegetation along the DART railroad ROW.

### **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?

### **Bald and Golden Eagle Protection Act (BGEPA)**

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

### **Fish and Wildlife Coordination Act (FWCA)**

- No Does the project have impacts on one or more Waters of the U.S. or wetlands?

### **Executive Order 13112 on Invasive Species**

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

### **Executive Memorandum on Environmentally and Economically Beneficial Landscaping**

- No Would landscaping be included in the proposed projects?

### **Farmland Protection Policy Act (FPPA)**

- No Would the project require new ROW or permanent easements (Do not include temporary easements)?



## General Comments



## Findings

### *Endangered Species Act (ESA)*

No suitable habitat was observed for any federally listed species. Therefore, there would be no effect on federally listed species. However, measures to avoid harm to any threatened and endangered species would be taken should they be observed during construction of the proposed project. Coordination with the USFWS would not be required. The USFWS IPaC website was accessed on March 14, 2018.

### *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 would have no impact to Waters of the U.S. or wetlands and no Section 404 permit is required; therefore, no review by the U.S. Fish and Wildlife Service (USFWS).

### *Executive Order 13112 on Invasive Species (EO 13112)*



## **Biological Evaluation Form**

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 is not part of the proposed project. If revegetation is needed, disturbed areas would be revegetated according to TxDOT's standard practices, which to the extent practicable, complies with Executive Memorandum on Environmentally and Economically Beneficial Landscaping. Direction to contractors is provided on the standard EPIC sheet.

### *Farmland Protection Policy Act (FPPA)*

Coordination with the National Resources Conservation Service for FPPA would not be required because the project requires no additional ROW or permanent easements.



## *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)**



# Tier I Site Assessment

**Main CSJ:** 0902-90-077

**Form Prepared By:** Civil Associates, Inc.

**Date of Evaluation:** April 10, 2018

Project is classified as a Categorical Exclusion

**Proposed Letting Date:** March 2019

Project not assigned to TxDOT under the NEPA Assignment MOU

**District(s):** Fort Worth

**County(ies):** Tarrant

**Roadway Name:** Dallas Road TOD Corridor/Cotton Belt Extension

**Limits From:** Intersection of W. Dallas Road and William D. Tate Avenue

**Limits To:** Existing Links Trail at Texan Trail Roadway

**Project Description:** Please see the following document that has been uploaded into TXECOS: Project Description (0902-90-077).pdf

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 within range of a state threatened or endangered species or SGCN and suitable habitat is present?

Comments:

The habitat preferences for federally listed threatened/endangered species, a brief discussion of habitat availability within the project's construction footprint, and an assessment of potential adverse effects on these federally-listed threatened or endangered species are included in the uploaded file: "Biological Evaluation Form and Tier I Site Assessment Form Supporting Documentation (0902-90-077).pdf"

Date [TPWD County](#) List Accessed:   March 14, 2018  

Date that the NDD was accessed:   March 14, 2018  

What agency performed the NDD search?   TPWD  

## NDD Search Results for EOIDs and Tracked Managed Areas

EOID Number	Common Name	Scientific Name	Listing Status	Buffer Zone
9884	Texas Heelsplitter	<i>Potamilus amphichaenus</i>	State threatened	1.5 Mile

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

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

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



Comments:

There are no Waters of U.S. crossings within the proposed project limits.

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

\*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:

EMST MOU Habitat Summary (0902-90-077).xlsx

- 7.1.   No   Is there a discrepancy between actual habitat(s) and EMST mapped habitat(s)?

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

File Name:

Project Location Map (0902-90-077).pdf  
Project Area Photographs (0902-90-077).pdf

### Is TPWD Coordination Required?

**No** - No coordination is required because no Coordination Conditions or MOU triggers were met.



## *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)**



# United States Department of the Interior



FISH AND WILDLIFE SERVICE  
Arlington Ecological Services Field Office

2005 Ne Green Oaks Blvd

Suite 140

Arlington, TX 76006-6247

Phone: (817) 277-1100 Fax: (817) 277-1129

<http://www.fws.gov/southwest/es/arlingtontexas/>

<http://www.fws.gov/southwest/es/EndangeredSpecies/lists/>

In Reply Refer To:

March 14, 2018

Consultation Code: 02ETAR00-2018-SLI-0700

Event Code: 02ETAR00-2018-E-01590

Project Name: Dallas Road TOD Corridor/Cotton Belt Extension

Subject: 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, which may occur within the boundary of 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.).

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 section 7(a)(1) of the Act, Federal agencies are directed to utilize their authorities to carry out programs for the conservation of threatened and endangered species. Under and 7(a)(2) and its implementing regulations (50 CFR 402 et seq.), Federal agencies are required to determine whether their actions may affect threatened and endangered species and/or designated critical habitat. A Federal action is an activity or program authorized, funded, or carried out, in whole or in part, by a Federal agency (50 CFR 402.02).

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 Federal actions 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.

After evaluating the potential effects of a proposed action on federally listed species, one of the following determinations should be made by the Federal agency:

1. *No effect* - the appropriate determination when a project, as proposed, is anticipated to have no effects to 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, the action agency should maintain a complete record of their evaluation, including the steps leading to the determination of affect, the qualified personnel conducting the evaluation, habitat conditions, site photographs, and any other related information.
2. *May affect, but is not likely to adversely affect* - the appropriate determination when a proposed action's anticipated effects are insignificant, discountable, or completely beneficial. Insignificant effects relate to the size of the impact and should never reach the scale where "take" of a listed species occurs. Discountable effects are those extremely unlikely to occur. Based on best judgment, a person would not be able to meaningfully measure, detect, or evaluate insignificant effects, or expect discountable effects to occur. This determination requires written concurrence from the Service. A biological evaluation or other supporting information justifying this determination should be submitted with a request for written concurrence.
3. *May affect, is likely to adversely affect* - the appropriate determination if any adverse effect to listed species or critical habitat may occur as a direct or indirect result of the proposed action, and the effect is not discountable or insignificant. This determination requires formal section 7 consultation.

The Service recommends that candidate species, proposed species, and proposed critical habitat be addressed should consultation be necessary. 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>

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the 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.

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 (<http://www.fws.gov/windenergy/>)

---

[eagle\\_guidance.html](#)). Additionally, wind energy projects should follow the wind energy guidelines (<http://www.fws.gov/windenergy/>) for minimizing impacts to migratory birds and bats.

Guidance for minimizing impacts to migratory birds for projects including communications towers (e.g., cellular, digital television, radio, and emergency broadcast) can be found at: <http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/towers.htm>; <http://www.towerkill.com>; and <http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/comtow.html>.

For additional information concerning migratory birds and eagle conservation plans, please contact the Service's Migratory Bird Office at 505-248-7882.

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:

**Arlington Ecological Services Field Office**

2005 Ne Green Oaks Blvd

Suite 140

Arlington, TX 76006-6247

(817) 277-1100

---

## Project Summary

Consultation Code: 02ETAR00-2018-SLI-0700

Event Code: 02ETAR00-2018-E-01590

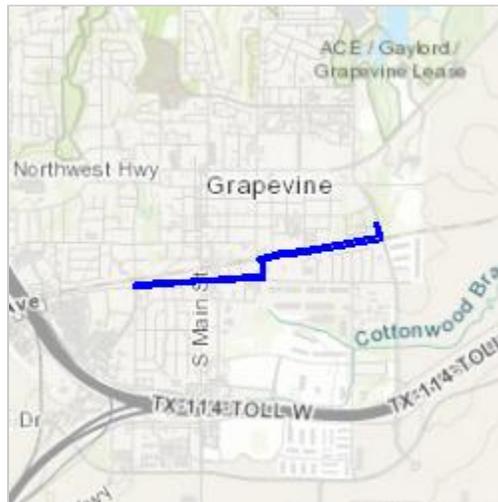
Project Name: Dallas Road TOD Corridor/Cotton Belt Extension

Project Type: TRANSPORTATION

Project Description: CSJ: 0902-90-077

Project Location:

Approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/place/32.93460433934163N97.07138815126225W>



Counties: Tarrant, TX

---

## Endangered Species Act Species

There is a total of 4 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 2 of these species should be considered only under certain conditions. 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.

### Birds

NAME	STATUS
<p>Least Tern <i>Sterna antillarum</i>            Population: interior pop.            No critical habitat has been designated for this species.            Species profile: <a href="https://ecos.fws.gov/ecp/species/8505">https://ecos.fws.gov/ecp/species/8505</a></p>	Endangered
<p>Piping Plover <i>Charadrius melodus</i>            Population: [Atlantic Coast and Northern Great Plains populations] - Wherever found, except those areas where listed as endangered.            There is <b>final</b> critical habitat for this species. Your location is outside the critical habitat.            This species only needs to be considered under the following conditions:           <ul style="list-style-type: none"> <li>▪ Wind Energy Projects</li> </ul>           Species profile: <a href="https://ecos.fws.gov/ecp/species/6039">https://ecos.fws.gov/ecp/species/6039</a></p>	Threatened
<p>Red Knot <i>Calidris canutus rufa</i>            No critical habitat has been designated for this species.            This species only needs to be considered under the following conditions:           <ul style="list-style-type: none"> <li>▪ Wind Energy Projects</li> </ul>           Species profile: <a href="https://ecos.fws.gov/ecp/species/1864">https://ecos.fws.gov/ecp/species/1864</a></p>	Threatened
<p>Whooping Crane <i>Grus americana</i>            Population: Wherever found, except where listed as an experimental population            There is <b>final</b> critical habitat for this species. Your location is outside the critical habitat.            Species profile: <a href="https://ecos.fws.gov/ecp/species/758">https://ecos.fws.gov/ecp/species/758</a></p>	Endangered

