Biological Evaluation Form

Main CSJ: 0265-03-041
Form Prepared By: Blanton & Associates

Date of Evaluation: October 10, 2018

☐ *Project has no Federal nexus.*

Proposed Letting Date: May 2021

☐ *Project not assigned to TxDOT under the NEPA Assignment MOU*

District(s): Austin
County(ies): Bastrop
Roadway Name: State Highway (SH) 71 at Farm-to-Market (FM) 1209
Limits From: County Road (CR) 206
Limits To: SH 21

Project Description: The Texas Department of Transportation (TxDOT) Austin District is proposing to add a grade separation and other roadway improvements to SH 71 from CR 206 to SH 21 in Bastrop County, Texas. The proposed improvements would include constructing new frontage roads, a grade-separation over FM 1209, and shared use paths. The proposed improvements would also widen FM 1209 to include a second travel lane, a right turn lane, and a 14-foot-wide left turn lane in each direction. Eastbound to westbound and westbound to eastbound turnarounds would also be added to the intersection.

The existing SH 71 facility consists of two 12-foot-wide travel lanes in each direction with 10-foot-wide outside shoulders and 4-foot-wide inside shoulders. Directions of travel are separated by a grassy depressed median, approximately 68 feet in width. The existing right-of-way (ROW) is approximately 240 feet wide.

The proposed project would add a grade separation at FM 1209 and would maintain access to adjacent properties with new access roads. Access to FM 1209 would be provided via ramps to the anticipated signalized intersection. If completed, the mainlanes of the SH 71 facility would consist of two 12-foot-wide lanes in each direction with 10-foot-wide outside shoulders and 4-foot-wide inside shoulders. Directions of travel would be separated by a grassy median that would usually be 56 feet in width. Each access road would consist of two 12-foot-wide travel lanes with 2-foot-wide inside and outside curb and gutter. Ramps would have a 14-foot-wide travel lane with a 4-foot-wide inside shoulder, a 6-foot-wide outside shoulder, and curb and gutter on both sides. Twenty-four-foot-wide at-grade turnarounds for east to west and west to east bound traffic would also be added at the intersection. A 10-foot-wide shared-use path would also be constructed on each side of SH 71 and FM 1209.

The length of the proposed project is approximately 2.2 miles. It is anticipated that the project would require approximately 40 acres of additional ROW.

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: August 2, 2018

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

*Explain:

No suitable habitat for a federally protected species occurs within the proposed project area, as verified by a qualified biologist. Therefore, the proposed project would have no effect on federally listed species.

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:

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:

Swallow nests were observed (see attached photos), but they were not active at the time of the field investigation.

Bald and Golden Eagle Protection Act (BGEPA)

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

Comments:

The project area does not contain suitable habitat for bald or golden eagles, as verified by a qualified biologist.

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:

It is anticipated that the proposed project would be authorized by a Section 404 Nationwide Permit 14 Linear Transportation Projects with a Pre-construction Notification (PCN), due to anticipated permanent impacts to wetlands.

Executive Order 13112 on Invasive Species

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

Comments:

Permanent soil erosion control features would be constructed as soon as feasible during the early stages of construction through proper sodding and/or seeding techniques. Disturbed areas would be restored and stabilized as soon as the construction schedule permits. Therefore, in accordance with the Executive Order 13112 on Invasive Species, seeding and replanting with TxDOT approved seeding specifications would be performed where possible.

Executive Memorandum on Environmentally and Economically Beneficial Landscaping

No — Would landscaping be included in the proposed projects?

Farmland Protection Policy Act (FPPA)

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

- Yes — 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?
- Yes — Is the proposed action a linear project?
- No — Was the score on Part IV of FPPA Form SCS-CPA 106 equal to or greater than 60?

Comments:

The proposed project scored below 60 on the FPPA Form SCS-CPA 106. Therefore, coordination with the Natural Resources Conservation Service (NRCS) is not required.

General Comments

Please see the following attachments for supporting documentation: (1) Figures 1, 2, 3.1 through 3.4, and 4.1 through 4.4, (2) USFWS T&E Species List, (3) TPWD Bastrop County T&E Species List, (4) Species Impact Table, (5) EMST excel, (6) Field-verified Vegetation MOU Summary Table, (7) Web Soil Survey, (8) FPPA NRCS Form SCS-CPA 106, (9) Project Area Photographs, and (10) NDD Element of Occurrence Report.

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 August 2, 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 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 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)

The proposed project would convert farmland subject to the FPPA to a nonagricultural, transportation use. However, the combined scores of the relative value of the farmland and the site assessment completed by TxDOT do not warrant further consideration for protection and no additional sites need to be evaluated.

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)

Figures

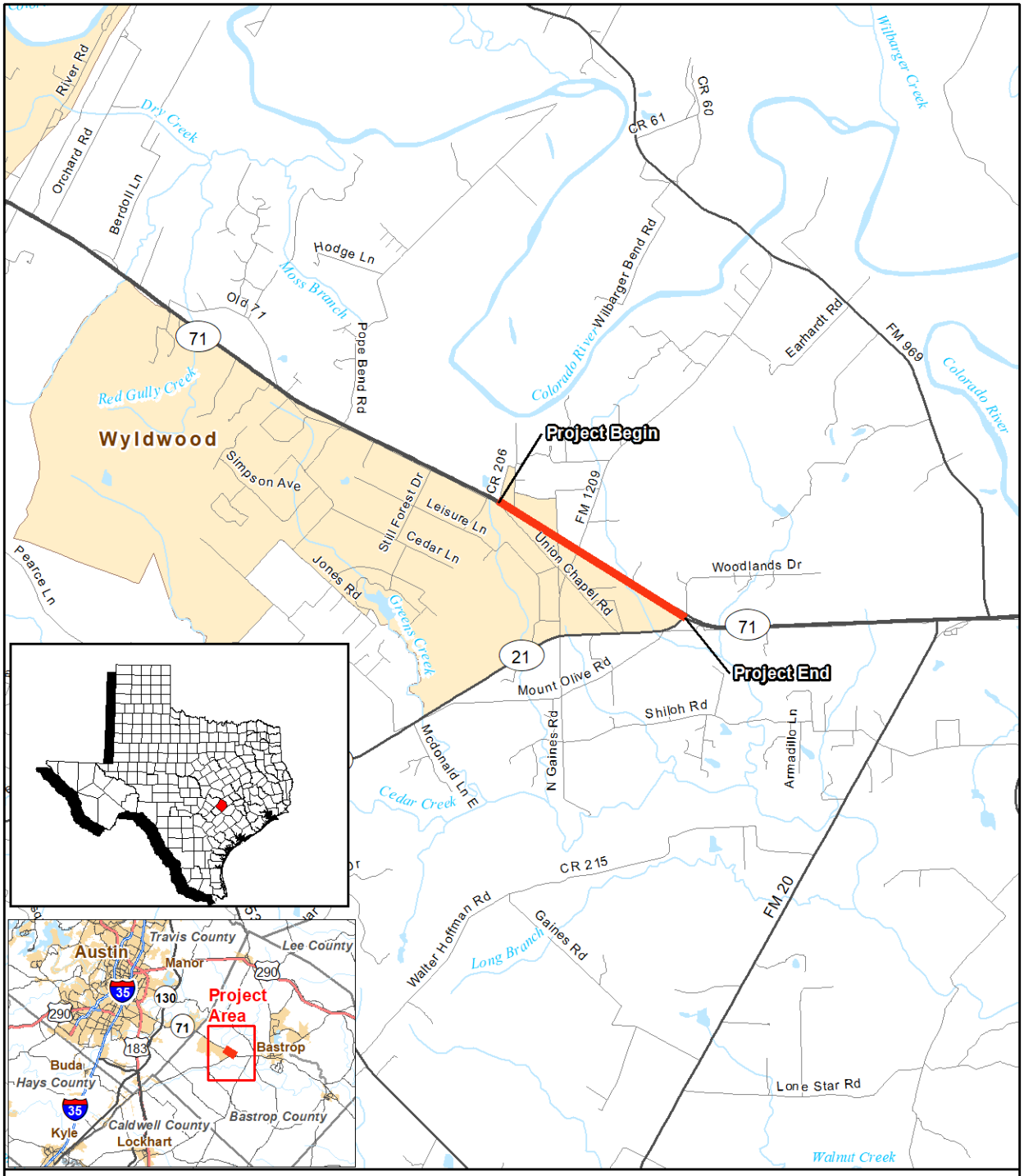
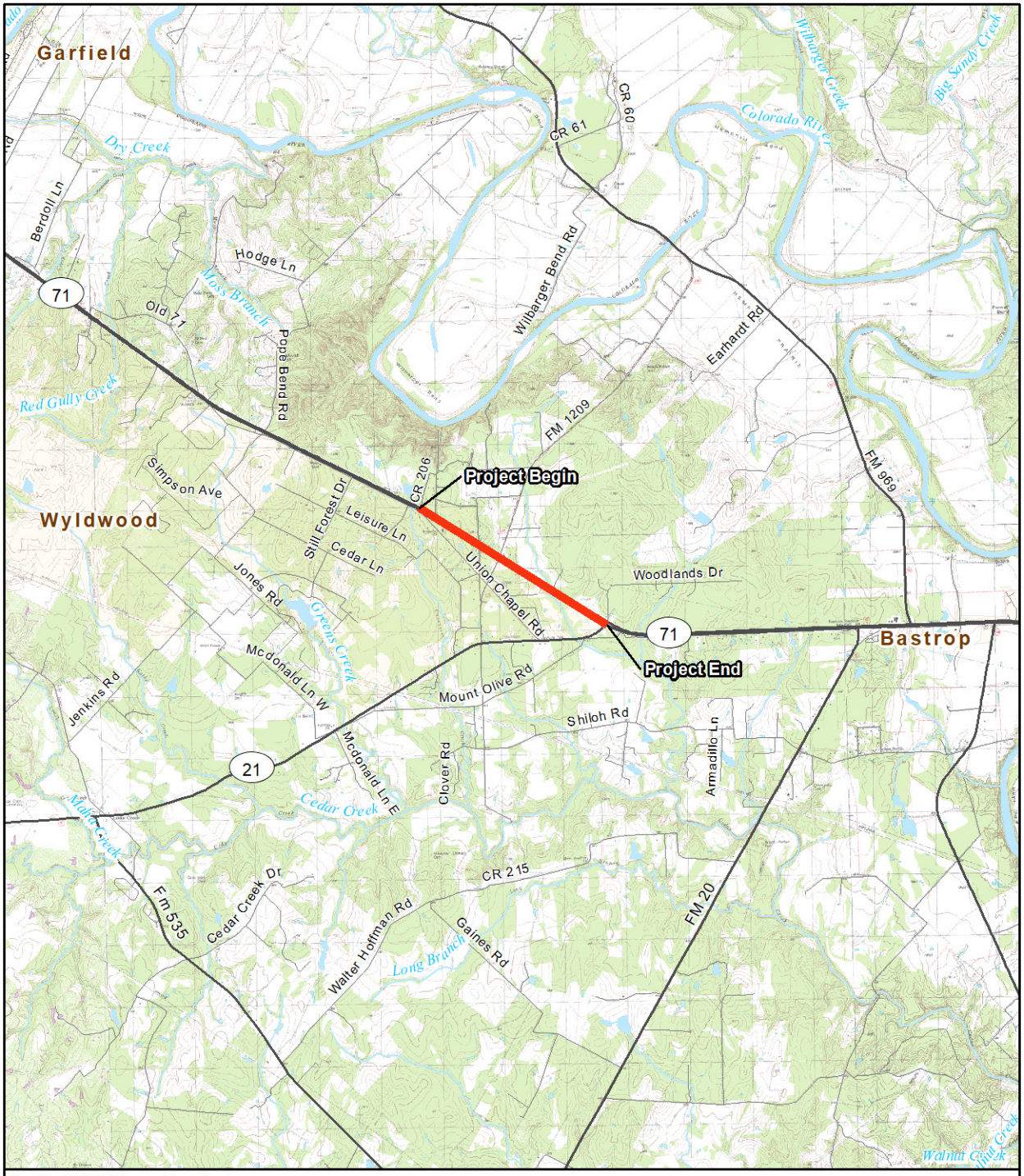


Figure 1
Project Location on County Map
SH 71 at FM 1209 from CR 206 to SH 21
Bastrop County, Texas
CSJ: 0265-03-041

Figures



Base Map: 7.5' USGS topographic quadrangle:
Webberville, Texas
(1987, Map ID No. 30097-B5)
Utley, Texas
(1982, Map ID No. 30097-B4)
Bastrop SW, Texas
(1982, Map ID No. 30097-A4)
Lytton Springs, Texas
(1968, Map ID No. 30097-A5)

Project Location

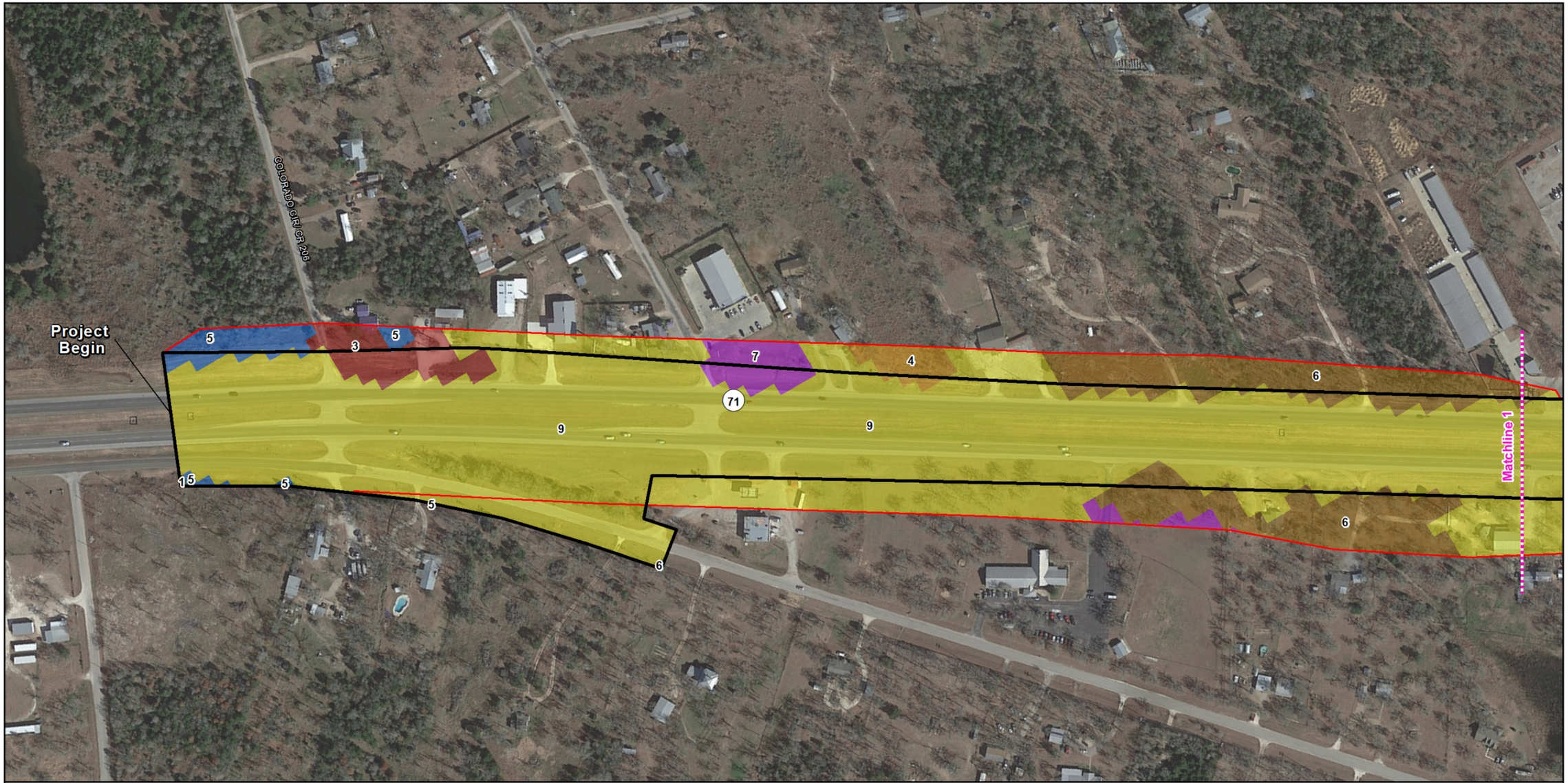
N
W E
S

1:100,000

Miles
0 0.5 1 1.5 2

Kilometers
0 1 2 3 4

Figure 2
Project Location on Topographic Map
SH 71 at FM 1209 from CR 206 to SH 21
Bastrop County, Texas
CSJ: 0265-03-041