### Critical habitats

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

## TARRANT COUNTY

### BIRDS

		Federal Status	State Status
<b>American Peregrine Falcon</b>	<i>Falco peregrinus anatum</i>	DL	T
<p>year-round resident and local breeder in west Texas, nests in tall cliff eyries; also, migrant across state from more northern breeding areas in US and Canada, winters along coast and farther south; occupies wide range of habitats during migration, including urban, concentrations along coast and barrier islands; low-altitude migrant, stopovers at leading landscape edges such as lake shores, coastlines, and barrier islands.</p>			
<b>Arctic Peregrine Falcon</b>	<i>Falco peregrinus tundrius</i>	DL	
<p>migrant throughout state from subspecies' far northern breeding range, winters along coast and farther south; occupies wide range of habitats during migration, including urban, concentrations along coast and barrier islands; low-altitude migrant, stopovers at leading landscape edges such as lake shores, coastlines, and barrier islands.</p>			
<b>Bald Eagle</b>	<i>Haliaeetus leucocephalus</i>	DL	T
<p>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</p>			
<b>Henslow's Sparrow</b>	<i>Ammodramus henslowii</i>		
<p>wintering individuals (not flocks) found in weedy fields or cut-over areas where lots of bunch grasses occur along with vines and brambles; a key component is bare ground for running/walking</p>			
<b>Interior Least Tern</b>	<i>Sterna antillarum athalassos</i>	LE	E
<p>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</p>			
<b>Peregrine Falcon</b>	<i>Falco peregrinus</i>	DL	T
<p>both subspecies migrate across the state from more northern breeding areas in US and Canada to winter along coast and farther south; subspecies (F. p. anatum) is also a resident breeder in west Texas; the two subspecies' listing statuses differ, F.p. tundrius is no longer listed in Texas; but because the subspecies are not easily distinguishable at a distance, reference is generally made only to the species level; see subspecies for habitat.</p>			

## TARRANT COUNTY

### BIRDS

		Federal Status	State Status
<b>Red Knot</b>	<i>Calidris canutus rufa</i>		T

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.

<b>Sprague's Pipit</b>	<i>Anthus spragueii</i>		
------------------------	-------------------------	--	--

only in Texas during migration and winter, mid September to early April; short to medium distance, diurnal migrant; strongly tied to native upland prairie, can be locally common in coastal grasslands, uncommon to rare further west; sensitive to patch size and avoids edges.

<b>Western Burrowing Owl</b>	<i>Athene cunicularia hypugaea</i>		
------------------------------	------------------------------------	--	--

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

<b>Whooping Crane</b>	<i>Grus americana</i>	LE	E
-----------------------	-----------------------	----	---

potential migrant via plains throughout most of state to coast; winters in coastal marshes of Aransas, Calhoun, and Refugio counties

### FISHES

		Federal Status	State Status
<b>Shovelnose sturgeon</b>	<i>Scaphirhynchus platyrhynchus</i>		T

open, flowing channels with bottoms of sand or gravel; spawns over gravel or rocks in an area with a fast current; Red River below reservoir and rare occurrence in Rio Grande

### MAMMALS

		Federal Status	State Status
<b>Gray wolf</b>	<i>Canis lupus</i>	LE	E

extirpated; formerly known throughout the western two-thirds of the state in forests, brushlands, or grasslands

<b>Plains spotted skunk</b>	<i>Spilogale putorius interrupta</i>		
-----------------------------	--------------------------------------	--	--

catholic; open fields, prairies, croplands, fence rows, farmyards, forest edges, and woodlands; prefers wooded, brushy areas and tallgrass prairie

## TARRANT COUNTY

### MAMMALS

		Federal Status	State Status
<b>Red wolf</b>	<i>Canis rufus</i>	LE	E
extirpated; formerly known throughout eastern half of Texas in brushy and forested areas, as well as coastal prairies			

### MOLLUSKS

		Federal Status	State Status
<b>Louisiana pigtoe</b>	<i>Pleurobema riddellii</i>		T
streams and moderate-size rivers, usually flowing water on substrates of mud, sand, and gravel; not generally known from impoundments; Sabine, Neches, and Trinity (historic) River basins			
<b>Sandbank pocketbook</b>	<i>Lampsilis satura</i>		T
small to large rivers with moderate flows and swift current on gravel, gravel-sand, and sand bottoms; east Texas, Sulfur south through San Jacinto River basins; Neches River			
<b>Texas heelsplitter</b>	<i>Potamilus amphichaenus</i>		T
quiet waters in mud or sand and also in reservoirs. Sabine, Neches, and Trinity River basins			
<b>Texas pigtoe</b>	<i>Fusconaia askewi</i>		T
rivers with mixed mud, sand, and fine gravel in protected areas associated with fallen trees or other structures; east Texas River basins, Sulphur River, Cypress Creek, Sabine through Trinity rivers as well as San Jacinto River			

### REPTILES

		Federal Status	State Status
<b>Texas garter snake</b>	<i>Thamnophis sirtalis annectens</i>		
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			
<b>Texas horned lizard</b>	<i>Phrynosoma cornutum</i>		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 into soil, enters rodent burrows, or hides under rock when inactive; breeds March-September			
<b>Timber rattlesnake</b>	<i>Crotalus horridus</i>		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			

### PLANTS

		Federal Status	State Status
<b>Auriculate false foxglove</b>	<i>Agalinis auriculata</i>		
Known in Texas from one late nineteenth century specimen record labeled -Benbrook-; in Oklahoma, degraded prairies, floodplains, fallow fields, and borders of upland sterile woods; in Arkansas, blackland prairie; Annual; Flowering August - October			

## TARRANT COUNTY

### PLANTS

Federal Status

State Status

**Glen Rose yucca**

*Yucca necopina*

Texas endemic; grasslands on sandy soils and limestone outcrops; flowering April-June

**Hall's prairie clover**

*Dalea hallii*

GLOBAL RANK: G3; In grasslands on eroded limestone or chalk and in oak scrub on rocky hillsides; Perennial; Flowering May-Sept; Fruiting June-Sept

**Osage Plains false foxglove**

*Agalinis densiflora*

GLOBAL RANK: G3; Most records are from grasslands on shallow, gravelly, well drained, calcareous soils; Prairies, dry limestone soils; Annual; Flowering Aug-Oct

**Reverchon's curfpea**

*Pediomelum reverchonii*

GLOBAL RANK: G3; Mostly in prairies on shallow rocky calcareous substrates and limestone outcrops; Perennial; Flowering Jun-Sept; Fruiting June-July

**Texas milk vetch**

*Astragalus reflexus*

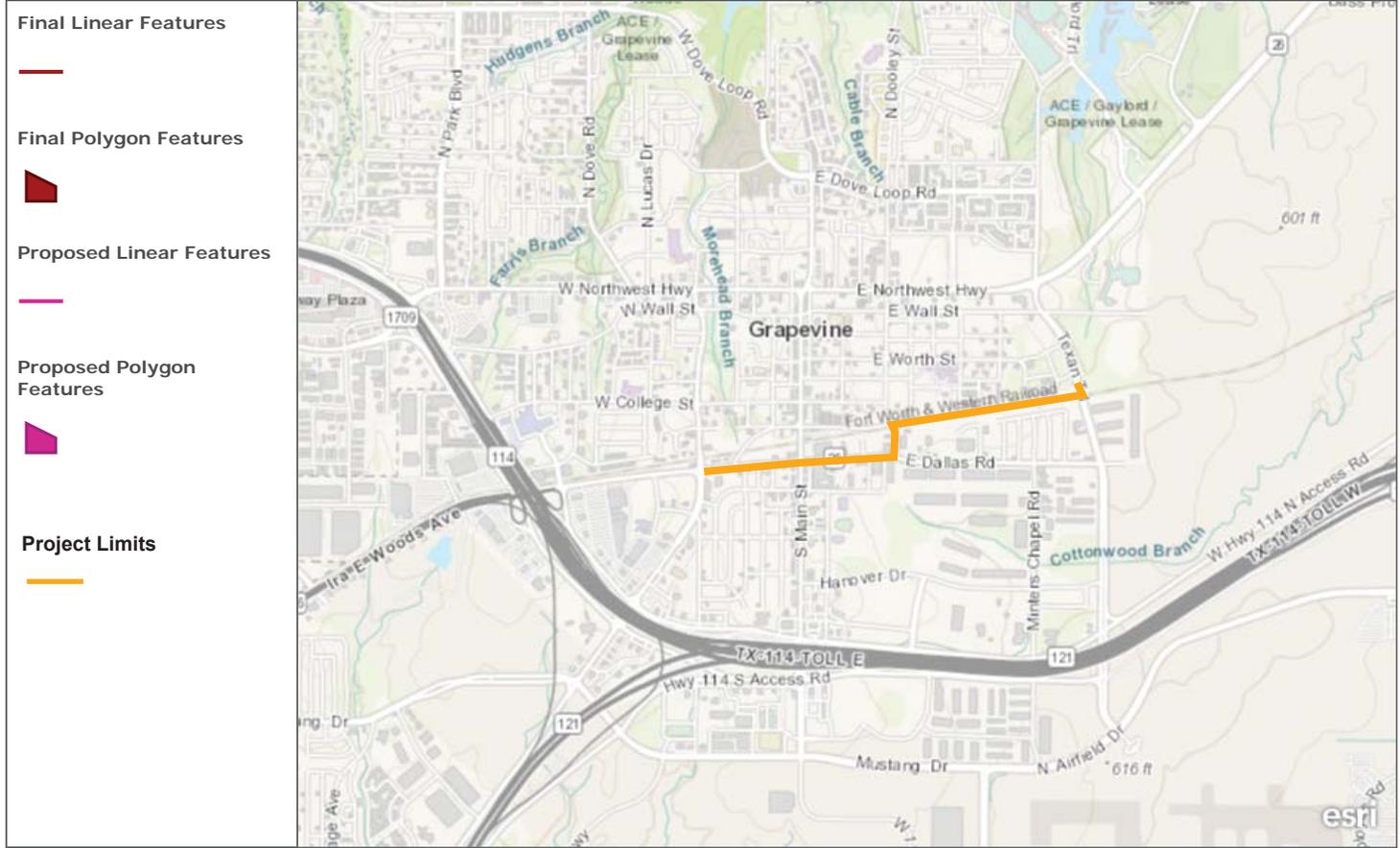
GLOBAL RANK: G3; Grasslands, prairies, and roadsides on calcareous and clay substrates; Annual; Flowering Feb-June; Fruiting April-June

**Topeka purple-coneflower**

*Echinacea atrorubens*

GLOBAL RANK: G3; Occurring mostly in tallgrass prairie of the southern Great Plains, in blackland prairies but also in a variety of other sites like limestone hillsides; Perennial; Flowering Jan-June; Fruiting Jan-May

### Critical Habitat for Threatened & Endangered Species [USFWS]



A specific geographic area(s) that contains features essential for the conservation of a threatened or endangered species and that may require special management and protection.