Existing Right-of-way
Proposed Right-of-way

EMST

- 1: Central Texas: Riparian Hardwood / Evergreen Forest
- 3: Native Invasive: Juniper Shrubland
- 4: Native Invasive: Mesquite Shrubland
- 5: Post Oak Savanna: Post Oak / Yaupon Motte and Woodland
- 6: Post Oak Savanna: Post Oak Motte and Woodland
- 7: Post Oak Savanna: Savanna Grassland
- 9: Urban Low Intensity

1:3,000

Feet

0 100 200 300

Base Map Image: 2018 Google Imagery

Figure 3.1
Ecological Mapping Systems of Texas
SH 71 at FM 1209 from CR 206 to SH 21
Bastrop County, Texas
CSJ: 0265-03-041

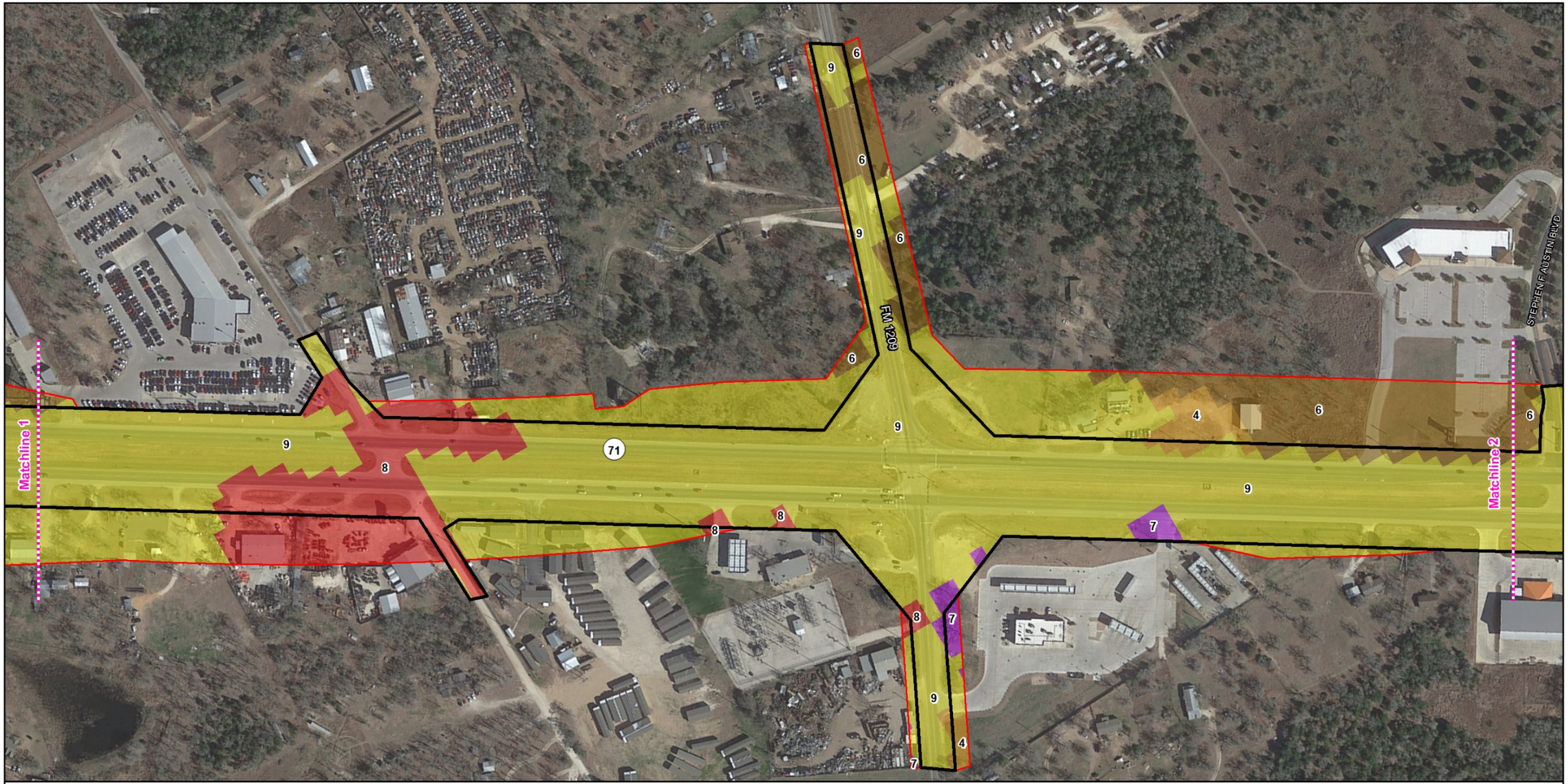


Figure 3.2
Ecological Mapping Systems of Texas
SH 71 at FM 1209 from CR 206 to SH 21
Bastrop County, Texas
CSJ: 0265-03-041

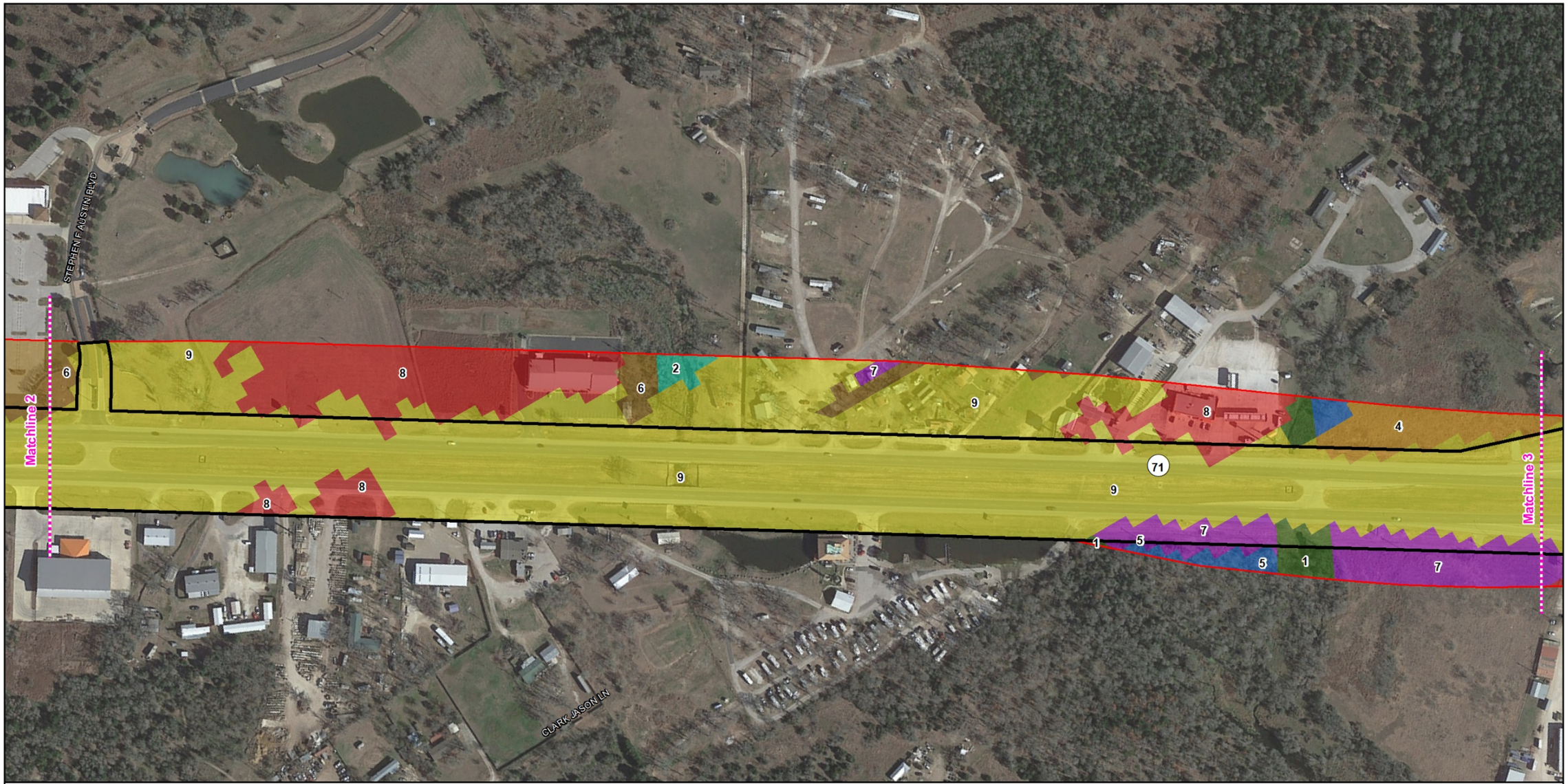
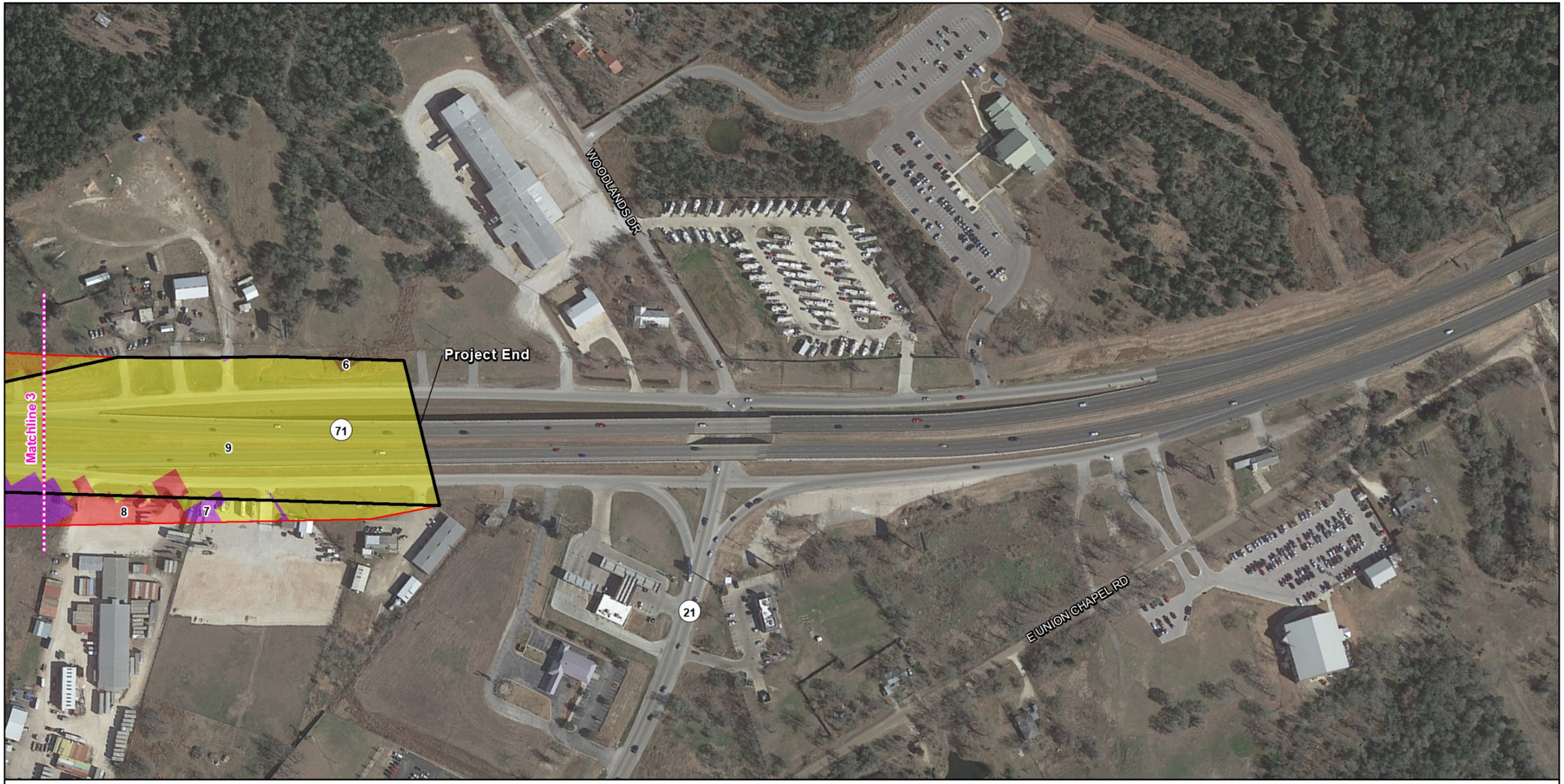


Figure 3.3
Ecological Mapping Systems of Texas
SH 71 at FM 1209 from CR 206 to SH 21
Bastrop County, Texas
CSJ: 0265-03-041



Existing Right-of-way
Proposed Right-of-way
EMST
4: Native Invasive: Mesquite Shrubland
6: Post Oak Savanna: Post Oak Motte and Woodland
7: Post Oak Savanna: Savanna Grassland
8: Urban High Intensity
9: Urban Low Intensity

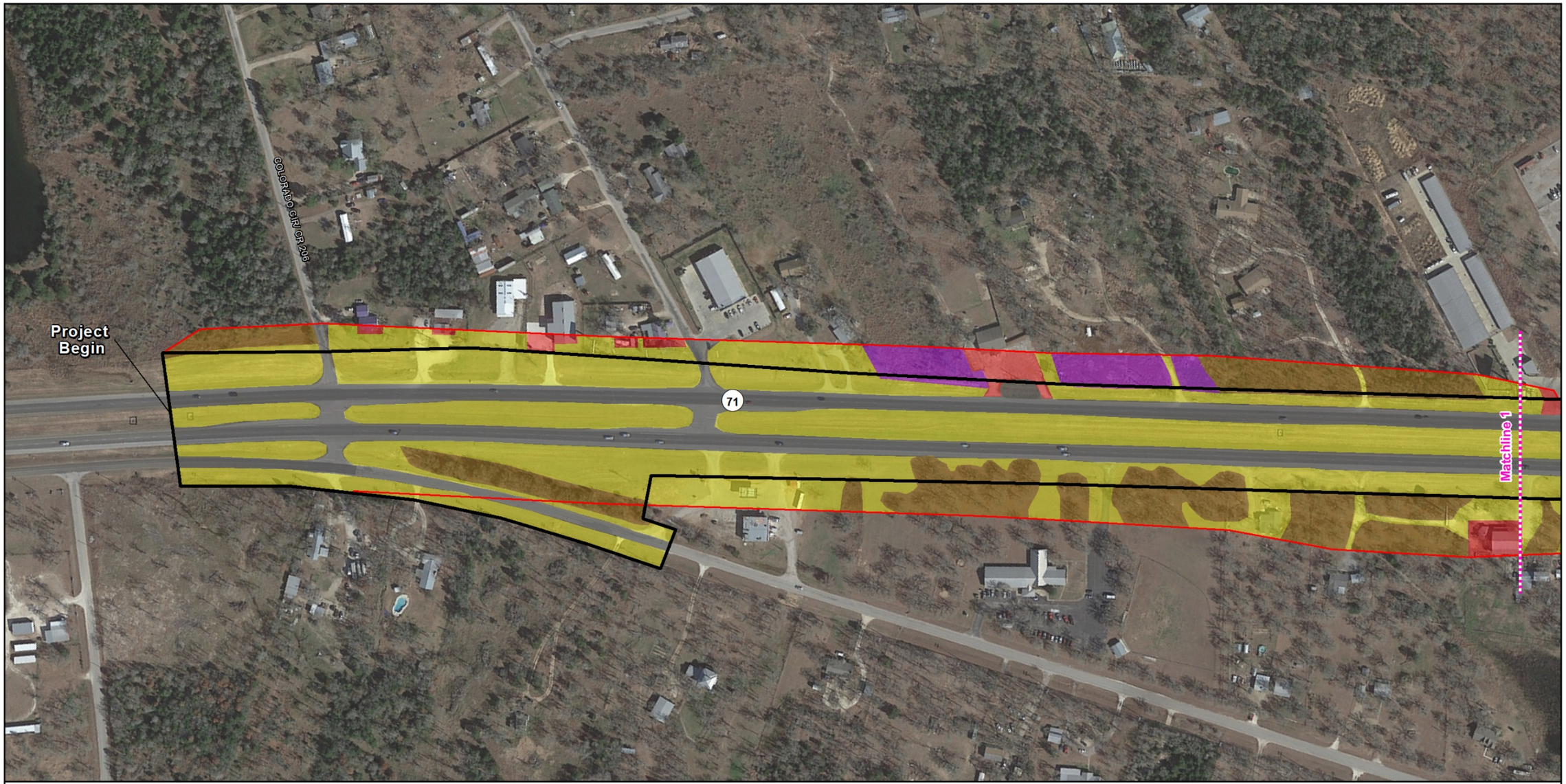
1:3,000

Feet

0 100 200 300

Base Map Image: 2018 Google Imagery

Figure 3.4
Ecological Mapping Systems of Texas
SH 71 at FM 1209 from CR 206 to SH 21
Bastrop County, Texas
CSJ: 0265-03-041