0.6mi

U.S. Fish and Wildlife Service | City of Fort Worth, City of Grapevine, Texas Parks & Wildlife, Esri, HERE, Garmin, INCREMENT P, USGS, METI/NASA, EPA, USDA

#### CRITICAL HABITAT MAP

DALLAS ROAD TOD CORRIDOR/  
COTTON BELT EXTENSION

Intersection of W. Dallas Road  
and William D. Tate Avenue  
To the existing Links Trail at  
Texan Trail Roadway  
Grapevine, Tarrant County, TX

CSJ: 0902-90-077

**Federal, State Listed Threatened/Endangered Species, and Texas Parks and Wildlife Department's Species of Concern, Tarrant County**

SPECIES	FEDERAL STATUS	STATE STATUS	DESCRIPTION OF SUITABLE HABITAT	HABITAT PRESENT	SPECIES EFFECT	JUSTIFICATION
BIRDS						
American Peregrine Falcon <i>Falco peregrinus anatum</i>		T	Year-round resident and local breeder in west Texas, nests in tall cliff eyries; also, migrant across state from more northern breeding areas in US and Canada, winters along coast and farther south; occupies wide range of habitats during migration, including urban, concentrations along coast and barrier islands; low-altitude migrant, stopovers at leading landscape edges such as lake shores, coastlines, and barrier islands.	No	No impact	There is no habitat present such as cliff eyries.
Arctic Peregrine Falcon <i>Falco peregrinus tundrius</i>			Migrant throughout state from <b>subspecies' far northern</b> breeding range, winters along coast and farther south; occupies wide range of habitats during migration, including urban, concentrations along coast and barrier islands; low-altitude migrant, stopovers at leading landscape edges such as lake shores, coastlines, and barrier islands.	No	No impact	There is no habitat present such as lake shores, coastlines, and barrier islands.
Bald Eagle <i>Haliaeetus leucocephalus</i>		T	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.	No	No impact	There is no habitat present such as rivers and large lakes.
Henslow's Sparrow <i>Ammodramus henslowii</i>			Wintering individuals (not flocks) found in weedy fields or cut-over areas where lots of bunch grasses occur along with vines and brambles; a key component is bare ground for running/walking.	No	No impact	There is no habitat present such as bunch grasses with vines and brambles.
Interior Least Tern <i>Sterna antillarum athalassos</i>	E	E	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	No effect	There is no habitat present such as sand and gravel bars.

**Federal, State Listed Threatened/Endangered Species, and Texas Parks and Wildlife Department's Species of Concern, Tarrant County**

SPECIES	FEDERAL STATUS	STATE STATUS	DESCRIPTION OF SUITABLE HABITAT	HABITAT PRESENT	SPECIES EFFECT	JUSTIFICATION
Peregrine Falcon <i>Falco peregrinus</i>		T	Both subspecies migrate across the state from more northern breeding areas in US and Canada to winter along coast and farther south; subspecies ( <i>F. p. anatum</i> ) is also a resident breeder in west Texas; the two <b>subspecies' listing statuses</b> differ, thus the species level shows this dual listing status; because the subspecies are not easily distinguishable at a distance, reference is generally made only to the species level; see subspecies for habitat.	No	No impact	There is no habitat present such as cliff eyries. No impacts are anticipated.
Piping Plover <i>Charadrius melodus</i>	T	T	Wintering migrant along the Texas Gulf Coast; beaches and bayside mud or salt flats	No	No effect	There is no habitat present such as beaches and bayside mud or salt flats. No impacts are anticipated.  Additionally, the proposed project is a trail project, and not a wind energy project.
Red Knot <i>Calidris canutus rufa</i>	T		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 <b>the knot's prominent pale</b> 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	No	No effect	There is no habitat present such as shoreline of coast and bays, mudflats, or tidal flats, or herbaceous wetlands.  Additionally, the proposed project is a trail project, and not a wind energy project; therefore, effects/impacts to the Red Knot were not considered.

**Federal, State Listed Threatened/Endangered Species, and Texas Parks and Wildlife Department's Species of Concern, Tarrant County**

SPECIES	FEDERAL STATUS	STATE STATUS	DESCRIPTION OF SUITABLE HABITAT	HABITAT PRESENT	SPECIES EFFECT	JUSTIFICATION
			include coquina clam ( <i>Donax</i> spp.) on beaches and dwarf surf clam ( <i>Mulinia lateralis</i> ) 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.			
Sprague's Pipit <i>Anthus spragueii</i>			Only in Texas during migration and winter, mid-September to early April; short to medium distance, diurnal migrant; strongly tied to native upland prairie, can be locally common in coastal grasslands, uncommon to rare further west; sensitive to patch size and avoids edges.	No	No impact	There is no habitat present such native upland prairie and coastal grasslands.
Western Burrowing Owl <i>Athene cunicularia hypugaea</i>			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.	No	No impact	There is no habitat present such as open grasslands and vacant lots near human habitation within the construction limits of the proposed project.
Whooping Crane <i>Grus americana</i>	E	E	The whooping crane breeds, migrates, winters, and forages in a variety of wetland and other habitats, including coastal marshes and estuaries, inland marshes, lakes, ponds, wet meadows and rivers, and agricultural fields. During migration, whooping cranes use a variety of habitats; however, wetland mosaics appear to be the most suitable. For feeding, whooping cranes primarily use shallow, seasonally and semi permanently flooded palustrine wetlands for roosting, and various cropland and emergent wetlands. Wintering habitat in the Aransas National Wildlife Refuge, Texas, includes salt marshes and tidal flats on the mainland and barrier islands,	No	No effect	There is no habitat present such as coastal marshes and estuaries, inland marshes, lakes, ponds, wet meadows and rivers, and agricultural field.

Federal, State Listed Threatened/Endangered Species, and Texas Parks and Wildlife Department's Species of Concern, Tarrant County						
SPECIES	FEDERAL STATUS	STATE STATUS	DESCRIPTION OF SUITABLE HABITAT	HABITAT PRESENT	SPECIES EFFECT	JUSTIFICATION
			dominated by salt grass, saltwort, smooth cordgrass, glasswort, and sea ox-eye.			
FISHES						
Shovelnose sturgeon <i>Scaphirhynchus platyrhynchus</i>		T	Open, flowing channels with bottoms of sand or gravel; spawns over gravel or rocks in an area with a fast current; Red River below reservoir and rare occurrence in Rio Grande.	No	No impact	A suitable habitat component, fast current, is not present in the project area. No impacts are anticipated.
MAMMALS						
Gray wolf <i>Canis lupus</i>	E	E	Extirpated; formerly known throughout the western two-thirds of the state in forests, brushlands, or grasslands.	No	No effect	Extirpated species, last known occurrences in Texas was Brewster County in 1970. No impacts are anticipated.
Plains spotted skunk <i>Spilogale putorius interrupta</i>			Catholic; open fields, prairies, croplands, fence rows, farmyards, forest edges, and woodlands; prefers wooded, brushy areas and tallgrass prairie.	No	No impact	There is no habitat present such as open fields, prairies, and woodlands within the construction limits of the proposed project.
Red wolf <i>Canis rufus</i>	E	E	Extirpated; formerly known throughout eastern half of Texas in brushy and forested areas, as well as coastal prairies.	No	No effect	Extirpated species. Declared extinct in wild in 1980. No impacts are anticipated.
MOLLUSKS						
Louisiana pigtoe <i>Pleurobema riddellii</i>		T	Streams and moderate-size rivers, usually flowing water on substrates of mud, sand, and gravel; not generally known from impoundments; Sabine, Neches, and Trinity (historic) River basins.	No	No impact	There are no water crossings within the proposed project area.
Sandbank pocketbook <i>Lampsilis satura</i>		T	small to large rivers with moderate flows and swift current on gravel, gravel-sand, and sand bottoms; east Texas, Sulfur south through San Jacinto River basins; Neches River	No	No impact	There are no water crossings within the proposed project area.
Texas heelsplitter <i>Potamilus amphichaenus</i>		T	Quiet waters in mud or sand and also in reservoirs. Sabine, Neches, and Trinity River basins.	No	No impact	There are no water crossings within the proposed project area.
Texas pigtoe <i>Fusconaia askewi</i>		T	Rivers with mixed mud, sand, and fine gravel in protected areas associated with fallen trees or other structures; east Texas River basins, Sulphur River, Cypress Creek, Sabine	No	No impact	There are no water crossings within the proposed project area.

Federal, State Listed Threatened/Endangered Species, and Texas Parks and Wildlife Department's Species of Concern, Tarrant County						
SPECIES	FEDERAL STATUS	STATE STATUS	DESCRIPTION OF SUITABLE HABITAT	HABITAT PRESENT	SPECIES EFFECT	JUSTIFICATION
			through Trinity rivers as well as San Jacinto River			
REPTILES						
Texas garter snake <i>Thamnophis sirtalis annectens</i>			Wet or moist microhabitats are conducive to the species occurrence but are not necessarily restricted to them; hibernates underground or in or under surface cover; breeds March-August.	No	No impact	There is no habitat present such as wet or moist microhabitats within the construction limits of the proposed project.
Texas horned lizard <i>Phrynosoma cornutum</i>		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 into soil, enters rodent burrows, or hides under rock when inactive; breeds March-September.	No	No impact	There is no habitat present such as open, arid and semi-arid regions with sparse vegetation. No impacts are anticipated.
Timber rattlesnake <i>Crotalus horridus</i>		T	Swamps, floodplains, upland woodlands, riparian zones, abandoned farmland; prefers dense ground cover, i.e., grapevines or palmetto.	No	No impact	There is no habitat present such as floodplains, upland woodlands, riparian zones, and dense ground cover within the construction limits of the proposed project.
PLANTS						
Auriculate false foxglove <i>Agalinis auriculata</i>			Known in Texas from one late nineteenth century specimen record labeled -Benbrook-; in Oklahoma, degraded prairies, floodplains, fallow fields, and borders of upland sterile woods; in Arkansas, blackland prairie; Annual; Flowering August - October	No	No impact	Although reported historically from 20 states, many states, including Texas, have no known extant populations.
Glen Rose yucca <i>Yucca necopina</i>			Texas endemic; grasslands on sandy soils and limestone outcrops; flowering April-June.	No	No impact	There is no habitat present such as clayey soil on top of limestone. No impacts are anticipated.
Hall's prairie clover <i>Dalea hallii</i>			GLOBAL RANK: G3; In grasslands on eroded limestone or chalk and in oak scrub on rocky hillsides; Perennial; Flowering May-Sept; Fruiting June-Sept	No	No impact	There is no habitat present such as grasslands on eroded limestone or chalk and in oak scrub on rocky hillsides. No impacts are

**Federal, State Listed Threatened/Endangered Species, and Texas Parks and Wildlife Department's Species of Concern, Tarrant County**

SPECIES	FEDERAL STATUS	STATE STATUS	DESCRIPTION OF SUITABLE HABITAT	HABITAT PRESENT	SPECIES EFFECT	JUSTIFICATION
						anticipated.
Osage Plains false foxglove <i>Agalinis densiflora</i>			GLOBAL RANK: G3; Most records are from grasslands on shallow, gravelly, well drained, calcareous soils; Prairies, dry limestone soils; Annual; Flowering Aug-Oct	No	No impact	There is no habitat present such as shallow, gravelly, well drained, calcareous soils; Prairies, dry limestone soils. No impacts are anticipated.
Reverchon's curfpea <i>Pediomelum reverchonii</i>			GLOBAL RANK: G3; Mostly in prairies on shallow rocky calcareous substrates and limestone outcrops; Perennial; Flowering Jun-Sept; Fruiting June-July	No	No impact	There is no habitat present such as prairies on shallow rocky calcareous substrates and limestone outcrops. No impacts are anticipated.
Texas milk vetch <i>Astragalus reflexus</i>			GLOBAL RANK: G3; Grasslands, prairies, and roadsides on calcareous and clay substrates; Annual; Flowering Feb-June; Fruiting April-June	No	No impact	There is no habitat present such as roadsides on calcareous and clay substrates within the construction limits of the proposed project.
Topeka purple-coneflower <i>Echinacea atrorubens</i>			GLOBAL RANK: G3; Occurring mostly in tallgrass prairie of the southern Great Plains, in blackland prairies but also in a variety of other sites like limestone hillsides; Perennial; Flowering Jan-June; Fruiting Jan-May	No	No impact	There is no habitat present such as in tallgrass prairie of the southern Great Plains, in Blackland Prairies but also in a variety of other sites like limestone hillsides. No impacts are anticipated.

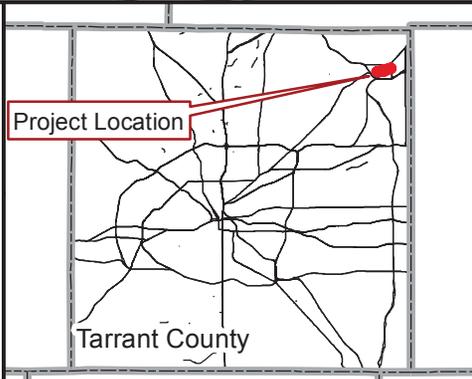
E – Endangered  
T – Threatened  
“blank” – Rare, but with no regulatory listing status

Source: U.S. Fish & Wildlife Service IPaC Trust Resource Report (generated March 14, 2018); Texas Parks & Wildlife Department, Wildlife Division, Diversity and Habitat Assessment Programs, County Lists of Texas Special Species (Tarrant County, December 30, 2016), and Field Visits (March 14, 2018).



**Legend**

- Urban
- Proposed Sidewalk/Trail
- Pavement
- Existing ROW
- Railroad Track
- Tree



**MOU VEGETATION MAP  
(PRESENT PER TESCP/EMST MAPPER)**

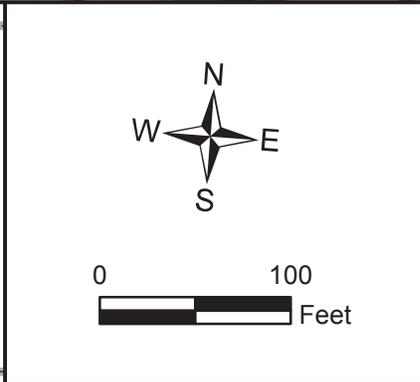
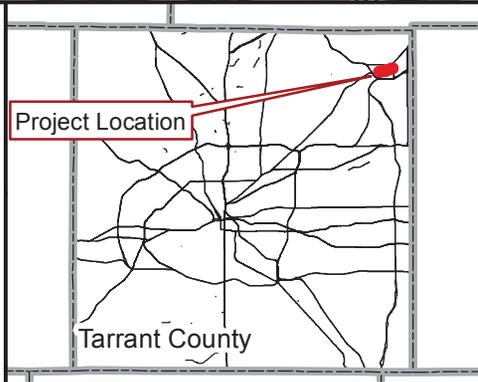
DALLAS ROAD TOD CORRIDOR/  
COTTON BELT EXTENSION  
From the intersection of W. Dallas Road  
and William D. Tate Avenue  
To the existing Links Trail at  
Texan Trail Roadway  
Grapevine, Tarrant County, TX

CSJ: 0902-90-077



**Legend**

- Urban
- Proposed Sidewalk/Trail
- Pavement
- Existing ROW
- Railroad Track
- Tree



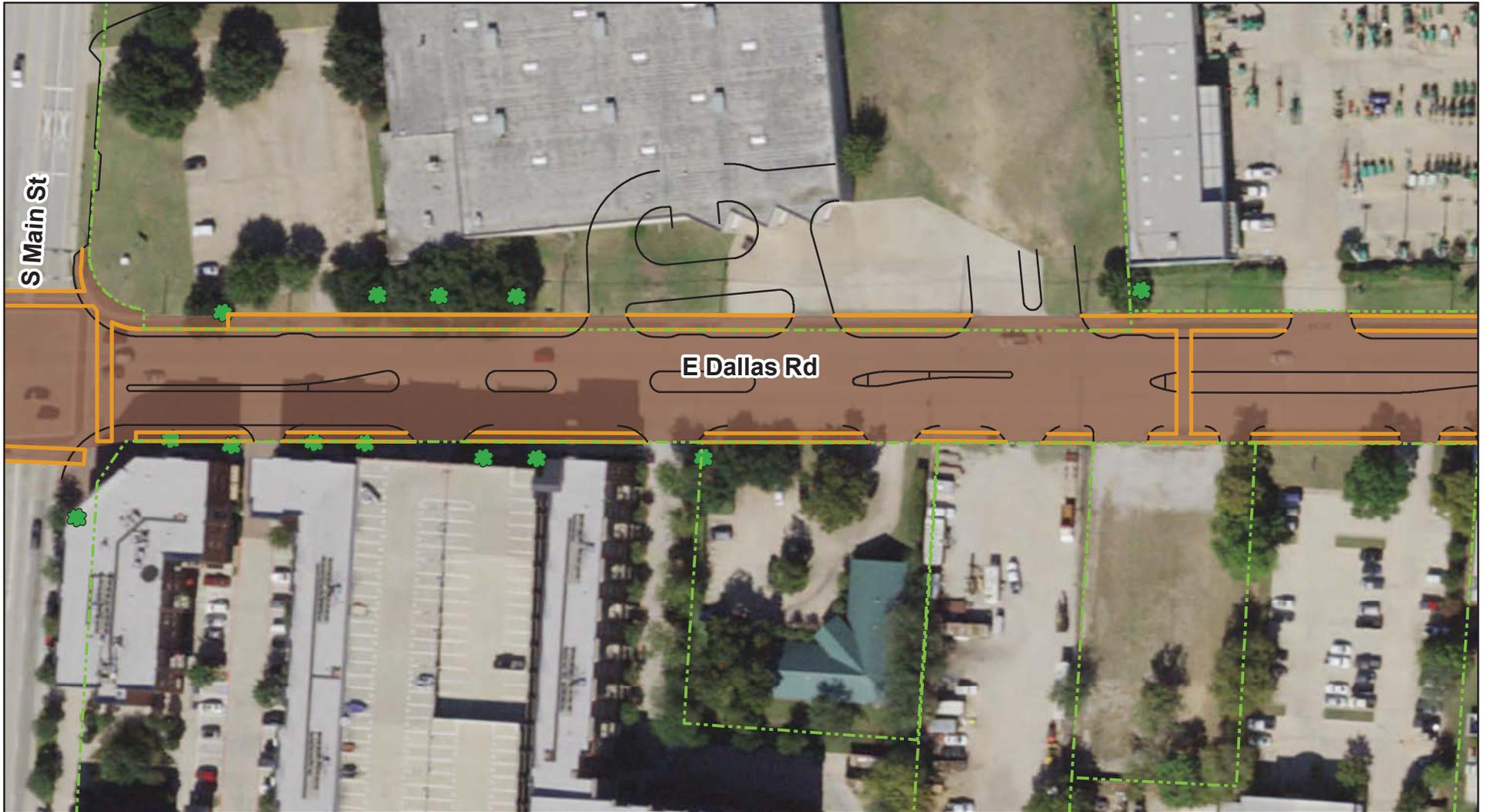
**MOU VEGETATION MAP  
(PRESENT PER TESCP/EMST MAPPER)**