Existing Right-of-way

Proposed Right-of-way

Field-Verified Vegetation Types

3: Existing Transportation

5: Post Oak Savanna: Post Oak Motte and Woodland

6: Post Oak Savanna: Savanna Grassland

7: Urban High Intensity

8: Urban Low Intensity

1:3,000

Feet

0 100 200 300

Base Map Image: 2018 Google Imagery

Figure 4.1
Field-Verified Vegetation Types in the Project Area
SH 71 at FM 1209 from CR 206 to SH 21
Bastrop County, Texas
CSJ: 0265-03-041

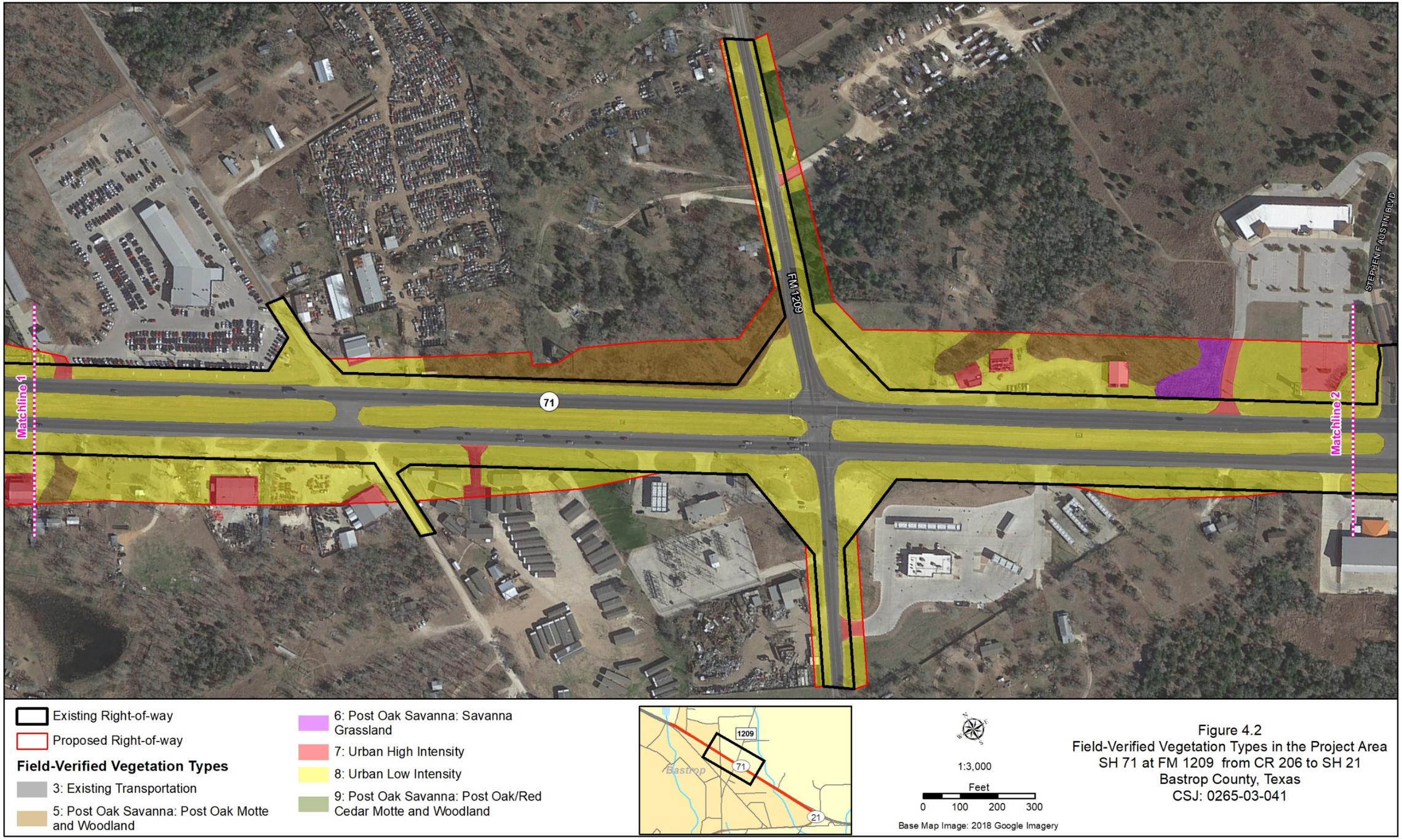


Figure 4.2
Field-Verified Vegetation Types in the Project Area
SH 71 at FM 1209 from CR 206 to SH 21
Bastrop County, Texas
CSJ: 0265-03-041

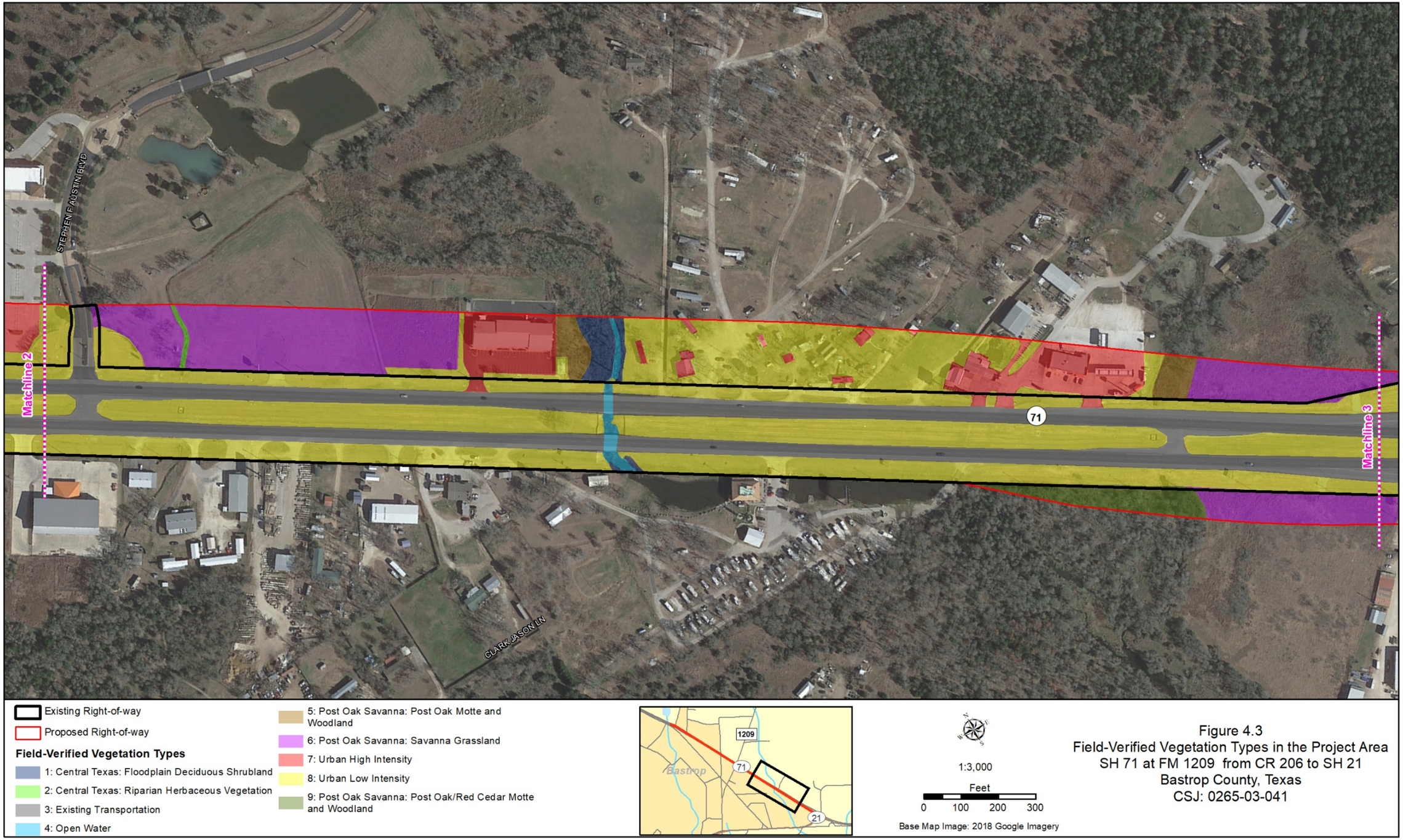
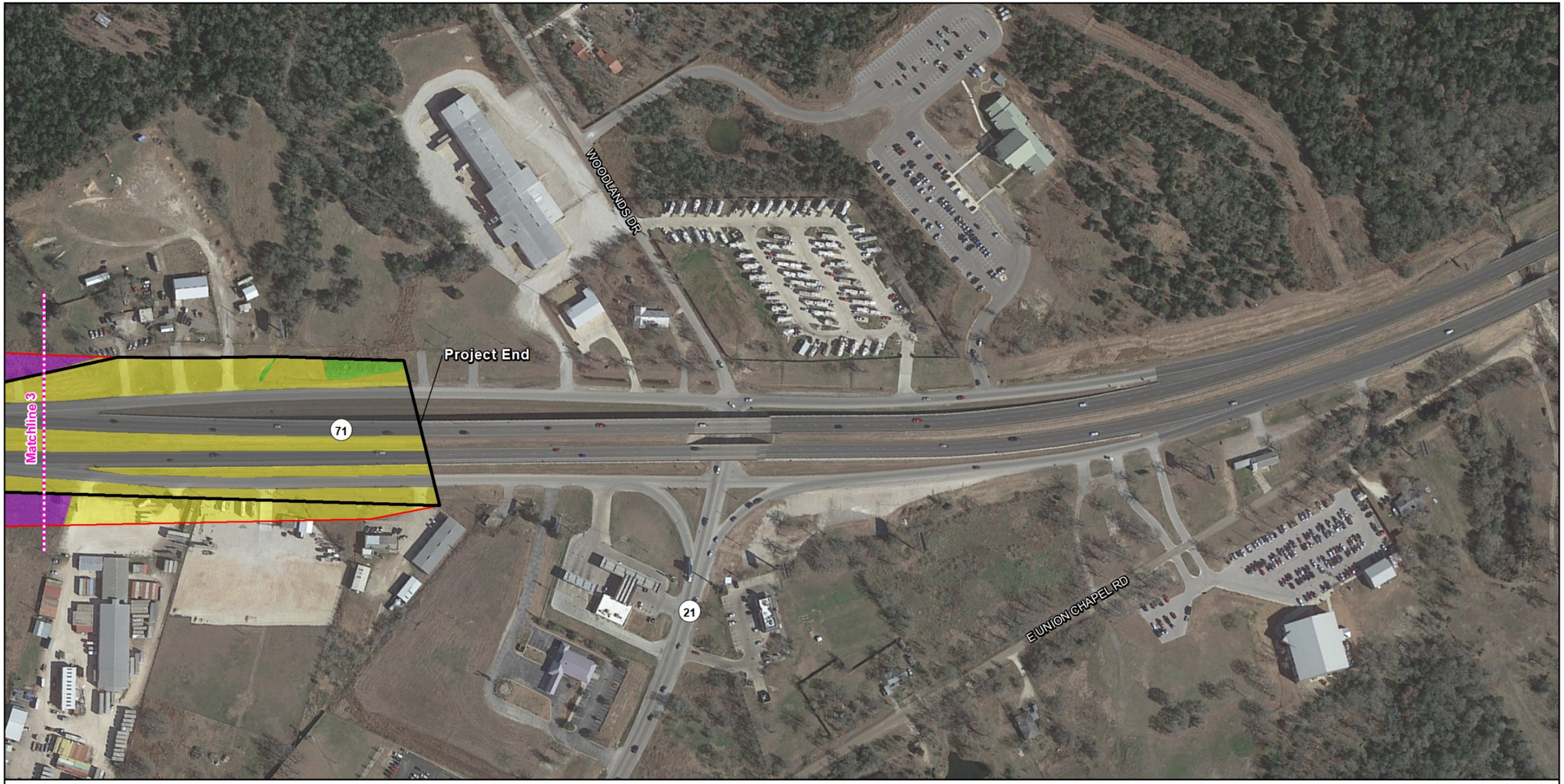


Figure 4.3
Field-Verified Vegetation Types in the Project Area
SH 71 at FM 1209 from CR 206 to SH 21
Bastrop County, Texas
CSJ: 0265-03-041



Existing Right-of-way

Proposed Right-of-way

Field-Verified Vegetation Types

2: Central Texas: Riparian Herbaceous Vegetation

3: Existing Transportation

6: Post Oak Savanna: Savanna Grassland

8: Urban Low Intensity

1:3,000

Feet

0 100 200 300

Base Map Image: 2018 Google Imagery

Figure 4.4
Field-Verified Vegetation Types in the Project Area
SH 71 at FM 1209 from CR 206 to SH 21
Bastrop County, Texas
CSJ: 0265-03-041

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: August 02, 2018
Consultation Code: 02ETAU00-2018-SLI-1316
Event Code: 02ETAU00-2018-E-02586
Project Name: SH 71 at FM 1209

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, 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-1316

Event Code: 02ETAU00-2018-E-02586

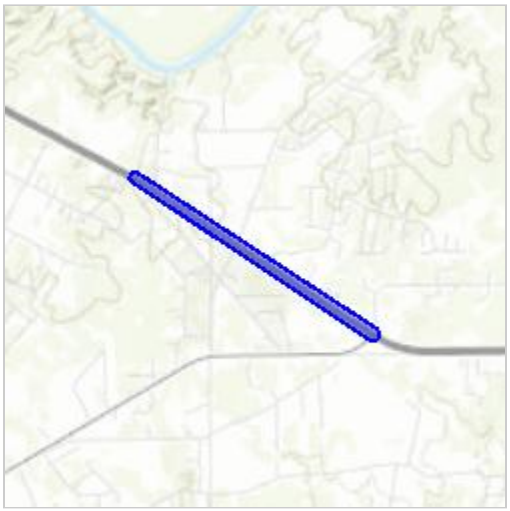
Project Name: SH 71 at FM 1209

Project Type: TRANSPORTATION

Project Description: Improvements to intersection of SH 71 and FM 1209

Project Location:

Approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/place/30.12103861324507N97.43044853210449W



Counties: Bastrop, TX

Endangered Species Act Species

There is a total of 9 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
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
Houston Toad *Bufo houstonensis* There is **final** critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/2206	Endangered

Clams

NAME	STATUS
Smooth Pimpleback *Cyclonaias houstonensis* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/8967	Candidate
Texas Fatmucket *Lampsilis bracteata* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9041	Candidate
Texas Fawnsfoot *Truncilla macrodon* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/8965	Candidate

Flowering Plants

NAME	STATUS
Navasota Ladies'-tresses *Spiranthes parksii* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/1570	Endangered

Critical habitats

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

BASTROP COUNTY

AMPHIBIANS

		Federal Status	State Status
Houston toad	*Anaxyrus houstonensis*	LE	E

endemic; sandy substrate, 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

BIRDS

		Federal Status	State Status
American Peregrine Falcon	*Falco peregrinus anatum*	DL	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.

Arctic Peregrine Falcon	*Falco peregrinus tundrius*	DL	

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.