DALLAS ROAD TOD CORRIDOR/  
COTTON BELT EXTENSION

From the intersection of W. Dallas Road  
and William D. Tate Avenue  
To the existing Links Trail at  
Texan Trail Roadway  
Grapevine, Tarrant County, TX

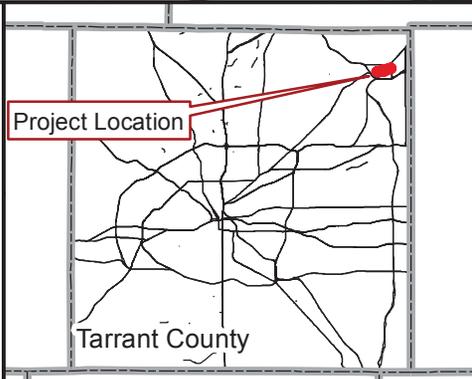
CSJ: 0902-90-077

Page 2 of 8



**Legend**

-  Urban
-  Proposed Sidewalk/Trail
-  Pavement
-  Existing ROW
-  Railroad Track
-  Tree



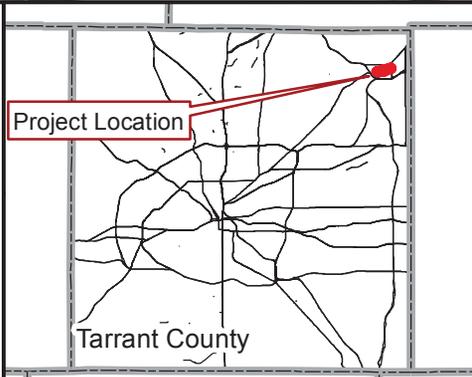
**MOU VEGETATION MAP  
(PRESENT PER TESCP/EMST MAPPER)**

DALLAS ROAD TOD CORRIDOR/  
COTTON BELT EXTENSION  
From the intersection of W. Dallas Road  
and William D. Tate Avenue  
To the existing Links Trail at  
Texan Trail Roadway  
Grapevine, Tarrant County, TX  
CSJ: 0902-90-077  
Page 3 of 8



**Legend**

- Urban
- Proposed Sidewalk/Trail
- Pavement
- Existing ROW
- Railroad Track
- Tree



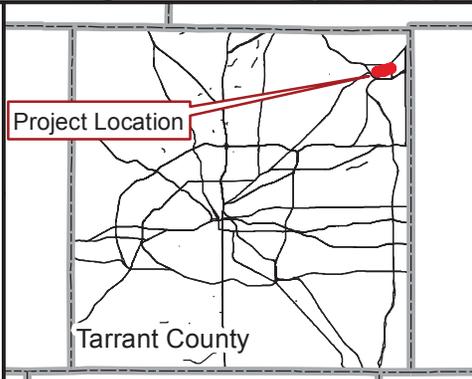
**MOU VEGETATION MAP  
(PRESENT PER TESCP/EMST MAPPER)**

DALLAS ROAD TOD CORRIDOR/  
COTTON BELT EXTENSION  
From the intersection of W. Dallas Road  
and William D. Tate Avenue  
To the existing Links Trail at  
Texan Trail Roadway  
Grapevine, Tarrant County, TX  
CSJ: 0902-90-077  
Page 4 of 8



**Legend**

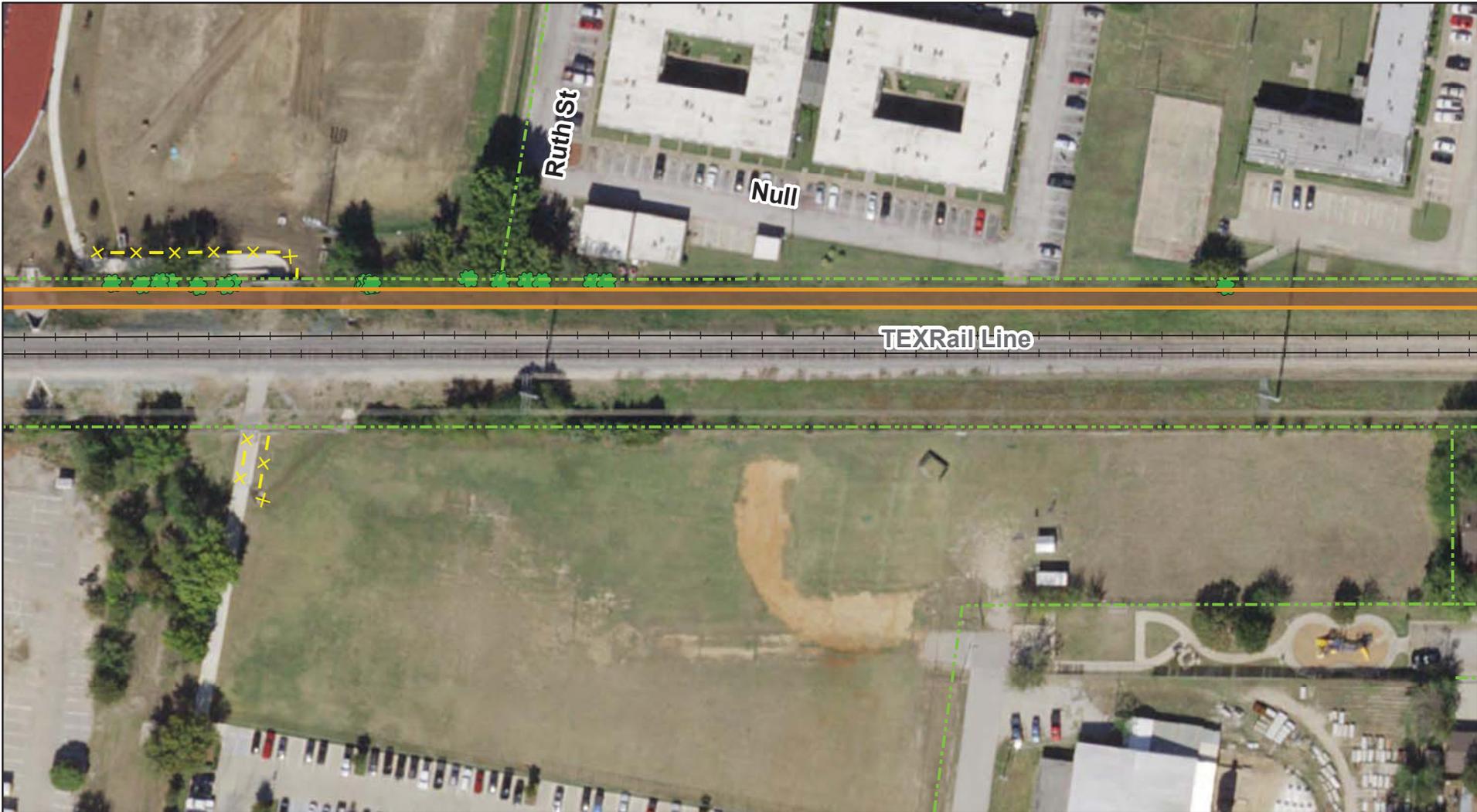
-  Urban
-  Proposed Sidewalk/Trail
-  Pavement
-  Existing ROW
-  Railroad Track
-  Tree



**MOU VEGETATION MAP  
(PRESENT PER TESCP/EMST MAPPER)**

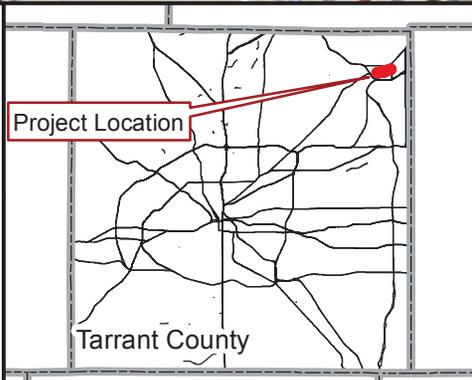
DALLAS ROAD TOD CORRIDOR/  
COTTON BELT EXTENSION  
From the intersection of W. Dallas Road  
and William D. Tate Avenue  
To the existing Links Trail at  
Texan Trail Roadway  
Grapevine, Tarrant County, TX

CSJ: 0902-90-077



**Legend**

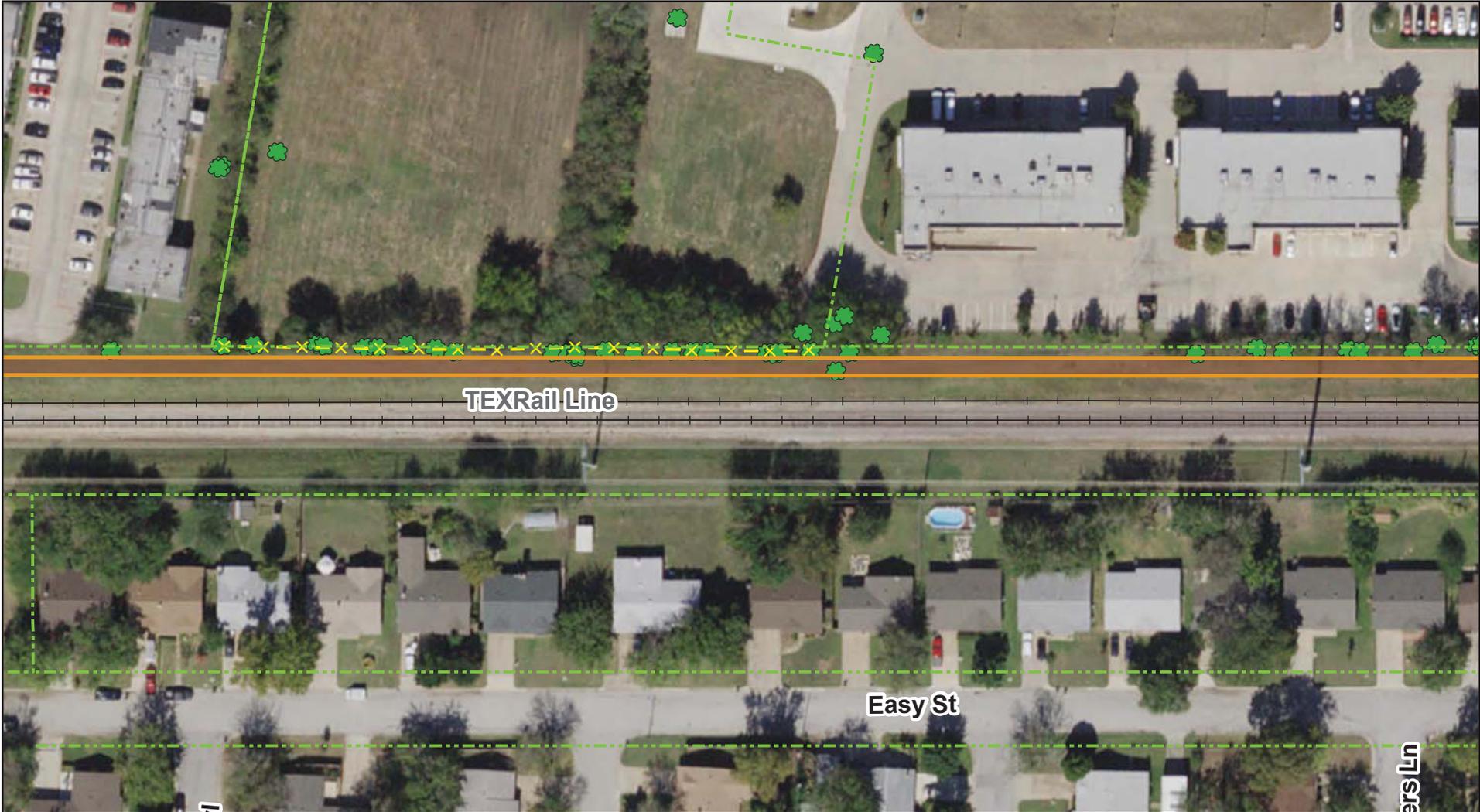
-  Urban
-  Proposed Sidewalk/Trail
-  Pavement
-  Existing ROW
-  Railroad Track
-  Tree



**MOU VEGETATION MAP  
(PRESENT PER TESCP/EMST MAPPER)**

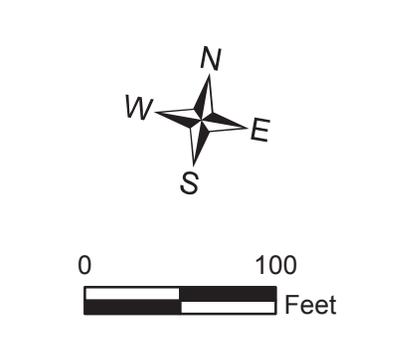
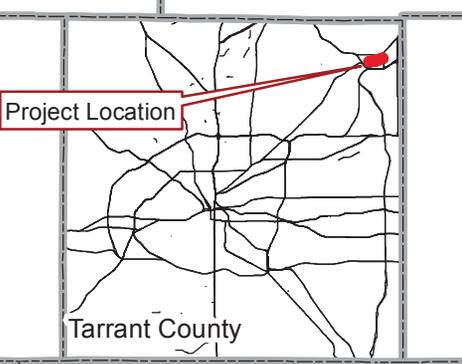
DALLAS ROAD TOD CORRIDOR/  
COTTON BELT EXTENSION  
From the intersection of W. Dallas Road  
and William D. Tate Avenue  
To the existing Links Trail at  
Texan Trail Roadway  
Grapevine, Tarrant County, TX

CSJ: 0902-90-077



**Legend**

-  Urban
-  Proposed Sidewalk/Trail
-  Pavement
-  Existing ROW
-  Railroad Track
-  Tree



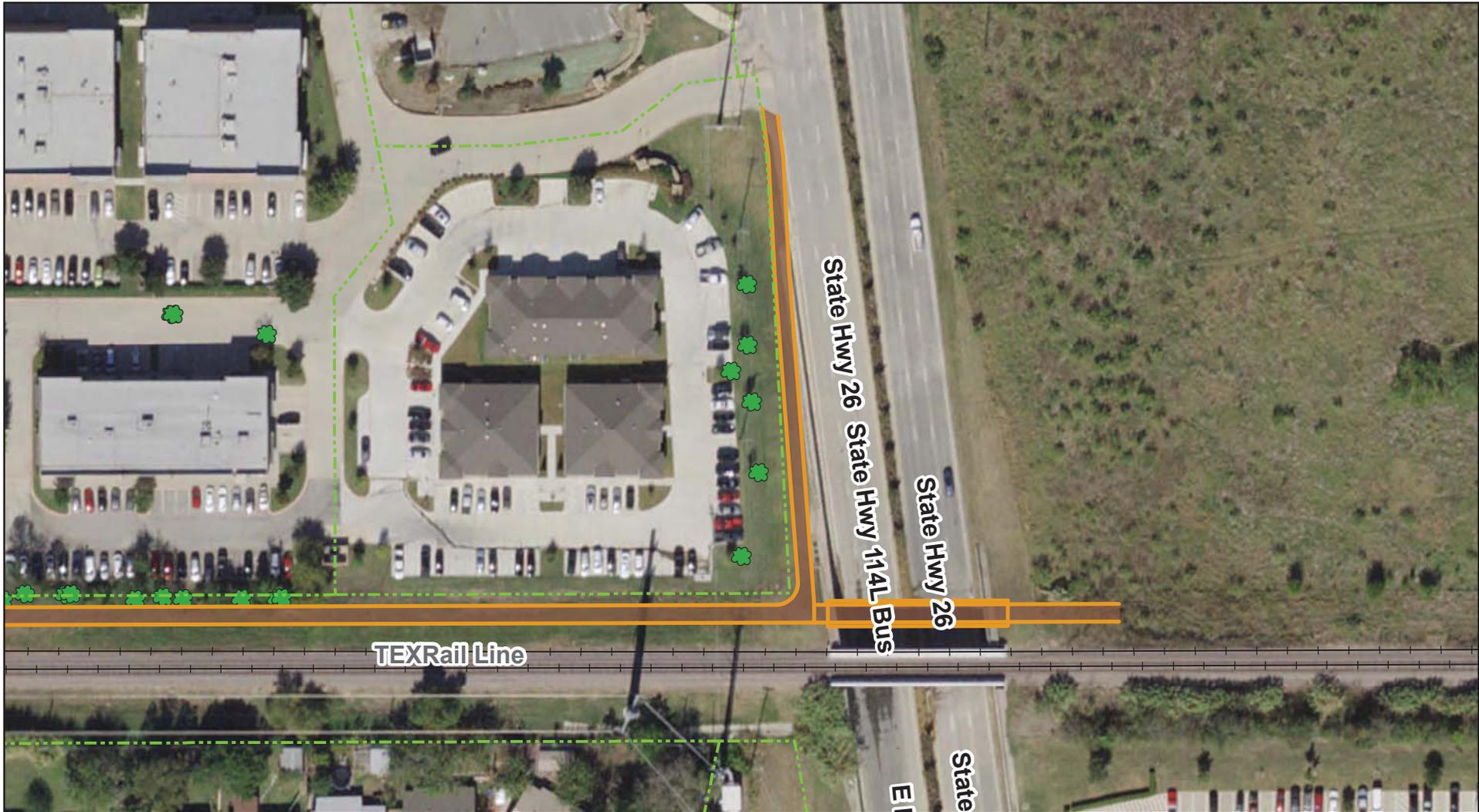
**MOU VEGETATION MAP  
(PRESENT PER TESCP/EMST MAPPER)**

DALLAS ROAD TOD CORRIDOR/  
COTTON BELT EXTENSION

From the intersection of W. Dallas Road  
and William D. Tate Avenue  
To the existing Links Trail at  
Texan Trail Roadway  
Grapevine, Tarrant County, TX