Bald Eagle	*Haliaeetus leucocephalus*	DL	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

Henslow's Sparrow *Ammodramus henslowii*

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

Interior Least Tern	*Sternula antillarum athalassos*	LE	E

The 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

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

Peregrine Falcon	*Falco peregrinus*	DL	T

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.

BASTROP COUNTY

BIRDS

		Federal Status	State Status
Red Knot	*Calidris canutus rufa*	LT	

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.

Sprague's Pipit *Anthus spragueii*

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.

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

Whooping Crane *Grus americana* LE E

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

Wood Stork *Mycteria americana* T

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

CRUSTACEANS

		Federal Status	State Status
A crayfish	*Procambarus texanus*		

ponds

FISHES

		Federal Status	State Status
Blue sucker	*Cycleptus elongatus*		T

larger portions of major rivers in Texas; usually in channels and flowing pools with a moderate current; bottom type usually of exposed bedrock, perhaps in combination with hard clay, sand, and gravel; adults winter in deep pools and move upstream in spring to spawn on riffles

BASTROP COUNTY

FISHES

		Federal Status	State Status
Guadalupe bass	*Micropterus treculii*		

endemic to perennial streams of the Edward's Plateau region; introduced in Nueces River system

MAMMALS

		Federal Status	State Status
Cave myotis	*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

Elliot's short-tailed shrew	*Blarina hylophaga hylophaga*		

sandy areas in live oak mottes, grassy areas with a Loblolly pine (Pinus taeda) overstory, and grassy areas near Post oak (Quercus stellata) stands; burrows extensively under leaf litter, logs, and into soil, but ground cover is not required; needs soft damp soils for ease of burrowing

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

Red wolf	*Canis rufus*	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
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

Smooth pimpleback	*Quadrula 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

Texas pimpleback	*Quadrula petrina*	C	T

mud, gravel and sand substrates, generally in areas with slow flow rates; Colorado and Guadalupe river basins

BASTROP COUNTY

REPTILES

		Federal Status	State Status
Texas garter snake	*Thamnophis sirtalis annectens*		

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

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 into soil, enters rodent burrows, or hides under rock when inactive; breeds March-September

Timber 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

PLANTS

		Federal Status	State Status
Green beebalm	*Monarda viridissima*		

Endemic perennial herb of the Carrizo Sands; deep, well-drained sandy soils in openings of post oak woodlands; flowers white.

Navasota ladies'-tresses	*Spiranthes parksii*	LE	E

Texas endemic; openings in post oak woodlands in sandy loams along upland drainages or intermittent streams, often in areas with suitable hydrologic factors, such as a perched water table associated with the underlying claypan; flowering populations fluctuate widely from year to year, an individual plant does not flower every year; flowering late October-early November (-early December)

Sandhill woollywhite *Hymenopappus carrizoanus*

Texas endemic; disturbed or open areas in grasslands and post oak woodlands on deep sands derived from the Carrizo Sand and similar Eocene formations; flowering April-June

Shinner's sunflower *Helianthus occidentalis ssp plantagineus*

mostly in prairies on the Coastal Plain, with several slightly disjunct populations in the Pineywoods and South Texas Brush Country

Texas fescue *Festuca versuta*

GLOBAL RANK: G3; Occurs in mesic woodlands on limestone-derived soils on stream terraces and canyon slopes; Perennial; Flowering/Fruiting April-June

Texas peachbush *Prunus texana*

GLOBAL RANK: G3; Occurs at scattered sites in various well drained sandy situations; deep sand, plains and sand hills, grasslands, oak woods, 0-200 m elevation; Perennial; Flowering Feb-Mar; Fruiting Apr-Jun

Texas sandmint *Rhododon ciliatus*

BASTROP COUNTY

PLANTS

Federal Status State Status

GLOBAL RANK: G3; Open sandy areas in the Post Oak Belt of east-central Texas; Annual; Flowering April-Aug; Fruiting May-Aug

Species Impact Table

Federal and State-listed Threatened, Endangered, and Rare Species of Potential Occurrence in Bastrop County, Texas

Species	Federal Status	State Status	Description of Suitable Habitat	Species Impact/ Effect	Specific Project Information
AMPHIBIANS					
Houston Toad *Anaxyrus houstonensis*	E	E	Endemic; found in sandy substrate, 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 effect	Suitable water features and soils do not occur within the project area.
BIRDS					
American Peregrine Falcon *Falco peregrinus anatum*	DL	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 U.S. 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 impact	There are no lake shores, coastlines, or barrier islands in the vicinity of the project area, but peregrine falcons are a possible migrant and have been observed near the project area. However, the proposed construction activities are not expected to impact individuals of the species.
Arctic Peregrine Falcon *Falco peregrinus tundrius*	DL	SGCN	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.	No impact	There are no lake shores, coastlines, or barrier islands in the vicinity of the project area, but peregrine falcons are a possible migrant and have been observed near the project area. However, the proposed construction activities are not expected to impact individuals of the species.
Bald Eagle *Haliaeetus leucocephalus*	DL	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 impact	No large rivers or lakes are located within or adjacent to the project area.
Henslow's Sparrow *Ammodramus henslowii*	–	SGCN	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 impact	No fields with lots of bunch grasses along with vines and brambles occur in or adjacent to the project area.

Species Impact Table

Federal and State-listed Threatened, Endangered, and Rare Species of Potential Occurrence in Bastrop County, Texas

Species	Federal Status	State Status	Description of Suitable Habitat	Species Impact/ Effect	Specific Project Information
Interior Least Tern *Sterna antillarum athalassos*	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 effect	There are no braided streams or rivers in the project area, and this species only needs to be considered for wind energy projects according to USFWS.
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 impact	There are no plowed, bare dirt fields in or adjacent to the project area.
Peregrine Falcon *Falco peregrinus*	DL	T	Both subspecies migrate across the state from more northern breeding areas in U.S. 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.	No impact	There are no lake shores, coastlines, or barrier islands in the vicinity of the project area, but peregrine falcons are a possible migrant and have been observed near the project area. However, the proposed construction activities are not expected to impact individuals of the species.
Piping Plover *Charadrius melodus*	T[1]	SGCN	Wintering migrant along the Texas Gulf Coast; beaches and bayside mud or salt flats.	No effect	Potential migrant through the project area, however, any occurrence of this species would be considered incidental. Additionally, this species only needs to be considered for wind energy projects according to USFWS.

Species Impact Table

Federal and State-listed Threatened, Endangered, and Rare Species of Potential Occurrence in Bastrop County, Texas

Species	Federal Status	State Status	Description of Suitable Habitat	Species Impact/ Effect	Specific Project Information
Red Knot *Calidris canutus rufa*	T	SGCN	Migrates long distances in flocks northward through the contiguous U.S. mainly April-June and southward July-October; 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 counties; primarily seacoasts on tidal flats and beaches, and herbaceous wetlands.	No effect	No beaches, tidal flats, or other sea shoreline feature are located within or adjacent to the project area. Additionally, this species only needs to be considered for wind energy projects according to USFWS.
Sprague's Pipit *Anthus spragueii*	–	SGCN	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 impact	No native upland prairie is present in or adjacent to the project area.
Western Burrowing Owl *Athene cunicularia hypugaea*	–	SGCN	Found in 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.	May impact	Pasture, rangeland, and maintained ROW in the project area may provide suitable owl habitat.
Whooping Crane *Grus americana*	E	E	Potential migrant via plains throughout most of State to coast; winters in coastal marshes of Aransas, Calhoun, and Refugio counties.	No effect	No potential migrant stopover habitat is present within or adjacent to project area. This species is potential migrant in the area, but presence in the project area would be incidental and not likely.

Species Impact Table

Federal and State-listed Threatened, Endangered, and Rare Species of Potential Occurrence in Bastrop County, Texas

Species	Federal Status	State Status	Description of Suitable Habitat	Species Impact/ Effect	Specific Project Information
Wood Stork *Mycteria americana*	–	T	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 impact	This species is a potential migrant in the area, but presence in the project area would be incidental and not likely.
CRUSTACEANS					
A Crayfish *Procambarus texanus*	–	SGCN	Found in ponds.	No impact	No ponds would be impacted by the proposed project.
FISHES					
Blue Sucker *Cycleptus elongatus*	–	T	Found in larger portions of major rivers in Texas; usually in channels and flowing pools with a moderate current; bottom type usually of exposed bedrock, perhaps in combination with hard clay, sand, and gravel; adults winter in deep pools and move upstream in spring to spawn on riffles.	No impact	There are no suitable sized rivers or streams within the project area.
Guadalupe Bass *Micropterus treculii*	–	SGCN	Endemic to perennial streams of the Edward's Plateau region; introduced in Nueces River system.	No impact	There are no perennial streams within the project area.
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 *(Petrochelidon 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.	May impact	Potential suitable habitat is located in the project area under bridges. However, no documented occurrences are known from the project area, and no bats or evidence of bats were observed during the field visit. Bat BMPs will be implemented.
Elliot's Short-tailed Shrew *Blarina hylophaga hylophaga*	–	SGCN	Found in sandy areas in live oak mottes, grassy areas with a Loblolly pine (*Pinus taeda*) overstory, and grassy areas near Post oak (*Quercus stellata*) stands; burrows extensively under leaf litter, logs, and into soil, but ground cover is not required; needs soft damp soils for ease of burrowing.	No impact	This species is known from loblolly pine forests farther east in Bastrop County.

Species Impact Table

Federal and State-listed Threatened, Endangered, and Rare Species of Potential Occurrence in Bastrop County, Texas

Species	Federal Status	State Status	Description of Suitable Habitat	Species Impact/ Effect	Specific Project Information
Plains Spotted Skunk *Spilogale putorius interrupta*	–	SGCN	Catholic; open fields, prairies, croplands, fence rows, farmyards, forest edges, and woodlands; prefers wooded, brushy areas and tallgrass prairie.	May impact	The project area contains woodland/brush edges that could provide suitable habitat for the species.
Red Wolf *Canis rufus*	E[2]	E	Extirpated; formerly known throughout eastern half of Texas in brushy and forested areas, as well as coastal prairies.	No effect	This species is extirpated from Texas.
MOLLUSKS					
False Spike Mussel *Quadrula 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 impact	Streams in the project area are intermittent; therefore, there is no suitable aquatic habitat within the project area.
Smooth Pimpleback *Quadrula houstonensis*	C	T	Found in 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 impact	Streams in the project area are intermittent; therefore, there is no suitable aquatic habitat within the project area.
Texas Fatmucket *Lampsilis bracteata*	C[1]	T	Found in streams and rivers on sand, mud, and gravel substrates; intolerant of impoundment; broken bedrock and course gravel or sand in moderately flowing water; Colorado and Guadalupe River basins.	No impact	Streams in the project area are intermittent; therefore, there is no suitable aquatic habitat within the project area.
Texas Fawnsfoot *Truncilla macrodon*	C[1]	SGCN	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 impact	Streams in the project area are intermittent; therefore, there is no suitable aquatic habitat within the project area.
Texas Pimpleback *Quadrula petrina*	C[2]	T	Found in mud, gravel and sand substrates, generally in areas with slow flow rates; Colorado and Guadalupe river basins.	No impact	Streams in the project area are intermittent; therefore, there is no suitable aquatic habitat within the project area.
REPTILES					

Species Impact Table

Federal and State-listed Threatened, Endangered, and Rare Species of Potential Occurrence in Bastrop County, Texas

Species	Federal Status	State Status	Description of Suitable Habitat	Species Impact/ Effect	Specific Project Information
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.	May impact	Wet or moist areas along streams could provide potential habitat.
Texas Horned Lizard *Phrynosoma cornutum*	–	T	Found in 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 impact	No arid or semi-arid areas with sparse vegetation are located within or adjacent to the project area.
Timber Rattlesnake *Crotalus horridus*	–	T	Found in 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.	May impact	Potential habitat occurs within woodland areas, particularly along drainages, throughout the project area.
PLANTS					
Green Beebalm *Monarda viridissima*	–	SGCN	Endemic perennial herb of the Carrizo Sands; deep, well-drained sandy soils in openings of post oak woodlands; flowers white.	No impact	The project area is not within the Carrizo Sands formation.
Navasota Ladies'-tresses *Spiranthes parksii*	E	E	Texas endemic; openings in post oak woodlands in sandy loams along upland drainages or intermittent streams, often in areas with suitable hydrologic factors, such as a perched water table associated with the underlying claypan; flowering populations fluctuate widely from year to year, an individual plant does not flower every year; flowering late October to November or early December).	No effect	Although post oak woodlands occur within the project area, they are not considered of high quality woodlands for this species, and combinations of suitable hydrologic factors and soils are not present within the project area.
Sandhill Woollywhite *Hymenopappus carrizoanus*	–	SGCN	Texas endemic; disturbed or open areas in grasslands and post oak woodlands on deep sands derived from the Carrizo Sand and similar Eocene formations; flowering April-June.	May impact	Potential suitable habitat occurs within grassland and woodland areas in the project area.
Shinner's Sunflower *Helianthus occidentalis ssp plantagineus*	–	SGCN	Found mostly in prairies on the Coastal Plain, with several slightly disjunct populations in the Pineywoods and South Texas Brush Country.	No impact	No coastal plains or pinewoods occur within the project area.

Species Impact Table

Federal and State-listed Threatened, Endangered, and Rare Species of Potential Occurrence in Bastrop County, Texas

Species	Federal Status	State Status	Description of Suitable Habitat	Species Impact/ Effect	Specific Project Information
Texas Fescue *Festuca versuta*	–	SGCN	Occurs in mesic woodlands on limestone-derived soils on stream terraces and canyon slopes; perennial; flowering/fruiting April-June.	May impact	Woodlands on stream terraces occur within the project area, the Texas NDD data shows historic occurrences of the species within 1.5 mile of the project area.
Texas Peachbush *Prunus texana*	–	SGCN	Occurs at scattered sites in various well drained sandy situations; deep sand, plains and sand hills, grasslands, oak woods, 0-200 meters in elevation; perennial; flowering February-March; fruiting April-June.	May impact	Potential habitat occurs in grasslands and woodlands in the proposed ROW.
Texas Sandmint *Rhododon ciliatus*	–	SGCN	Open sandy areas in the Post Oak Belt of east-central Texas; annual; flowering April-August; fruiting May-August.	May impact	Potential suitable habitat occurs within woodland areas throughout the project area.

E – Endangered; T – Threatened; C – Candidate; DL – Delisted taxon; "—" – Rare, but with no regulatory listing status; SGCN – Species of Greatest Conservation Need in Texas;

[1] The TPWD does not list these species for Bastrop County; however, these species are listed on the USFWS's Official Species List.

[2] The USFWS does not list these species for Bastrop County; however, these species are listed on TPWD's Bastrop County Species List.

Sources: USFWS IPaC Official Species List, Generated August 2, 2018; TPWD Rare, Threatened, and Endangered Species of Texas by County, Bastrop County (revised May 16, 2016 and retrieved on August 6, 2018); and Field Visit (August 2018).