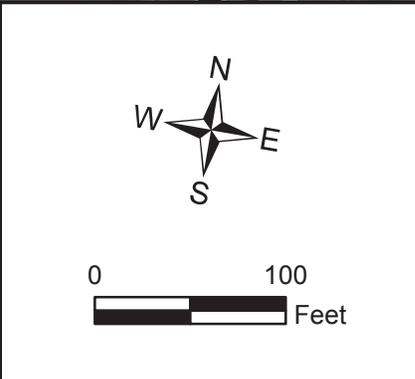
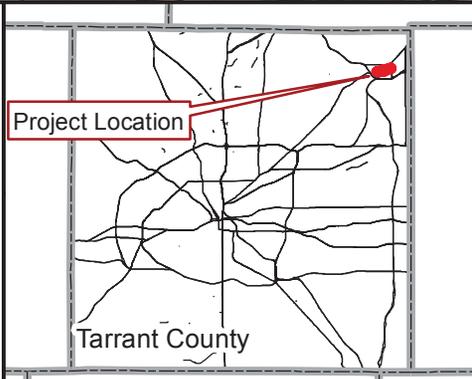
CSJ: 0902-90-077

Page 7 of 8



**Legend**

-  Urban
-  Proposed Sidewalk/Trail
-  Pavement
-  Existing ROW
-  Railroad Track
-  Tree



**MOU VEGETATION MAP  
(PRESENT PER TESC/P/EMST MAPPER)**

DALLAS ROAD TOD CORRIDOR/  
COTTON BELT EXTENSION  
From the intersection of W. Dallas Road  
and William D. Tate Avenue  
To the existing Links Trail at  
Texan Trail Roadway  
Grapevine, Tarrant County, TX  
CSJ: 0902-90-077  
Page 8 of 8

**EMST MOU Habitat Types  
DALLAS ROAD TOD CORRIDOR/COTTON BELT EXTENSION  
CSJ: 0902-90-077**

Present per the Texas Ecological Systems Classification Project (TESCP) conversion of Common Name=>NatureServe Ecological System Name=>MOU TYPE

CommonName	NatureServe_Number	NatureServe_EcoSys	MOU_Type	Area (ac)
Urban High Intensity	TPW101.003	Urban	Urban	7.2
Urban Low Intensity	TPW101.003	Urban	Urban	2.4
			<b>Total</b>	<b>9.6</b>

**Actual MOU Type vegetation present per site visits and aerial photography**

MOU Type	Area (ac)
Urban	9.6

**Threshold Comparison (Texas Blackland Prairies [TBPR])**

Actual MOU Type	Area of Direct Impact (ac)**	TBPR Threshold (ac)	Equal to or Greater than PA Threshold?
Urban	9.6	No Threshold	Not Applicable

Updated: 4-4-18

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	
<b>MAMMALS</b>						
<i>Blarina hylophaga plumblea</i>	Elliot's short-tailed shrew			G5T1Q	S1	Savanna/Open Woodland
<i>Geomys attwateri</i>	Attwater's pocket gopher			G4	S4	Shrubland
<i>Lutra canadensis</i>	River otter			G5	S4	Riparian
<i>Mustela frenata</i>	Long-tailed weasel			G5	S5	Forest, Woodland, Desert Scrub, Shrubland, Savanna/Open Woodland
<i>Myotis austroriparius</i>	Southeastern myotis			G3G4	S3	Caves/Karst, Forest, Riparian
<i>Myotis velifer</i>	Cave myotis			G5	S4	Caves/Karst,
<i>Puma concolor</i>	Mountain lion			G5	S2	Forest, Woodland, Desert Scrub, Shrubland, Savanna/Open Woodland, Riparian
<i>Spilogale putorius</i>	Eastern spotted skunk			G4T	S4	Savanna/Open Woodland, Grassland
<i>Sylvilagus aquaticus</i>	Swamp rabbit			G5	S5	Riparian, Freshwater Wetland
<i>Tadarida brasiliensis</i>	Brazilian free-tailed bat			G5	S5	Cave/Karst, Artificial Refugia
<i>Taxidea taxus</i>	American badger			G5	S5	Grassland, Desert scrub, Woodland, Savanna/Open Woodland, Forest
<i>Ursus americanus</i>	Black bear	SAT	T	G5	S3	Forest, Woodland, Savanna/Open Woodland, Desert Scrub, Shrubland
<b>BIRDS</b>						
<i>Anas acuta</i>	Northern Pintail			G5	S3B,S5N	Lacustrine, freshwater wetland, saltwater wetland, coastal, marine
<i>Colinus virginianus</i>	Northern Bobwhite			G5	S4B	Grassland, Shrubland, Savanna/Open Woodland
<i>Tympanuchus cupido</i>	Greater Prairie-Chicken (Interior)			G4	S1B	Grassland
<i>Meleagris gallopavo</i>	Wild Turkey			G5	S5B	Shrubland, Savanna/Open Woodland, Forest, Riparian, Agricultural
<i>Ixobrychus exilis</i>	Least Bittern			G5	S4B	Lacustrine, Freshwater Wetland, Saltwater Wetland, Estuary
<i>Egretta thula</i>	Snowy Egret			G5	S5B	Riparian, Riverine, Lacustrine, Freshwater Wetland, Saltwater Wetland, Estuary, Coastal, Cultural Aquatic
<i>Egretta caerulea</i>	Little Blue Heron			G5	S5B	Riparian, Riverine, Lacustrine, Freshwater Wetland, Saltwater Wetland, Estuary, Coastal, Cultural Aquatic
<i>Butorides virescens</i>	Green Heron			G5	S5B	Riparian, Riverine, Lacustrine, Freshwater Wetland, Cultural Aquatic
<i>Mycteria americana</i>	Wood Stork		T	G4	SHB,S2N	Riverine, Freshwater wetland
<i>Ictinia mississippiensis</i>	Mississippi Kite			G5	S4B	Woodland, Forest, Riparian, Developed:Urban/Suburban/Rural
<i>Haliaeetus leucocephalus</i>	Bald Eagle			G5	S3B,S3N	Riparian, Lacustrine, Freshwater Wetland, Saltwater Wetland
<i>Circus cyaneus</i>	Northern Harrier			G5	S2B,S3N	Grassland, Shrubland
<i>Buteo lineatus</i>	Red-shouldered Hawk			G5	S4B	Woodland, Forest, Riparian, Freshwater Wetland
<i>Pluvialis dominica</i>	American Golden-Plover			G5	S3	Grassland, Freshwater Wetland, Agricultural
<i>Charadrius montanus</i>	Mountain Plover	PT		G3	S2	Agricultural, Grassland
<i>Scolopax minor</i>	American Woodcock			G5	S2B,S3N	Woodland, Forest, Riparian
<i>Sterna antillarum</i>	Least Tern	LE*	E*	G4	S3B	Riverine, Lacustrine, Freshwater Wetland, Saltwater Wetland, Estuary, Coastal, Marine, Developed: Industrial
<i>Asio flammeus</i>	Short-eared Owl			G5	S4N	Grassland, Shrubland, Agricultural
<i>Caprimulgus carolinensis</i>	Chuck-will's-widow			G5	S3S4B	Woodland, Forest, Riparian
<i>Melanerpes erythrocephalus</i>	Red-headed Woodpecker			G5	S3B	Savanna/Open Woodland, Woodland, Forest, Riparian, Developed: Urban/Suburban/Rural
<i>Dryocopus pileatus</i>	Pileated Woodpecker			G5	S4B	Savanna/Open Woodland, Woodland, Forest, Riparian, Developed: Urban/Suburban/Rural
<i>Tyrannus forficatus</i>	Scissor-tailed Flycatcher			G5	S3B	Desert Scrub, Grassland, Shrubland, Agricultural, Developed
<i>Lanius ludovicianus</i>	Loggerhead Shrike			G4	S4B	Desert Scrub, Grassland, Shrubland, Savanna/Open Woodland, Agricultural, Developed
<i>Vireo bellii</i>	Bell's Vireo			G5	S3B	Desert scrub, Shrubland, Riparian
<i>Poecile carolinensis</i>	Carolina Chickadee			G5	S5B	Woodland, Forest, Riparian, Developed: Urban/Suburban/Rural
<i>Thryomanes bewickii (bewickii)</i>	Bewick's Wren			G5	S5B	Shrubland, Savanna/Open Woodland, Woodland, Developed: Urban/Suburban/Rural
<i>Cistothorus platensis</i>	Sedge Wren			G5	S4	Grassland, Freshwater Wetland
<i>Hylocichla mustelina</i>	Wood Thrush			G5	S4B	Woodland, Forest, Riparian
<i>Anthus spragueii</i>	Sprague's Pipit	C		G4	S3N	Barren/Sparse Vegetation, Grassland, Shrubland, Agricultural
<i>Dendroica dominica</i>	Yellow-throated Warbler			G5	S4B	Woodland, Forest, Riparian
<i>Protonotaria citrea</i>	Prothonotary Warbler			G5	S3B	Woodland, Forest, Riparian, Lacustrine, Freshwater Wetland
<i>Limnithypis swainsonii</i>	Swainson's Warbler			G4	S3B	Woodland, Forest, Riparian
<i>Seiurus motacilla</i>	Louisiana Waterthrush			G5	S3B	Woodland, Forest, Riparian
<i>Oporornis formosus</i>	Kentucky Warbler			G5	S3B	Woodland, Forest
<i>Spizella pusilla</i>	Field Sparrow			G5	S5B	Grassland, Shrubland, 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	
<i>Ammodramus savannarum</i>	Grasshopper Sparrow			G5	S3B	Grassland, Agricultural
<i>Chondestes grammacus</i>	Lark Sparrow			G5	S4B	Grassland, Shrubland, Savanna/Open Woodland
<i>Ammodramus henslowii</i>	Henslow's Sparrow			G4	S2S3N,SXB	Grassland, Savanna/Open Woodland
<i>Ammodramus leconteii</i>	Le Conte's Sparrow					Grassland
<i>Zonotrichia querula</i>	Harris's Sparrow			G5	S4	Shrubland, Agricultural
<i>Calcarius mccownii</i>	McCown's Longspur			G4	S4	Grassland, Agricultural
<i>Calcarius pictus</i>	Smith's Longspur					Grassland, Agricultural
<i>Piranga rubra</i>	Summer Tanager			G5	S5B	Savanna/Open Woodland, Woodland, Forest, Riparian, Developed: Urban/Suburban/Rural
<i>Passerina ciris</i>	Painted Bunting			G5	S4B	Shrubland, Agricultural
<i>Spiza americana</i>	Dickcissel			G5	S4B	Grassland, Agricultural
<i>Sturnella magna</i>	Eastern Meadowlark			G5	S5B	Grassland, Shrubland, Savanna/Open Woodland
<i>Euphagus carolinus</i>	Rusty Blackbird			G4	S3	Woodland, Forest, Riparian, Lacustrine, Freshwater Wetland
<i>Icterus spurius</i>	Orchard Oriole			G5	S4B	Shrubland, Savanna/Open Woodland, Woodland, Riparian
<b>REPTILES AND AMPHIBIANS</b>						
<i>Anaxyrus (Bufo) woodhousii</i>	Woodhouse's toad			G5	SU	woodland, forest, freshwater wetland
<i>Apalone mutica</i>	smooth softshell turtle					riparian, riverine, lacustrine, freshwater wetland
<i>Apalone spinifera</i>	spiny softshell turtle					riparian, riverine, lacustrine, freshwater wetland
<i>Cheilydra serpentina</i>	Common snapping turtle					riparian, riverine
<i>Crotalus atrox</i>	Western diamondback rattlesnake				S4	barren/sparse vegetation, desert scrub, grassland, shrubland, savanna, woodland, caves/karst
<i>Crotalus horridus</i>	Timber (Canebrake) Rattlesnake		T	G4	S4	woodland, forest, riparian
<i>Graptemys caglei</i>	Cagle's map turtle		T	G3	S1	riparian, riverine
<i>Graptemys versa</i>	Texas map turtle			G4	SU	riparian, riverine
<i>Heterodon nasicus</i>	Western hognosed snake					desert scrub, grassland, shrubland
<i>Macrochelys temminckii</i>	alligator snapping turtle		T	G3G4	S3	riparian, riverine, cultural aquatic
<i>Ophisaurus attenuatus</i>	western slender glass lizard					grassland, savanna
<i>Phrynosoma cornutum</i>	Texas horned lizard		T	G4G5	S4	desert scrub, grassland, savanna
<i>Pseudacris streckeri</i>	Strecker's Chorus Frog			G5	S3	grassland, savanna, woodland, riparian, cultural aquatic, freshwater wetland
<i>Sistrurus catenatus</i>	massasauga					grassland, barren/sparse vegetation, shrubland, coastal,
<i>Terrapene carolina</i>	Eastern box turtle			G5	S3	grasslands, savanna, woodland
<i>Terrapene ornata</i>	Ornate box turtle			G5	S3	grassland, barren/sparse vegetation, desert scrub, savanna, woodland
<i>Thamnophis sirtalis annectans</i>	Texas Garter Snake (Factored toward New Mexico)			G5	S2	riparian, around lacustrine and cultural aquatic sites
<i>Trachemys scripta</i>	Red-eared slider					riparian, riverine, lacustrine, freshwater wetland, cultural aquatic
<b>FRESHWATER FISHES</b>						
<i>Anguilla rostrata</i>	American eel			G4	S5	streams and reservoirs in drainages connected to marine environments
<i>Atractosteus spatula</i>	alligator gar					channel snag, pool-s snag complex, pool-edge, and pool-vegetation habitat
<i>Cyprinostomus elongatus</i>	Blue sucker		T	G3G4	S3	large, deep rivers, and deeper zones of lakes
<i>Etheostoma fonticola</i>	Fountain darter	LE	E	G1	S1	usually in dense beds of <i>Vallisneria</i> , <i>Elodia</i> , <i>Ludwigia</i> and other aquatic plants; substrate normally mucky
<i>Macrhybopsis storeriana</i>	Silver chub					over silt or mud, turbid water with very soft sand/silt substrate
<i>Micropterus treculii</i>	Guadalupe bass			G3	S3	small lentic environments; commonly taken in flowing water
<i>Notropis atrocaudalis</i>	Blackspot shiner					backwater and swiftest currents
<i>Notropis bairdi</i>	Red River shiner					streambeds with widely fluctuating flows subject to high summer temperatures, high rates of evaporation,
<i>Notropis buccula</i>	Small eye shiner	C		G2Q	S2	broad condition tolerances (turbidity, salinity, oxygen).
<i>Notropis chalybaeus</i>	Ironcolor shiner					Plain streams and rivers of low to moderate gradient; often at the upstream ends of pools, with a moderate to
<i>Notropis oxyrinchus</i>	Sharpnose shiner	C		G3	S3	Moderate current velocities and depths, sand bottom
<i>Notropis potteri</i>	Chub shiner		T	G4	S3	turbid, flowing water with silt or sand substrate; tolerant of high salinities
<i>Notropis shumardi</i>	Silverband shiner					channel with moderate to swift current velocities and moderate to deep depths; associated with turbid water
<i>Percina apristis</i>	Guadalupe darter					collections from the clearest waters tributary to the Guadalupe, namely spring heads and the main river west
<i>Polyodon spathula</i>	Padddlefish		T	G4	S3	rivers, sluggish pools, backwaters, bayous, and oxbows with abundant zooplankton; large reservoirs if
<i>Satan eurystomus</i>	Widemouth blindcat		T	G1	S1	Karst: Subterranean waters
<i>Trogloglanis pattersoni</i>	Toothless blindcat		T	G1	S1	Karst: Subterranean waters
<b>INVERTEBRATES</b>						
<i>Bombus pensylvanicus</i>	American bumblebee			GU	SU*	Grassland, Savanna/Open Woodland
<i>Chimarra holzenthali</i>	Holzenthali's Philopotamid caddisfly			G1G2	S1	Riparian, Riverine
<i>Cotinis boylei</i>	A scarab beetle			G2*	S2*	Grassland, Shrubland, Woodland
<i>Nicrophorus americanus</i>	American Burying Beetle	LE		G1	S1	Grassland, Savanna/Open Woodland

Texas Blackland Prairies Ecoregion 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	
<i>Potamilus amphichaenus</i>	Texas heelsplitter		T	G1G2	S1	Riverine
<i>Procambarus regalis</i>	Regal burrowing crayfish			G2G3	S2?*	Freshwater Wetland, Grassland
<i>Procambarus steigmani</i>	Parkhill prairie crayfish			G1G2	S1S2*	Freshwater Wetland, Grassland
<i>Pseudocentropiloides morihari</i>	A mayfly			G2G3	S2?*	Riverine, Riparian
<i>Sphinx eremitoides</i>	Sage sphinx			G1G2	S1?*	Grassland
<i>Susperatus tonkawa</i>	A mayfly			G1	S1*	Riparian, Riverine
<b>PLANTS</b>						
<i>Agalinis densiflora</i>	Osage Plains false foxglove			G3	S2	Savanna/Open Woodland - Outcrops
<i>Astragalus reflexus</i>	Texas milk vetch			G3	S3	Savanna/Open Woodland
<i>Calopogon oklahomensis</i>	Oklahoma grass pink			G3	S1S2	Savanna/Open Woodland; Grassland; Freshwater Wetland
<i>Carex edwardsiana</i>	canyon sedge			G3G4S3S4	S3S4	Woodland (slopes above Riparian)
<i>Carex shinnensis</i>	Shinner's sedge			G3?	S2	Grassland
<i>Crataegus dallasiana</i>	Dallas hawthorn			G3Q	S3	Riparian (creeks in the Blackland Prairie)
<i>Cuscuta exaltata</i>	tree dodder			G3	S3	Woodland
<i>Dalea hallii</i>	Hall's prairie-clover			G3	S3	Savanna/Open Woodland; Grassland
<i>Echinacea atrorubens</i>	Topeka purple-coneflower			G3	S3	Savanna/Open Woodland
<i>Hexalectris nitida</i>	Glass Mountains coral-root			G3	S3	Woodland
<i>Hexalectris warnockii</i>	Warnock's coral-root			G2G3	S2	Woodland
<i>Hymenoxys pygmaea</i>	Pygmy prairie dawn			G1	S1	Barren/Sparse Vegetation with Grassland matrix (saline prairie)
<i>Liatrix glandulosa</i>	glandular gay-feather			G3	S3	Savanna/Open Woodland
<i>Paronychia setacea</i>	bristle nailwort			G3	S3	Savanna/Open Woodland
<i>Phlox oklahomensis</i>	Oklahoma phlox			G3	SH	Savanna/Open Woodland
<i>Physaria engelmannii</i>	Engelmann's bladderpod			G3	S3	Savanna/Open Woodland
<i>Polygonella parksii</i>	Parks' jointweed			G2	S2	Savanna/Open Woodland (sandhills); Grassland
<i>Prunus texana</i>	Texas peachbush			G3G4	S3S4	Savanna/Open Woodland; Grassland
<i>Thalictrum texanum</i>	Texas meadow-rue			G2	S2	Savanna/Open Woodland; Riparian (bottomland forest)
<i>Zizania texana</i>	Texas wild rice	LE	E	G1	S1	Riverine (spring-fed, clear, thermally constant, moderate current, sand to gravel substrate)