FID_Distri	Veg_ID	Common	EcoClass_I	EcoSystem	MOU_Habita	Phase	NS_Number	TPWD_Ecosy	EcoRegion	EcoRegion_	Feature_Ty
536138	604	Post Oak Savanna: Post Oak Motte and Woodland	R086AY200TX	CLAYPAN PRAIRIE PE 44-64	Post Oak Savanna	1-South	CES205.679	East-Central Texas Plains Post Oak Savanna and Woodland	East Central Texas Plains	33	VEGETATION
536241	9410	Urban High Intensity	R086AY200TX	CLAYPAN PRAIRIE PE 44-64	Urban	1-South	TPW101.003	Urban	East Central Texas Plains	33	VEGETATION
536252	9411	Urban Low Intensity	R086AY200TX	CLAYPAN PRAIRIE PE 44-64	Urban	1-South	TPW101.003	Urban	East Central Texas Plains	33	VEGETATION
536257	9411	Urban Low Intensity	R086AY200TX	CLAYPAN PRAIRIE PE 44-64	Urban	1-South	TPW101.003	Urban	East Central Texas Plains	33	VEGETATION
537438	604	Post Oak Savanna: Post Oak Motte and Woodland	R087AY237TX	Sandy Loam PE 48-68	Post Oak Savanna	1-South	CES205.679	East-Central Texas Plains Post Oak Savanna and Woodland	East Central Texas Plains	33	VEGETATION
537475	613	Post Oak Savanna: Post Oak / Yaupon Motte and Woodland	R087AY237TX	Sandy Loam PE 48-68	Post Oak Savanna	1-South	CES205.679	East-Central Texas Plains Post Oak Savanna and Woodland	East Central Texas Plains	33	VEGETATION
537476	613	Post Oak Savanna: Post Oak / Yaupon Motte and Woodland	R087AY237TX	Sandy Loam PE 48-68	Post Oak Savanna	1-South	CES205.679	East-Central Texas Plains Post Oak Savanna and Woodland	East Central Texas Plains	33	VEGETATION
537529	9106	Native Invasive: Mesquite Shrubland	R087AY237TX	Sandy Loam PE 48-68	Disturbed Prairie	1-South	TPW101.001	Native Invasive Shrub and Woodland	East Central Texas Plains	33	VEGETATION
537544	9410	Urban High Intensity	R087AY237TX	Sandy Loam PE 48-68	Urban	1-South	TPW101.003	Urban	East Central Texas Plains	33	VEGETATION
537546	9410	Urban High Intensity	R087AY237TX	Sandy Loam PE 48-68	Urban	1-South	TPW101.003	Urban	East Central Texas Plains	33	VEGETATION
537559	9411	Urban Low Intensity	R087AY237TX	Sandy Loam PE 48-68	Urban	1-South	TPW101.003	Urban	East Central Texas Plains	33	VEGETATION
537561	9411	Urban Low Intensity	R087AY237TX	Sandy Loam PE 48-68	Urban	1-South	TPW101.003	Urban	East Central Texas Plains	33	VEGETATION
537571	9411	Urban Low Intensity	R087AY237TX	Sandy Loam PE 48-68	Urban	1-South	TPW101.003	Urban	East Central Texas Plains	33	VEGETATION
537610	607	Post Oak Savanna: Savanna Grassland	R087AY237TX	Sandy Loam PE 48-68	Post Oak Savanna	1-South	CES205.679	East-Central Texas Plains Post Oak Savanna and Woodland	East Central Texas Plains	33	VEGETATION
537614	607	Post Oak Savanna: Savanna Grassland	R087AY237TX	Sandy Loam PE 48-68	Post Oak Savanna	1-South	CES205.679	East-Central Texas Plains Post Oak Savanna and Woodland	East Central Texas Plains	33	VEGETATION
537626	1903	Central Texas: Riparian Hardwood / Evergreen Forest	R087AY237TX	Sandy Loam PE 48-68	Riparian	1-South	CES205.709	Southeastern Great Plains Riparian Forest	East Central Texas Plains	33	VEGETATION
537627	1903	Central Texas: Riparian Hardwood / Evergreen Forest	R087AY237TX	Sandy Loam PE 48-68	Riparian	1-South	CES205.709	Southeastern Great Plains Riparian Forest	East Central Texas Plains	33	VEGETATION
537838	604	Post Oak Savanna: Post Oak Motte and Woodland	R087AY237TX	Sandy Loam PE 48-68	Post Oak Savanna	1-South	CES205.679	East-Central Texas Plains Post Oak Savanna and Woodland	East Central Texas Plains	33	VEGETATION
537840	604	Post Oak Savanna: Post Oak Motte and Woodland	R087AY237TX	Sandy Loam PE 48-68	Post Oak Savanna	1-South	CES205.679	East-Central Texas Plains Post Oak Savanna and Woodland	East Central Texas Plains	33	VEGETATION
537843	604	Post Oak Savanna: Post Oak Motte and Woodland	R087AY237TX	Sandy Loam PE 48-68	Post Oak Savanna	1-South	CES205.679	East-Central Texas Plains Post Oak Savanna and Woodland	East Central Texas Plains	33	VEGETATION
537844	604	Post Oak Savanna: Post Oak Motte and Woodland	R087AY237TX	Sandy Loam PE 48-68	Post Oak Savanna	1-South	CES205.679	East-Central Texas Plains Post Oak Savanna and Woodland	East Central Texas Plains	33	VEGETATION
538061	613	Post Oak Savanna: Post Oak / Yaupon Motte and Woodland	R087AY237TX	Sandy Loam PE 48-68	Post Oak Savanna	1-South	CES205.679	East-Central Texas Plains Post Oak Savanna and Woodland	East Central Texas Plains	33	VEGETATION
538068	613	Post Oak Savanna: Post Oak / Yaupon Motte and Woodland	R087AY237TX	Sandy Loam PE 48-68	Post Oak Savanna	1-South	CES205.679	East-Central Texas Plains Post Oak Savanna and Woodland	East Central Texas Plains	33	VEGETATION
538286	9106	Native Invasive: Mesquite Shrubland	R087AY237TX	Sandy Loam PE 48-68	Disturbed Prairie	1-South	TPW101.001	Native Invasive Shrub and Woodland	East Central Texas Plains	33	VEGETATION
538298	9106	Native Invasive: Mesquite Shrubland	R087AY237TX	Sandy Loam PE 48-68	Disturbed Prairie	1-South	TPW101.001	Native Invasive Shrub and Woodland	East Central Texas Plains	33	VEGETATION
538321	9410	Urban High Intensity	R087AY237TX	Sandy Loam PE 48-68	Urban	1-South	TPW101.003	Urban	East Central Texas Plains	33	VEGETATION
538323	9410	Urban High Intensity	R087AY237TX	Sandy Loam PE 48-68	Urban	1-South	TPW101.003	Urban	East Central Texas Plains	33	VEGETATION
538324	9410	Urban High Intensity	R087AY237TX	Sandy Loam PE 48-68	Urban	1-South	TPW101.003	Urban	East Central Texas Plains	33	VEGETATION
538325	9410	Urban High Intensity	R087AY237TX	Sandy Loam PE 48-68	Urban	1-South	TPW101.003	Urban	East Central Texas Plains	33	VEGETATION
538360	9411	Urban Low Intensity	R087AY237TX	Sandy Loam PE 48-68	Urban	1-South	TPW101.003	Urban	East Central Texas Plains	33	VEGETATION
538369	9411	Urban Low Intensity	R087AY237TX	Sandy Loam PE 48-68	Urban	1-South	TPW101.003	Urban	East Central Texas Plains	33	VEGETATION
538373	9411	Urban Low Intensity	R087AY237TX	Sandy Loam PE 48-68	Urban	1-South	TPW101.003	Urban	East Central Texas Plains	33	VEGETATION
538377	9411	Urban Low Intensity	R087AY237TX	Sandy Loam PE 48-68	Urban	1-South	TPW101.003	Urban	East Central Texas Plains	33	VEGETATION
538380	9411	Urban Low Intensity	R087AY237TX	Sandy Loam PE 48-68	Urban	1-South	TPW101.003	Urban	East Central Texas Plains	33	VEGETATION
538386	9411	Urban Low Intensity	R087AY237TX	Sandy Loam PE 48-68	Urban	1-South	TPW101.003	Urban	East Central Texas Plains	33	VEGETATION
538405	9411	Urban Low Intensity	R087AY237TX	Sandy Loam PE 48-68	Urban	1-South	TPW101.003	Urban	East Central Texas Plains	33	VEGETATION
538407	9411	Urban Low Intensity	R087AY237TX	Sandy Loam PE 48-68	Urban	1-South	TPW101.003	Urban	East Central Texas Plains	33	VEGETATION
538597	607	Post Oak Savanna: Savanna Grassland	R087AY237TX	Sandy Loam PE 48-68	Post Oak Savanna	1-South	CES205.679	East-Central Texas Plains Post Oak Savanna and Woodland	East Central Texas Plains	33	VEGETATION
538614	607	Post Oak Savanna: Savanna Grassland	R087AY237TX	Sandy Loam PE 48-68	Post Oak Savanna	1-South	CES205.679	East-Central Texas Plains Post Oak Savanna and Woodland	East Central Texas Plains	33	VEGETATION
538617	607	Post Oak Savanna: Savanna Grassland	R087AY237TX	Sandy Loam PE 48-68	Post Oak Savanna	1-South	CES205.679	East-Central Texas Plains Post Oak Savanna and Woodland	East Central Texas Plains	33	VEGETATION
538687	1903	Central Texas: Riparian Hardwood / Evergreen Forest	R087AY237TX	Sandy Loam PE 48-68	Riparian	1-South	CES205.709	Southeastern Great Plains Riparian Forest	East Central Texas Plains	33	VEGETATION
538782	604	Post Oak Savanna: Post Oak Motte and Woodland	R087AY229TX	Gravelly PE 48-68	Post Oak Savanna	1-South	CES205.679	East-Central Texas Plains Post Oak Savanna and Woodland	East Central Texas Plains	33	VEGETATION
538815	613	Post Oak Savanna: Post Oak / Yaupon Motte and Woodland	R087AY229TX	Gravelly PE 48-68	Post Oak Savanna	1-South	CES205.679	East-Central Texas Plains Post Oak Savanna and Woodland	East Central Texas Plains	33	VEGETATION
538817	613	Post Oak Savanna: Post Oak / Yaupon Motte and Woodland	R087AY229TX	Gravelly PE 48-68	Post Oak Savanna	1-South	CES205.679	East-Central Texas Plains Post Oak Savanna and Woodland	East Central Texas Plains	33	VEGETATION
538822	613	Post Oak Savanna: Post Oak / Yaupon Motte and Woodland	R087AY229TX	Gravelly PE 48-68	Post Oak Savanna	1-South	CES205.679	East-Central Texas Plains Post Oak Savanna and Woodland	East Central Texas Plains	33	VEGETATION
538867	9411	Urban Low Intensity	R087AY229TX	Gravelly PE 48-68	Urban	1-South	TPW101.003	Urban	East Central Texas Plains	33	VEGETATION
538883	9105	Native Invasive: Juniper Shrubland	R087AY229TX	Gravelly PE 48-68	Disturbed Prairie	1-South	TPW101.001	Native Invasive Shrub and Woodland	East Central Texas Plains	33	VEGETATION
538966	604	Post Oak Savanna: Post Oak Motte and Woodland	R086AY200TX	CLAYPAN PRAIRIE PE 44-64	Post Oak Savanna	1-South	CES205.679	East-Central Texas Plains Post Oak Savanna and Woodland	East Central Texas Plains	33	VEGETATION
538999	1904	Central Texas: Riparian Hardwood Forest	R086AY200TX	CLAYPAN PRAIRIE PE 44-64	Riparian	1-South	CES205.709	Southeastern Great Plains Riparian Forest	East Central Texas Plains	33	VEGETATION
539029	9410	Urban High Intensity	R086AY200TX	CLAYPAN PRAIRIE PE 44-64	Urban	1-South	TPW101.003	Urban	East Central Texas Plains	33	VEGETATION
539037	9411	Urban Low Intensity	R086AY200TX	CLAYPAN PRAIRIE PE 44-64	Urban	1-South	TPW101.003	Urban	East Central Texas Plains	33	VEGETATION
539038	9411	Urban Low Intensity	R086AY200TX	CLAYPAN PRAIRIE PE 44-64	Urban	1-South	TPW101.003	Urban	East Central Texas Plains	33	VEGETATION
539045	9411	Urban Low Intensity	R086AY200TX	CLAYPAN PRAIRIE PE 44-64	Urban	1-South	TPW101.003	Urban	East Central Texas Plains	33	VEGETATION
539083	1903	Central Texas: Riparian Hardwood / Evergreen Forest	R086AY200TX	CLAYPAN PRAIRIE PE 44-64	Riparian	1-South	CES205.709	Southeastern Great Plains Riparian Forest	East Central Texas Plains	33	VEGETATION
539519	604	Post Oak Savanna: Post Oak Motte and Woodland	R087AY221TX	Claypan Savannah PE 48-68	Post Oak Savanna	1-South	CES205.679	East-Central Texas Plains Post Oak Savanna and Woodland	East Central Texas Plains	33	VEGETATION
539520	604	Post Oak Savanna: Post Oak Motte and Woodland	R087AY221TX	Claypan Savannah PE 48-68	Post Oak Savanna	1-South	CES205.679	East-Central Texas Plains Post Oak Savanna and Woodland	East Central Texas Plains	33	VEGETATION
539530	604	Post Oak Savanna: Post Oak Motte and Woodland	R087AY221TX	Claypan Savannah PE 48-68	Post Oak Savanna	1-South	CES205.679	East-Central Texas Plains Post Oak Savanna and Woodland	East Central Texas Plains	33	VEGETATION
539549	604	Post Oak Savanna: Post Oak Motte and Woodland	R087AY221TX	Claypan Savannah PE 48-68	Post Oak Savanna	1-South	CES205.679	East-Central Texas Plains Post Oak Savanna and Woodland	East Central Texas Plains	33	VEGETATION
539872	9106	Native Invasive: Mesquite Shrubland	R087AY221TX	Claypan Savannah PE 48-68	Disturbed Prairie	1-South	TPW101.001	Native Invasive Shrub and Woodland	East Central Texas Plains	33	VEGETATION
539873	9106	Native Invasive: Mesquite Shrubland	R087AY221TX	Claypan Savannah PE 48-68	Disturbed Prairie	1-South	TPW101.001	Native Invasive Shrub and Woodland	East Central Texas Plains	33	VEGETATION
539913	9410	Urban High Intensity	R087AY221TX	Claypan Savannah PE 48-68	Urban	1-South	TPW101.003	Urban	East Central Texas Plains	33	VEGETATION
539914	9410	Urban High Intensity	R087AY221TX	Claypan Savannah PE 48-68	Urban	1-South	TPW101.003	Urban	East Central Texas Plains	33	VEGETATION
539957	9411	Urban Low Intensity	R087AY221TX	Claypan Savannah PE 48-68	Urban	1-South	TPW101.003	Urban	East Central Texas Plains	33	VEGETATION

FID_Distri	Veg_ID	Common	EcoClass_I	EcoSystem	MOU_Habita	Phase	NS_Number	TPWD_Ecosy	EcoRegion	EcoRegion_	Feature_Ty
539962	9411	Urban Low Intensity	R087AY221TX	Claypan Savannah PE 48-68	Urban	1-South	TPW101.003	Urban	East Central Texas Plains	33	VEGETATION
539976	9411	Urban Low Intensity	R087AY221TX	Claypan Savannah PE 48-68	Urban	1-South	TPW101.003	Urban	East Central Texas Plains	33	VEGETATION
540129	607	Post Oak Savanna: Savanna Grassland	R087AY221TX	Claypan Savannah PE 48-68	Post Oak Savanna	1-South	CES205.679	East-Central Texas Plains Post Oak Savanna and Woodland	East Central Texas Plains	33	VEGETATION
540130	607	Post Oak Savanna: Savanna Grassland	R087AY221TX	Claypan Savannah PE 48-68	Post Oak Savanna	1-South	CES205.679	East-Central Texas Plains Post Oak Savanna and Woodland	East Central Texas Plains	33	VEGETATION
536138	604	Post Oak Savanna: Post Oak Motte and Woodland	R086AY200TX	CLAYPAN PRAIRIE PE 44-64	Post Oak Savanna	1-South	CES205.679	East-Central Texas Plains Post Oak Savanna and Woodland	East Central Texas Plains	33	MEDIAN
536252	9411	Urban Low Intensity	R086AY200TX	CLAYPAN PRAIRIE PE 44-64	Urban	1-South	TPW101.003	Urban	East Central Texas Plains	33	MEDIAN
536257	9411	Urban Low Intensity	R086AY200TX	CLAYPAN PRAIRIE PE 44-64	Urban	1-South	TPW101.003	Urban	East Central Texas Plains	33	MEDIAN
537544	9410	Urban High Intensity	R087AY237TX	Sandy Loam PE 48-68	Urban	1-South	TPW101.003	Urban	East Central Texas Plains	33	MEDIAN
537557	9411	Urban Low Intensity	R087AY237TX	Sandy Loam PE 48-68	Urban	1-South	TPW101.003	Urban	East Central Texas Plains	33	MEDIAN
537559	9411	Urban Low Intensity	R087AY237TX	Sandy Loam PE 48-68	Urban	1-South	TPW101.003	Urban	East Central Texas Plains	33	MEDIAN
537571	9411	Urban Low Intensity	R087AY237TX	Sandy Loam PE 48-68	Urban	1-South	TPW101.003	Urban	East Central Texas Plains	33	MEDIAN
537610	607	Post Oak Savanna: Savanna Grassland	R087AY237TX	Sandy Loam PE 48-68	Post Oak Savanna	1-South	CES205.679	East-Central Texas Plains Post Oak Savanna and Woodland	East Central Texas Plains	33	MEDIAN
537626	1903	Central Texas: Riparian Hardwood / Evergreen Forest	R087AY237TX	Sandy Loam PE 48-68	Riparian	1-South	CES205.709	Southeastern Great Plains Riparian Forest	East Central Texas Plains	33	MEDIAN
537844	604	Post Oak Savanna: Post Oak Motte and Woodland	R087AY237TX	Sandy Loam PE 48-68	Post Oak Savanna	1-South	CES205.679	East-Central Texas Plains Post Oak Savanna and Woodland	East Central Texas Plains	33	MEDIAN
538321	9410	Urban High Intensity	R087AY237TX	Sandy Loam PE 48-68	Urban	1-South	TPW101.003	Urban	East Central Texas Plains	33	MEDIAN
538323	9410	Urban High Intensity	R087AY237TX	Sandy Loam PE 48-68	Urban	1-South	TPW101.003	Urban	East Central Texas Plains	33	MEDIAN
538324	9410	Urban High Intensity	R087AY237TX	Sandy Loam PE 48-68	Urban	1-South	TPW101.003	Urban	East Central Texas Plains	33	MEDIAN
538360	9411	Urban Low Intensity	R087AY237TX	Sandy Loam PE 48-68	Urban	1-South	TPW101.003	Urban	East Central Texas Plains	33	MEDIAN
538369	9411	Urban Low Intensity	R087AY237TX	Sandy Loam PE 48-68	Urban	1-South	TPW101.003	Urban	East Central Texas Plains	33	MEDIAN
538373	9411	Urban Low Intensity	R087AY237TX	Sandy Loam PE 48-68	Urban	1-South	TPW101.003	Urban	East Central Texas Plains	33	MEDIAN
538380	9411	Urban Low Intensity	R087AY237TX	Sandy Loam PE 48-68	Urban	1-South	TPW101.003	Urban	East Central Texas Plains	33	MEDIAN
538386	9411	Urban Low Intensity	R087AY237TX	Sandy Loam PE 48-68	Urban	1-South	TPW101.003	Urban	East Central Texas Plains	33	MEDIAN
538405	9411	Urban Low Intensity	R087AY237TX	Sandy Loam PE 48-68	Urban	1-South	TPW101.003	Urban	East Central Texas Plains	33	MEDIAN
538597	607	Post Oak Savanna: Savanna Grassland	R087AY237TX	Sandy Loam PE 48-68	Post Oak Savanna	1-South	CES205.679	East-Central Texas Plains Post Oak Savanna and Woodland	East Central Texas Plains	33	MEDIAN
538617	607	Post Oak Savanna: Savanna Grassland	R087AY237TX	Sandy Loam PE 48-68	Post Oak Savanna	1-South	CES205.679	East-Central Texas Plains Post Oak Savanna and Woodland	East Central Texas Plains	33	MEDIAN
538867	9411	Urban Low Intensity	R087AY229TX	Gravelly PE 48-68	Urban	1-South	TPW101.003	Urban	East Central Texas Plains	33	MEDIAN
538883	9105	Native Invasive: Juniper Shrubland	R087AY229TX	Gravelly PE 48-68	Disturbed Prairie	1-South	TPW101.001	Native Invasive Shrub and Woodland	East Central Texas Plains	33	MEDIAN
539034	9411	Urban Low Intensity	R086AY200TX	CLAYPAN PRAIRIE PE 44-64	Urban	1-South	TPW101.003	Urban	East Central Texas Plains	33	MEDIAN
539037	9411	Urban Low Intensity	R086AY200TX	CLAYPAN PRAIRIE PE 44-64	Urban	1-South	TPW101.003	Urban	East Central Texas Plains	33	MEDIAN
539038	9411	Urban Low Intensity	R086AY200TX	CLAYPAN PRAIRIE PE 44-64	Urban	1-South	TPW101.003	Urban	East Central Texas Plains	33	MEDIAN
539044	9411	Urban Low Intensity	R086AY200TX	CLAYPAN PRAIRIE PE 44-64	Urban	1-South	TPW101.003	Urban	East Central Texas Plains	33	MEDIAN
539045	9411	Urban Low Intensity	R086AY200TX	CLAYPAN PRAIRIE PE 44-64	Urban	1-South	TPW101.003	Urban	East Central Texas Plains	33	MEDIAN
539520	604	Post Oak Savanna: Post Oak Motte and Woodland	R087AY221TX	Claypan Savannah PE 48-68	Post Oak Savanna	1-South	CES205.679	East-Central Texas Plains Post Oak Savanna and Woodland	East Central Texas Plains	33	MEDIAN
539549	604	Post Oak Savanna: Post Oak Motte and Woodland	R087AY221TX	Claypan Savannah PE 48-68	Post Oak Savanna	1-South	CES205.679	East-Central Texas Plains Post Oak Savanna and Woodland	East Central Texas Plains	33	MEDIAN
539913	9410	Urban High Intensity	R087AY221TX	Claypan Savannah PE 48-68	Urban	1-South	TPW101.003	Urban	East Central Texas Plains	33	MEDIAN
539914	9410	Urban High Intensity	R087AY221TX	Claypan Savannah PE 48-68	Urban	1-South	TPW101.003	Urban	East Central Texas Plains	33	MEDIAN
539962	9411	Urban Low Intensity	R087AY221TX	Claypan Savannah PE 48-68	Urban	1-South	TPW101.003	Urban	East Central Texas Plains	33	MEDIAN
539976	9411	Urban Low Intensity	R087AY221TX	Claypan Savannah PE 48-68	Urban	1-South	TPW101.003	Urban	East Central Texas Plains	33	MEDIAN
540130	607	Post Oak Savanna: Savanna Grassland	R087AY221TX	Claypan Savannah PE 48-68	Post Oak Savanna	1-South	CES205.679	East-Central Texas Plains Post Oak Savanna and Woodland	East Central Texas Plains	33	MEDIAN
536138	604	Post Oak Savanna: Post Oak Motte and Woodland	R086AY200TX	CLAYPAN PRAIRIE PE 44-64	Post Oak Savanna	1-South	CES205.679	East-Central Texas Plains Post Oak Savanna and Woodland	East Central Texas Plains	33	ROADWAY
536252	9411	Urban Low Intensity	R086AY200TX	CLAYPAN PRAIRIE PE 44-64	Urban	1-South	TPW101.003	Urban	East Central Texas Plains	33	ROADWAY
536257	9411	Urban Low Intensity	R086AY200TX	CLAYPAN PRAIRIE PE 44-64	Urban	1-South	TPW101.003	Urban	East Central Texas Plains	33	ROADWAY
537529	9106	Native Invasive: Mesquite Shrubland	R087AY237TX	Sandy Loam PE 48-68	Disturbed Prairie	1-South	TPW101.001	Native Invasive Shrub and Woodland	East Central Texas Plains	33	ROADWAY
537544	9410	Urban High Intensity	R087AY237TX	Sandy Loam PE 48-68	Urban	1-South	TPW101.003	Urban	East Central Texas Plains	33	ROADWAY
537557	9411	Urban Low Intensity	R087AY237TX	Sandy Loam PE 48-68	Urban	1-South	TPW101.003	Urban	East Central Texas Plains	33	ROADWAY
537559	9411	Urban Low Intensity	R087AY237TX	Sandy Loam PE 48-68	Urban	1-South	TPW101.003	Urban	East Central Texas Plains	33	ROADWAY
537570	9411	Urban Low Intensity	R087AY237TX	Sandy Loam PE 48-68	Urban	1-South	TPW101.003	Urban	East Central Texas Plains	33	ROADWAY
537571	9411	Urban Low Intensity	R087AY237TX	Sandy Loam PE 48-68	Urban	1-South	TPW101.003	Urban	East Central Texas Plains	33	ROADWAY
537610	607	Post Oak Savanna: Savanna Grassland	R087AY237TX	Sandy Loam PE 48-68	Post Oak Savanna	1-South	CES205.679	East-Central Texas Plains Post Oak Savanna and Woodland	East Central Texas Plains	33	ROADWAY
537626	1903	Central Texas: Riparian Hardwood / Evergreen Forest	R087AY237TX	Sandy Loam PE 48-68	Riparian	1-South	CES205.709	Southeastern Great Plains Riparian Forest	East Central Texas Plains	33	ROADWAY
537627	1903	Central Texas: Riparian Hardwood / Evergreen Forest	R087AY237TX	Sandy Loam PE 48-68	Riparian	1-South	CES205.709	Southeastern Great Plains Riparian Forest	East Central Texas Plains	33	ROADWAY
537838	604	Post Oak Savanna: Post Oak Motte and Woodland	R087AY237TX	Sandy Loam PE 48-68	Post Oak Savanna	1-South	CES205.679	East-Central Texas Plains Post Oak Savanna and Woodland	East Central Texas Plains	33	ROADWAY
537840	604	Post Oak Savanna: Post Oak Motte and Woodland	R087AY237TX	Sandy Loam PE 48-68	Post Oak Savanna	1-South	CES205.679	East-Central Texas Plains Post Oak Savanna and Woodland	East Central Texas Plains	33	ROADWAY
537843	604	Post Oak Savanna: Post Oak Motte and Woodland	R087AY237TX	Sandy Loam PE 48-68	Post Oak Savanna	1-South	CES205.679	East-Central Texas Plains Post Oak Savanna and Woodland	East Central Texas Plains	33	ROADWAY
537844	604	Post Oak Savanna: Post Oak Motte and Woodland	R087AY237TX	Sandy Loam PE 48-68	Post Oak Savanna	1-South	CES205.679	East-Central Texas Plains Post Oak Savanna and Woodland	East Central Texas Plains	33	ROADWAY
538068	613	Post Oak Savanna: Post Oak / Yaupon Motte and Woodland	R087AY237TX	Sandy Loam PE 48-68	Post Oak Savanna	1-South	CES205.679	East-Central Texas Plains Post Oak Savanna and Woodland	East Central Texas Plains	33	ROADWAY
538286	9106	Native Invasive: Mesquite Shrubland	R087AY237TX	Sandy Loam PE 48-68	Disturbed Prairie	1-South	TPW101.001	Native Invasive Shrub and Woodland	East Central Texas Plains	33	ROADWAY
538298	9106	Native Invasive: Mesquite Shrubland	R087AY237TX	Sandy Loam PE 48-68	Disturbed Prairie	1-South	TPW101.001	Native Invasive Shrub and Woodland	East Central Texas Plains	33	ROADWAY
538321	9410	Urban High Intensity	R087AY237TX	Sandy Loam PE 48-68	Urban	1-South	TPW101.003	Urban	East Central Texas Plains	33	ROADWAY
538323	9410	Urban High Intensity	R087AY237TX	Sandy Loam PE 48-68	Urban	1-South	TPW101.003	Urban	East Central Texas Plains	33	ROADWAY
538324	9410	Urban High Intensity	R087AY237TX	Sandy Loam PE 48-68	Urban	1-South	TPW101.003	Urban	East Central Texas Plains	33	ROADWAY
538325	9410	Urban High Intensity	R087AY237TX	Sandy Loam PE 48-68	Urban	1-South	TPW101.003	Urban	East Central Texas Plains	33	ROADWAY
538360	9411	Urban Low Intensity	R087AY237TX	Sandy Loam PE 48-68	Urban	1-South	TPW101.003	Urban	East Central Texas Plains	33	ROADWAY

FID_Distri	Veg_ID	Common	EcoClass_I	EcoSystem	MOU_Habita	Phase	NS_Number	TPWD_Ecosy	EcoRegion	EcoRegion_	Feature_Ty
538369	9411	Urban Low Intensity	R087AY237TX	Sandy Loam PE 48-68	Urban	1-South	TPW101.003	Urban	East Central Texas Plains	33	ROADWAY
538373	9411	Urban Low Intensity	R087AY237TX	Sandy Loam PE 48-68	Urban	1-South	TPW101.003	Urban	East Central Texas Plains	33	ROADWAY
538377	9411	Urban Low Intensity	R087AY237TX	Sandy Loam PE 48-68	Urban	1-South	TPW101.003	Urban	East Central Texas Plains	33	ROADWAY
538380	9411	Urban Low Intensity	R087AY237TX	Sandy Loam PE 48-68	Urban	1-South	TPW101.003	Urban	East Central Texas Plains	33	ROADWAY
538386	9411	Urban Low Intensity	R087AY237TX	Sandy Loam PE 48-68	Urban	1-South	TPW101.003	Urban	East Central Texas Plains	33	ROADWAY
538405	9411	Urban Low Intensity	R087AY237TX	Sandy Loam PE 48-68	Urban	1-South	TPW101.003	Urban	East Central Texas Plains	33	ROADWAY
538407	9411	Urban Low Intensity	R087AY237TX	Sandy Loam PE 48-68	Urban	1-South	TPW101.003	Urban	East Central Texas Plains	33	ROADWAY
538597	607	Post Oak Savanna: Savanna Grassland	R087AY237TX	Sandy Loam PE 48-68	Post Oak Savanna	1-South	CES205.679	East-Central Texas Plains Post Oak Savanna and Woodland	East Central Texas Plains	33	ROADWAY
538617	607	Post Oak Savanna: Savanna Grassland	R087AY237TX	Sandy Loam PE 48-68	Post Oak Savanna	1-South	CES205.679	East-Central Texas Plains Post Oak Savanna and Woodland	East Central Texas Plains	33	ROADWAY
538867	9411	Urban Low Intensity	R087AY229TX	Gravelly PE 48-68	Urban	1-South	TPW101.003	Urban	East Central Texas Plains	33	ROADWAY
538883	9105	Native Invasive: Juniper Shrubland	R087AY229TX	Gravelly PE 48-68	Disturbed Prairie	1-South	TPW101.001	Native Invasive Shrub and Woodland	East Central Texas Plains	33	ROADWAY
539034	9411	Urban Low Intensity	R086AY200TX	CLAYPAN PRAIRIE PE 44-64	Urban	1-South	TPW101.003	Urban	East Central Texas Plains	33	ROADWAY
539037	9411	Urban Low Intensity	R086AY200TX	CLAYPAN PRAIRIE PE 44-64	Urban	1-South	TPW101.003	Urban	East Central Texas Plains	33	ROADWAY
539038	9411	Urban Low Intensity	R086AY200TX	CLAYPAN PRAIRIE PE 44-64	Urban	1-South	TPW101.003	Urban	East Central Texas Plains	33	ROADWAY
539044	9411	Urban Low Intensity	R086AY200TX	CLAYPAN PRAIRIE PE 44-64	Urban	1-South	TPW101.003	Urban	East Central Texas Plains	33	ROADWAY
539045	9411	Urban Low Intensity	R086AY200TX	CLAYPAN PRAIRIE PE 44-64	Urban	1-South	TPW101.003	Urban	East Central Texas Plains	33	ROADWAY
539520	604	Post Oak Savanna: Post Oak Motte and Woodland	R087AY221TX	Claypan Savannah PE 48-68	Post Oak Savanna	1-South	CES205.679	East-Central Texas Plains Post Oak Savanna and Woodland	East Central Texas Plains	33	ROADWAY
539530	604	Post Oak Savanna: Post Oak Motte and Woodland	R087AY221TX	Claypan Savannah PE 48-68	Post Oak Savanna	1-South	CES205.679	East-Central Texas Plains Post Oak Savanna and Woodland	East Central Texas Plains	33	ROADWAY
539549	604	Post Oak Savanna: Post Oak Motte and Woodland	R087AY221TX	Claypan Savannah PE 48-68	Post Oak Savanna	1-South	CES205.679	East-Central Texas Plains Post Oak Savanna and Woodland	East Central Texas Plains	33	ROADWAY
539872	9106	Native Invasive: Mesquite Shrubland	R087AY221TX	Claypan Savannah PE 48-68	Disturbed Prairie	1-South	TPW101.001	Native Invasive Shrub and Woodland	East Central Texas Plains	33	ROADWAY
539873	9106	Native Invasive: Mesquite Shrubland	R087AY221TX	Claypan Savannah PE 48-68	Disturbed Prairie	1-South	TPW101.001	Native Invasive Shrub and Woodland	East Central Texas Plains	33	ROADWAY
539913	9410	Urban High Intensity	R087AY221TX	Claypan Savannah PE 48-68	Urban	1-South	TPW101.003	Urban	East Central Texas Plains	33	ROADWAY
539914	9410	Urban High Intensity	R087AY221TX	Claypan Savannah PE 48-68	Urban	1-South	TPW101.003	Urban	East Central Texas Plains	33	ROADWAY
539957	9411	Urban Low Intensity	R087AY221TX	Claypan Savannah PE 48-68	Urban	1-South	TPW101.003	Urban	East Central Texas Plains	33	ROADWAY
539962	9411	Urban Low Intensity	R087AY221TX	Claypan Savannah PE 48-68	Urban	1-South	TPW101.003	Urban	East Central Texas Plains	33	ROADWAY
539976	9411	Urban Low Intensity	R087AY221TX	Claypan Savannah PE 48-68	Urban	1-South	TPW101.003	Urban	East Central Texas Plains	33	ROADWAY
540130	607	Post Oak Savanna: Savanna Grassland	R087AY221TX	Claypan Savannah PE 48-68	Post Oak Savanna	1-South	CES205.679	East-Central Texas Plains Post Oak Savanna and Woodland	East Central Texas Plains	33	ROADWAY
536138	604	Post Oak Savanna: Post Oak Motte and Woodland	R086AY200TX	CLAYPAN PRAIRIE PE 44-64	Post Oak Savanna	1-South	CES205.679	East-Central Texas Plains Post Oak Savanna and Woodland	East Central Texas Plains	33	ROW
536241	9410	Urban High Intensity	R086AY200TX	CLAYPAN PRAIRIE PE 44-64	Urban	1-South	TPW101.003	Urban	East Central Texas Plains	33	ROW
536252	9411	Urban Low Intensity	R086AY200TX	CLAYPAN PRAIRIE PE 44-64	Urban	1-South	TPW101.003	Urban	East Central Texas Plains	33	ROW
536257	9411	Urban Low Intensity	R086AY200TX	CLAYPAN PRAIRIE PE 44-64	Urban	1-South	TPW101.003	Urban	East Central Texas Plains	33	ROW
537475	613	Post Oak Savanna: Post Oak / Yaupon Motte and Woodland	R087AY237TX	Sandy Loam PE 48-68	Post Oak Savanna	1-South	CES205.679	East-Central Texas Plains Post Oak Savanna and Woodland	East Central Texas Plains	33	ROW
537529	9106	Native Invasive: Mesquite Shrubland	R087AY237TX	Sandy Loam PE 48-68	Disturbed Prairie	1-South	TPW101.001	Native Invasive Shrub and Woodland	East Central Texas Plains	33	ROW
537543	9410	Urban High Intensity	R087AY237TX	Sandy Loam PE 48-68	Urban	1-South	TPW101.003	Urban	East Central Texas Plains	33	ROW
537544	9410	Urban High Intensity	R087AY237TX	Sandy Loam PE 48-68	Urban	1-South	TPW101.003	Urban	East Central Texas Plains	33	ROW
537557	9411	Urban Low Intensity	R087AY237TX	Sandy Loam PE 48-68	Urban	1-South	TPW101.003	Urban	East Central Texas Plains	33	ROW
537559	9411	Urban Low Intensity	R087AY237TX	Sandy Loam PE 48-68	Urban	1-South	TPW101.003	Urban	East Central Texas Plains	33	ROW
537570	9411	Urban Low Intensity	R087AY237TX	Sandy Loam PE 48-68	Urban	1-South	TPW101.003	Urban	East Central Texas Plains	33	ROW
537571	9411	Urban Low Intensity	R087AY237TX	Sandy Loam PE 48-68	Urban	1-South	TPW101.003	Urban	East Central Texas Plains	33	ROW
537607	607	Post Oak Savanna: Savanna Grassland	R087AY237TX	Sandy Loam PE 48-68	Post Oak Savanna	1-South	CES205.679	East-Central Texas Plains Post Oak Savanna and Woodland	East Central Texas Plains	33	ROW
537610	607	Post Oak Savanna: Savanna Grassland	R087AY237TX	Sandy Loam PE 48-68	Post Oak Savanna	1-South	CES205.679	East-Central Texas Plains Post Oak Savanna and Woodland	East Central Texas Plains	33	ROW
537626	1903	Central Texas: Riparian Hardwood / Evergreen Forest	R087AY237TX	Sandy Loam PE 48-68	Riparian	1-South	CES205.709	Southeastern Great Plains Riparian Forest	East Central Texas Plains	33	ROW
537627	1903	Central Texas: Riparian Hardwood / Evergreen Forest	R087AY237TX	Sandy Loam PE 48-68	Riparian	1-South	CES205.709	Southeastern Great Plains Riparian Forest	East Central Texas Plains	33	ROW
537838	604	Post Oak Savanna: Post Oak Motte and Woodland	R087AY237TX	Sandy Loam PE 48-68	Post Oak Savanna	1-South	CES205.679	East-Central Texas Plains Post Oak Savanna and Woodland	East Central Texas Plains	33	ROW
537840	604	Post Oak Savanna: Post Oak Motte and Woodland	R087AY237TX	Sandy Loam PE 48-68	Post Oak Savanna	1-South	CES205.679	East-Central Texas Plains Post Oak Savanna and Woodland	East Central Texas Plains	33	ROW
537843	604	Post Oak Savanna: Post Oak Motte and Woodland	R087AY237TX	Sandy Loam PE 48-68	Post Oak Savanna	1-South	CES205.679	East-Central Texas Plains Post Oak Savanna and Woodland	East Central Texas Plains	33	ROW
537844	604	Post Oak Savanna: Post Oak Motte and Woodland	R087AY237TX	Sandy Loam PE 48-68	Post Oak Savanna	1-South	CES205.679	East-Central Texas Plains Post Oak Savanna and Woodland	East Central Texas Plains	33	ROW
538068	613	Post Oak Savanna: Post Oak / Yaupon Motte and Woodland	R087AY237TX	Sandy Loam PE 48-68	Post Oak Savanna	1-South	CES205.679	East-Central Texas Plains Post Oak Savanna and Woodland	East Central Texas Plains	33	ROW
538286	9106	Native Invasive: Mesquite Shrubland	R087AY237TX	Sandy Loam PE 48-68	Disturbed Prairie	1-South	TPW101.001	Native Invasive Shrub and Woodland	East Central Texas Plains	33	ROW
538298	9106	Native Invasive: Mesquite Shrubland	R087AY237TX	Sandy Loam PE 48-68	Disturbed Prairie	1-South	TPW101.001	Native Invasive Shrub and Woodland	East Central Texas Plains	33	ROW
538321	9410	Urban High Intensity	R087AY237TX	Sandy Loam PE 48-68	Urban	1-South	TPW101.003	Urban	East Central Texas Plains	33	ROW
538323	9410	Urban High Intensity	R087AY237TX	Sandy Loam PE 48-68	Urban	1-South	TPW101.003	Urban	East Central Texas Plains	33	ROW
538324	9410	Urban High Intensity	R087AY237TX	Sandy Loam PE 48-68	Urban	1-South	TPW101.003	Urban	East Central Texas Plains	33	ROW
538325	9410	Urban High Intensity	R087AY237TX	Sandy Loam PE 48-68	Urban	1-South	TPW101.003	Urban	East Central Texas Plains	33	ROW
538360	9411	Urban Low Intensity	R087AY237TX	Sandy Loam PE 48-68	Urban	1-South	TPW101.003	Urban	East Central Texas Plains	33	ROW
538369	9411	Urban Low Intensity	R087AY237TX	Sandy Loam PE 48-68	Urban	1-South	TPW101.003	Urban	East Central Texas Plains	33	ROW
538373	9411	Urban Low Intensity	R087AY237TX	Sandy Loam PE 48-68	Urban	1-South	TPW101.003	Urban	East Central Texas Plains	33	ROW
538377	9411	Urban Low Intensity	R087AY237TX	Sandy Loam PE 48-68	Urban	1-South	TPW101.003	Urban	East Central Texas Plains	33	ROW
538380	9411	Urban Low Intensity	R087AY237TX	Sandy Loam PE 48-68	Urban	1-South	TPW101.003	Urban	East Central Texas Plains	33	ROW
538386	9411	Urban Low Intensity	R087AY237TX	Sandy Loam PE 48-68	Urban	1-South	TPW101.003	Urban	East Central Texas Plains	33	ROW
538405	9411	Urban Low Intensity	R087AY237TX	Sandy Loam PE 48-68	Urban	1-South	TPW101.003	Urban	East Central Texas Plains	33	ROW
538407	9411	Urban Low Intensity	R087AY237TX	Sandy Loam PE 48-68	Urban	1-South	TPW101.003	Urban	East Central Texas Plains	33	ROW
538596	607	Post Oak Savanna: Savanna Grassland	R087AY237TX	Sandy Loam PE 48-68	Post Oak Savanna	1-South	CES205.679	East-Central Texas Plains Post Oak Savanna and Woodland	East Central Texas Plains	33	ROW

FID_Distri	Veg_ID	Common	EcoClass_I	EcoSystem	MOU_Habita	Phase	NS_Number	TPWD_Ecosy	EcoRegion	EcoRegion_	Feature_Ty
538597	607	Post Oak Savanna: Savanna Grassland	R087AY237TX	Sandy Loam PE 48-68	Post Oak Savanna	1-South	CES205.679	East-Central Texas Plains Post Oak Savanna and Woodland	East Central Texas Plains	33	ROW
538617	607	Post Oak Savanna: Savanna Grassland	R087AY237TX	Sandy Loam PE 48-68	Post Oak Savanna	1-South	CES205.679	East-Central Texas Plains Post Oak Savanna and Woodland	East Central Texas Plains	33	ROW
538822	613	Post Oak Savanna: Post Oak / Yaupon Motte and Woodland	R087AY229TX	Gravelly PE 48-68	Post Oak Savanna	1-South	CES205.679	East-Central Texas Plains Post Oak Savanna and Woodland	East Central Texas Plains	33	ROW
538867	9411	Urban Low Intensity	R087AY229TX	Gravelly PE 48-68	Urban	1-South	TPW101.003	Urban	East Central Texas Plains	33	ROW
538883	9105	Native Invasive: Juniper Shrubland	R087AY229TX	Gravelly PE 48-68	Disturbed Prairie	1-South	TPW101.001	Native Invasive Shrub and Woodland	East Central Texas Plains	33	ROW
538963	604	Post Oak Savanna: Post Oak Motte and Woodland	R086AY200TX	CLAYPAN PRAIRIE PE 44-64	Post Oak Savanna	1-South	CES205.679	East-Central Texas Plains Post Oak Savanna and Woodland	East Central Texas Plains	33	ROW
538966	604	Post Oak Savanna: Post Oak Motte and Woodland	R086AY200TX	CLAYPAN PRAIRIE PE 44-64	Post Oak Savanna	1-South	CES205.679	East-Central Texas Plains Post Oak Savanna and Woodland	East Central Texas Plains	33	ROW
539034	9411	Urban Low Intensity	R086AY200TX	CLAYPAN PRAIRIE PE 44-64	Urban	1-South	TPW101.003	Urban	East Central Texas Plains	33	ROW
539037	9411	Urban Low Intensity	R086AY200TX	CLAYPAN PRAIRIE PE 44-64	Urban	1-South	TPW101.003	Urban	East Central Texas Plains	33	ROW
539038	9411	Urban Low Intensity	R086AY200TX	CLAYPAN PRAIRIE PE 44-64	Urban	1-South	TPW101.003	Urban	East Central Texas Plains	33	ROW
539044	9411	Urban Low Intensity	R086AY200TX	CLAYPAN PRAIRIE PE 44-64	Urban	1-South	TPW101.003	Urban	East Central Texas Plains	33	ROW
539045	9411	Urban Low Intensity	R086AY200TX	CLAYPAN PRAIRIE PE 44-64	Urban	1-South	TPW101.003	Urban	East Central Texas Plains	33	ROW
539083	1903	Central Texas: Riparian Hardwood / Evergreen Forest	R086AY200TX	CLAYPAN PRAIRIE PE 44-64	Riparian	1-South	CES205.709	Southeastern Great Plains Riparian Forest	East Central Texas Plains	33	ROW
539520	604	Post Oak Savanna: Post Oak Motte and Woodland	R087AY221TX	Claypan Savannah PE 48-68	Post Oak Savanna	1-South	CES205.679	East-Central Texas Plains Post Oak Savanna and Woodland	East Central Texas Plains	33	ROW
539530	604	Post Oak Savanna: Post Oak Motte and Woodland	R087AY221TX	Claypan Savannah PE 48-68	Post Oak Savanna	1-South	CES205.679	East-Central Texas Plains Post Oak Savanna and Woodland	East Central Texas Plains	33	ROW
539549	604	Post Oak Savanna: Post Oak Motte and Woodland	R087AY221TX	Claypan Savannah PE 48-68	Post Oak Savanna	1-South	CES205.679	East-Central Texas Plains Post Oak Savanna and Woodland	East Central Texas Plains	33	ROW
539872	9106	Native Invasive: Mesquite Shrubland	R087AY221TX	Claypan Savannah PE 48-68	Disturbed Prairie	1-South	TPW101.001	Native Invasive Shrub and Woodland	East Central Texas Plains	33	ROW
539873	9106	Native Invasive: Mesquite Shrubland	R087AY221TX	Claypan Savannah PE 48-68	Disturbed Prairie	1-South	TPW101.001	Native Invasive Shrub and Woodland	East Central Texas Plains	33	ROW
539913	9410	Urban High Intensity	R087AY221TX	Claypan Savannah PE 48-68	Urban	1-South	TPW101.003	Urban	East Central Texas Plains	33	ROW
539914	9410	Urban High Intensity	R087AY221TX	Claypan Savannah PE 48-68	Urban	1-South	TPW101.003	Urban	East Central Texas Plains	33	ROW
539942	9411	Urban Low Intensity	R087AY221TX	Claypan Savannah PE 48-68	Urban	1-South	TPW101.003	Urban	East Central Texas Plains	33	ROW
539957	9411	Urban Low Intensity	R087AY221TX	Claypan Savannah PE 48-68	Urban	1-South	TPW101.003	Urban	East Central Texas Plains	33	ROW
539962	9411	Urban Low Intensity	R087AY221TX	Claypan Savannah PE 48-68	Urban	1-South	TPW101.003	Urban	East Central Texas Plains	33	ROW
539976	9411	Urban Low Intensity	R087AY221TX	Claypan Savannah PE 48-68	Urban	1-South	TPW101.003	Urban	East Central Texas Plains	33	ROW
540130	607	Post Oak Savanna: Savanna Grassland	R087AY221TX	Claypan Savannah PE 48-68	Post Oak Savanna	1-South	CES205.679	East-Central Texas Plains Post Oak Savanna and Woodland	East Central Texas Plains	33	ROW

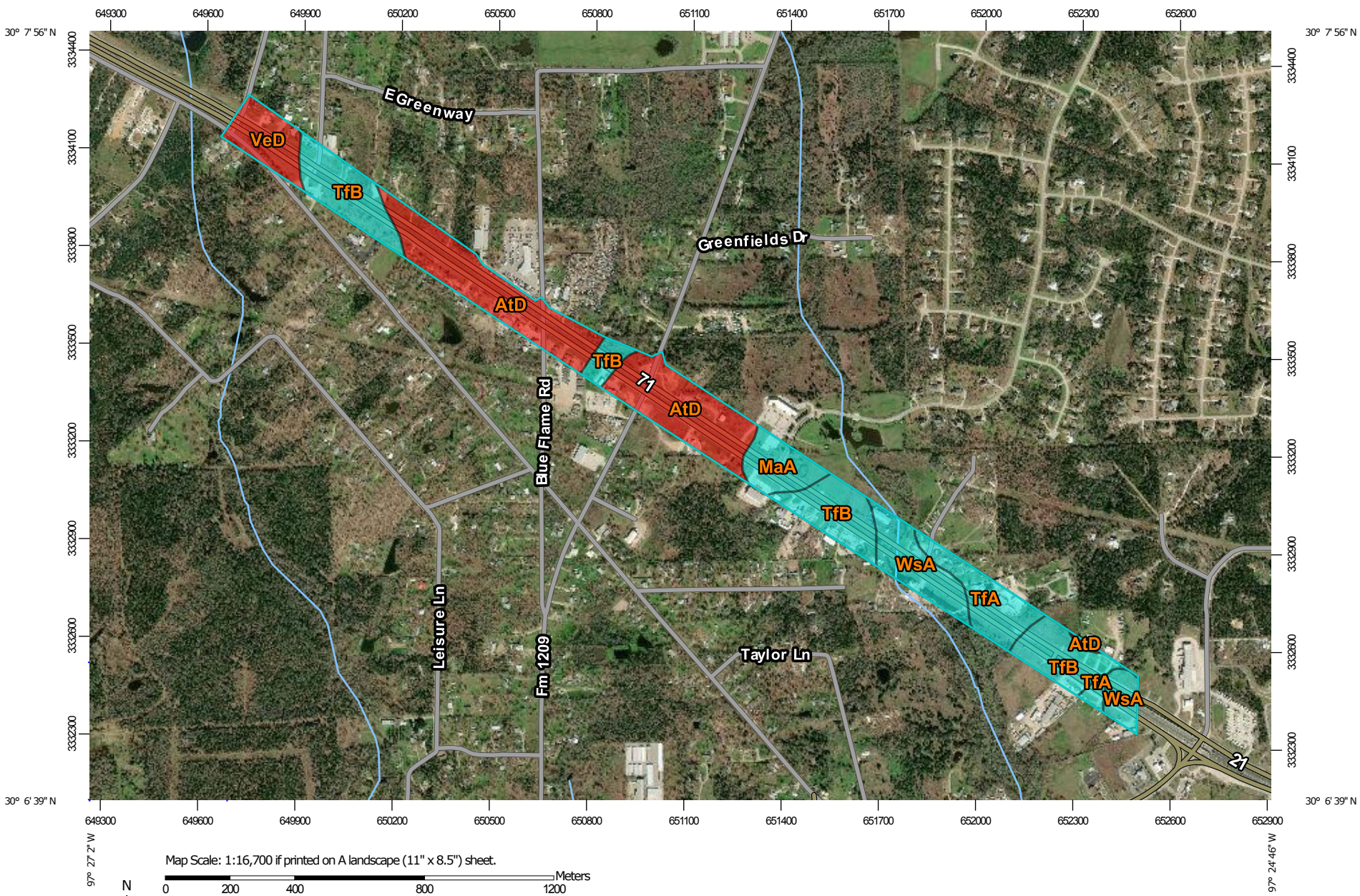
Field-verified Vegetation MOU Summary Table

Potential Impacts to Field-verified MOU Vegetation within the Project Area

EMST Vegetation Type	Ecological System Type	TxDOT/TPWD MOU Vegetation Type	MOU Thresholds (acres)	Potential Impacts (acres)*
Central Texas: Floodplain Deciduous Shrubland	Southeastern Great Plains Floodplain Forest	Riparian	0.1	0.39
Central Texas: Riparian Herbaceous Vegetation	Southeastern Great Plains Riparian Forest			0.25
Total Potential Impacts to Riparian MOU Vegetation				**0.64**
Post Oak Savanna: Post Oak Motte and Woodland	East-Central Texas Plains Post Oak Savanna and Woodland	Post Oak Savanna	2	9.6
Post Oak Savanna: Post Oak/Redcedar Motte and Woodland				1.28
Post Oak Savanna: Savanna Grassland				7.24
Total Potential Impacts to Post Oak Savanna MOU Vegetation				**18.12**
Open Water	Open Water	Open Water	None	0.24
Total Potential Impacts to Open Water MOU Vegetation				**0.24**
Urban High Intensity	Urban	Urban	None	4.79
Urban Low Intensity				59.13
Total Potential Impacts to Urban MOU Vegetation				**63.92**

*Based on ROW-to-ROW impacts

Farmland Classification—Bastrop County, Texas



Map Scale: 1:16,700 if printed on A landscape (11" x 8.5") sheet.

N

Meters: 0 200 400 800 1200

Feet: 0 500 1000 2000 3000

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 14N WGS84

MAP LEGEND

Area of Interest (AOI)

- Area of Interest (AOI)

Soils

Soil Rating Polygons

- Not prime farmland
- All areas are prime farmland
- Prime farmland if drained
- Prime farmland if protected from flooding or not frequently flooded during the growing season
- Prime farmland if irrigated
- Prime farmland if drained and either protected from flooding or not frequently flooded during the growing season
- Prime farmland if irrigated and drained
- Prime farmland if irrigated and either protected from flooding or not frequently flooded during the growing season
- Prime farmland if subsoiled, completely removing the root inhibiting soil layer
- Prime farmland if irrigated and the product of I (soil erodibility) x C (climate factor) does not exceed 60
- Prime farmland if irrigated and reclaimed of excess salts and sodium
- Farmland of statewide importance
- Farmland of local importance
- Farmland of unique importance
- Not rated or not available

Soil Rating Lines

- Not prime farmland
- All areas are prime farmland
- Prime farmland if drained
- Prime farmland if protected from flooding or not frequently flooded during the growing season
- Prime farmland if irrigated
- Prime farmland if drained and either protected from flooding or not frequently flooded during the growing season
- Prime farmland if irrigated and drained
- Prime farmland if irrigated and either protected from flooding or not frequently flooded during the growing season
- Prime farmland if subsoiled, completely removing the root inhibiting soil layer
- Prime farmland if irrigated and the product of I (soil erodibility) x C (climate factor) does not exceed 60
- Prime farmland if irrigated and reclaimed of excess salts and sodium
- Farmland of statewide importance
- Farmland of local importance
- Farmland of unique importance
- Not rated or not available

Soil Rating Points

- Not prime farmland
- All areas are prime farmland
- Prime farmland if drained
- Prime farmland if protected from flooding or not frequently flooded during the growing season
- Prime farmland if irrigated
- Prime farmland if drained and either protected from flooding or not frequently flooded during the growing season
- Prime farmland if irrigated and drained
- Prime farmland if irrigated and either protected from flooding or not frequently flooded during the growing season
- Prime farmland if subsoiled, completely removing the root inhibiting soil layer
- Prime farmland if irrigated and the product of I (soil erodibility) x C (climate factor) does not exceed 60
- Prime farmland if irrigated and reclaimed of excess salts and sodium
- Farmland of statewide importance
- Farmland of local importance
- Farmland of unique importance
- Not rated or not available

Water Features

MAP INFORMATION

Streams and Canals

Transportation

Rails

Interstate Highways

US Routes

Major Roads

Local Roads

Background

Aerial Photography

The soil surveys that comprise your AOI were mapped at 1:24,000.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Bastrop County, Texas
Survey Area Data: Version 15, Nov 7, 2017

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Jan 11, 2016—Nov 30, 2017

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Farmland Classification

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
AtD	Edge gravelly fine sandy loam, 3 to 8 percent slopes	Not prime farmland	43.4	35.2%
MaA	Mabank loam, 0 to 1 percent slopes	Farmland of statewide importance	8.1	6.5%
TfA	Tabor fine sandy loam, 0 to 1 percent slopes	Farmland of statewide importance	12.1	9.8%
TfB	Tabor fine sandy loam, 1 to 3 percent slopes	Farmland of statewide importance	35.7	28.9%
VeD	Vernia very gravelly loamy sand, 1 to 8 percent slopes	Not prime farmland	9.1	7.4%
WsA	Wilson clay loam, 0 to 1 percent slopes	Farmland of statewide importance	15.1	12.2%
Totals for Area of Interest			**123.5**	**100.0%**

Description

Farmland classification identifies map units as prime farmland, farmland of statewide importance, farmland of local importance, or unique farmland. It identifies the location and extent of the soils that are best suited to food, feed, fiber, forage, and oilseed crops. NRCS policy and procedures on prime and unique farmlands are published in the "Federal Register," Vol. 43, No. 21, January 31, 1978.

Rating Options

Aggregation Method: No Aggregation Necessary

Tie-break Rule: Lower

U.S. DEPARTMENT OF AGRICULTURE
Natural Resources Conservation Service

NRCS-CPA-106
(Rev. 1-91)

FARMLAND CONVERSION IMPACT RATING FOR CORRIDOR TYPE PROJECTS

PART I *(To be completed by Federal Agency)*	3. Date of Land Evaluation Request	4. Sheet 1 of 1
1. Name of Project **SH 71 at FM 1209**	5. Federal Agency Involved **TxDOT under NEPA assignment**	
2. Type of Project **Transportation**	6. County and State **Bastrop, Tx**	

PART II *(To be completed by NRCS)*	1. Date Request Received by NRCS	2. Person Completing Form
3. Does the corridor contain prime, unique statewide or local important farmland? (If no, the FPPA does not apply - Do not complete additional parts of this form). YES ☐ NO ☐		4. Acres Irrigated / Average Farm Size
5. Major Crop(s)	6. Farmable Land in Government Jurisdiction Acres: %	7. Amount of Farmland As Defined in FPPA Acres: %
8. Name Of Land Evaluation System Used	9. Name of Local Site Assessment System	10. Date Land Evaluation Returned by NRCS

PART III *(To be completed by Federal Agency)*		Alternative Corridor For Segment _____			
		Corridor A	Corridor B	Corridor C	Corridor D
A. Total Acres To Be Converted Directly		40			
B. Total Acres To Be Converted Indirectly, Or To Receive Services		0			
C. Total Acres In Corridor		40			
PART IV *(To be completed by NRCS) Land Evaluation Information*					
A. Total Acres Prime And Unique Farmland					
B. Total Acres Statewide And Local Important Farmland					
C. Percentage Of Farmland in County Or Local Govt. Unit To Be Converted					
D. Percentage Of Farmland in Govt. Jurisdiction With Same Or Higher Relative Value					
PART V *(To be completed by NRCS) Land Evaluation Information Criterion Relative value of Farmland to Be Serviced or Converted (Scale of 0 - 100 Points)*					
PART VI *(To be completed by Federal Agency) Corridor Assessment Criteria (These criteria are explained in 7 CFR 658.5(c))*	Maximum Points				
1. Area in Nonurban Use	15	12			
2. Perimeter in Nonurban Use	10	7			
3. Percent Of Corridor Being Farmed	20	0			
4. Protection Provided By State And Local Government	20	0			
5. Size of Present Farm Unit Compared To Average	10	0			
6. Creation Of Nonfarmable Farmland	25	5			
7. Availablility Of Farm Support Services	5	2			
8. On-Farm Investments	20	1			
9. Effects Of Conversion On Farm Support Services	25	0			
10. Compatibility With Existing Agricultural Use	10	0			
TOTAL CORRIDOR ASSESSMENT POINTS	160	27	0	0	0
PART VII *(To be completed by Federal Agency)*					
Relative Value Of Farmland (From Part V)	100	0	0	0	0
Total Corridor Assessment (From Part VI above or a local site assessment)	160	27	0	0	0
TOTAL POINTS *(Total of above 2 lines)*	260	27	0	0	0

1. Corridor Selected:	2. Total Acres of Farmlands to be Converted by Project:	3. Date Of Selection:	4. Was A Local Site Assessment Used? YES ☐ NO ☑

5. Reason For Selection:

Signature of Person Completing this Part: | DATE

NOTE: Complete a form for each segment with more than one Alternate Corridor

CORRIDOR - TYPE SITE ASSESSMENT CRITERIA

The following criteria are to be used for projects that have a linear or corridor - type site configuration connecting two distant points, and crossing several different tracts of land. These include utility lines, highways, railroads, stream improvements, and flood control systems. Federal agencies are to assess the suitability of each corridor - type site or design alternative for protection as farmland along with the land evaluation information.

(1) How much land is in nonurban use within a radius of 1.0 mile from where the project is intended?
More than 90 percent - 15 points
90 to 20 percent - 14 to 1 point(s)
Less than 20 percent - 0 points

(2) How much of the perimeter of the site borders on land in nonurban use?
More than 90 percent - 10 points
90 to 20 percent - 9 to 1 point(s)
Less than 20 percent - 0 points

(3) How much of the site has been farmed (managed for a scheduled harvest or timber activity) more than five of the last 10 years?
More than 90 percent - 20 points
90 to 20 percent - 19 to 1 point(s)
Less than 20 percent - 0 points

(4) Is the site subject to state or unit of local government policies or programs to protect farmland or covered by private programs to protect farmland?
Site is protected - 20 points
Site is not protected - 0 points

(5) Is the farm unit(s) containing the site (before the project) as large as the average - size farming unit in the County ?
(Average farm sizes in each county are available from the NRCS field offices in each state. Data are from the latest available Census of Agriculture, Acreage or Farm Units in Operation with $1,000 or more in sales.)
As large or larger - 10 points
Below average - deduct 1 point for each 5 percent below the average, down to 0 points if 50 percent or more below average - 9 to 0 points

(6) If the site is chosen for the project, how much of the remaining land on the farm will become non-farmable because of interference with land patterns?
Acreage equal to more than 25 percent of acres directly converted by the project - 25 points
Acreage equal to between 25 and 5 percent of the acres directly converted by the project - 1 to 24 point(s)
Acreage equal to less than 5 percent of the acres directly converted by the project - 0 points

(7) Does the site have available adequate supply of farm support services and markets, i.e., farm suppliers, equipment dealers, processing and storage facilities and farmer's markets?
All required services are available - 5 points
Some required services are available - 4 to 1 point(s)
No required services are available - 0 points

(8) Does the site have substantial and well-maintained on-farm investments such as barns, other storage building, fruit trees and vines, field terraces, drainage, irrigation, waterways, or other soil and water conservation measures?
High amount of on-farm investment - 20 points
Moderate amount of on-farm investment - 19 to 1 point(s)
No on-farm investment - 0 points

(9) Would the project at this site, by converting farmland to nonagricultural use, reduce the demand for farm support services so as to jeopardize the continued existence of these support services and thus, the viability of the farms remaining in the area?
Substantial reduction in demand for support services if the site is converted - 25 points
Some reduction in demand for support services if the site is converted - 1 to 24 point(s)
No significant reduction in demand for support services if the site is converted - 0 points

(10) Is the kind and intensity of the proposed use of the site sufficiently incompatible with agriculture that it is likely to contribute to the eventual conversion of surrounding farmland to nonagricultural use?
Proposed project is incompatible to existing agricultural use of surrounding farmland - 10 points
Proposed project is tolerable to existing agricultural use of surrounding farmland - 9 to 1 point(s)
Proposed project is fully compatible with existing agricultural use of surrounding farmland - 0 points

Project Area Photographs

Photo 1: General view of existing transportation facility at the western project limit, facing southeast from the intersection of CR 206 and SH 71.

Photo 2: General view of existing transportation and Urban Low Intensity vegetation type, facing northwest from the eastern project limit.

Photo 3: Urban High Intensity vegetation type in proposed ROW north of SH 71 and east of FM 1209, facing northwest.

Photo 4: Urban Low Intensity vegetation in existing ROW and Post Oak Savanna: Post Oak Motte and Woodland vegetation in proposed ROW, north of SH 71 and west of FM 1209, facing southeast.

Project Area Photographs

Photo 5: Post Oak Savanna: Post Oak/Redcedar Motte and Woodland vegetation in proposed ROW, south of SH 71 and east of FM 1209, facing southwest.

Photo 6: Post Oak Savanna: Savanna Grassland vegetation within proposed ROW, north of SH 71, facing northeast.

Project Area Photographs

Photo 7: Post Oak Savanna: Savanna Grassland vegetation and a narrow strip of Central Texas: Riparian Herbaceous Vegetation north of SH 71 and east FM 1209, facing northeast.

Photo 8: Open Water and Central Texas: Floodplain Deciduous Shrubland vegetation north of SH 71 and east of FM 1209, facing northeast.

Photo 9: Central Texas: Floodplain Deciduous Shrubland vegetation south of SH 71 and east of FM 1209, facing north.

Photo 10: Cliff Swallow nests observed under the SH 71 bridge shown in **Photo 9**.

ELEMENT OF OCCURRENCE RECORDS HAVE BEEN REDACTED TO PROTECT LOCATIONS OF SENSITIVE SPECIES