Biological Evaluation Form

Main CSJ: 0176-02-118
Form Prepared By: Virginia Brown (Atkins North America)

Date of Evaluation: December 19, 2017

☐ *Project has no Federal nexus.*

Proposed Letting Date: January 2022

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

District(s): Lufkin
County(ies): Angelina
Roadway Name: US 59
Limits From: FM 2021
Limits To: 0.34 mile North of SL 287

Project Description: The Texas Department of Transportation (TxDOT) proposes to upgrade US 59 to interstate standards by providing frontage roads from south of FM 2021 to 0.34 mile north of Loop 287. The total project length is 2.45 miles (mi). The existing US 59 facility includes two 12-foot-wide northbound (NB) lanes, two 12-foot wide southbound (SB) lanes and a 16-foot center flush median (center turn lane). The proposed improvements include a controlled access freeway section with 12-foot-wide NB and SB frontage roads and two 12-foot-wide mainlanes in each direction. Controlled access means there will not be direct access to the mainlanes. Access to the mainlanes is allowed via entrance and exit ramps. No temporary or permanent easements appear to be required at this time. Environmental impacts determined with schematics dated11/9/2017.

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: November 7, 2017

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

*Explain:

The following federally protected species have the potential to occur within the proposed project area: Red-cockaded Woodpecker (Picoides borealis) [E] and Louisiana Pine Snake (Pituophis ruthveni) [T]. However, suitable habitat for the Red-cockaded Woodpecker and Louisiana Pine Snake was not observed within the proposed action area as verified by a qualified biologist in August 2017.

Due to a lack of older, mature pine trees suitable for cavity trees and extensive clearing and fragmentation of pine-dominated woodland habitat, there is no suitable habitat for the Red-cockaded Woodpecker within or adjacent to the proposed project ROW. Therefore, no effect or impact is expected to the species due to the construction of the proposed project.

Louisiana pine snakes prefer open woodlands with substantial herbaceous understory, and are frequently found in fields, farmlands, and tracts of second-growth timber with high concentration of gopher burrows. Prime habitat is located in long leaf pine savannah, which is not present within or adjacent to the proposed ROW. In addition, no gopher burrows were found within or adjacent to the proposed project ROW. Gophers are the preferred prey of Louisiana pine snakes, and are essential component of high quality habitat

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

- [x] TPWD County List
- [x] USFWS Critical Habitat Maps
- [ ] Species Expert Consulted
- [x] Aerial Photography
- [ ] Coastal Areas Maps
- [x] Site Visit
- [x] Topographic Map
- [ ] Species Study Conducted
- [ ] Karst Zone Maps
- [x] Ecological Mapping System of Texas (EMST)
- [x] 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?

Bald and Golden Eagle Protection Act (BGEPA)

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

Fish and Wildlife Coordination Act (FWCA)

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?

Executive Order 13112 on Invasive Species

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

Executive Memorandum on Environmentally and Economically Beneficial Landscaping

Yes — Would landscaping be included in the proposed projects?

*Describe the landscaping activities:

Upon completion of earthwork operations, disturbed areas would be restored and reseeded in accordance with TxDOT's Vegetation Management Guidelines and in compliance with the intent of Executive Order 13112 on Invasive Species.

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

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?

General Comments

The proposed project area does contain areas mapped as prime, unique or statewide important.

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 November 7, 2017.

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 Section 404 of the Clean Water Act Nationwide Permit and Individual Permit; coordination under FWCA is addressed during the permitting process with the USACE.

Executive Order 13112 on Invasive Species (EO 13112)

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

Executive Memorandum on Beneficial Landscaping

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

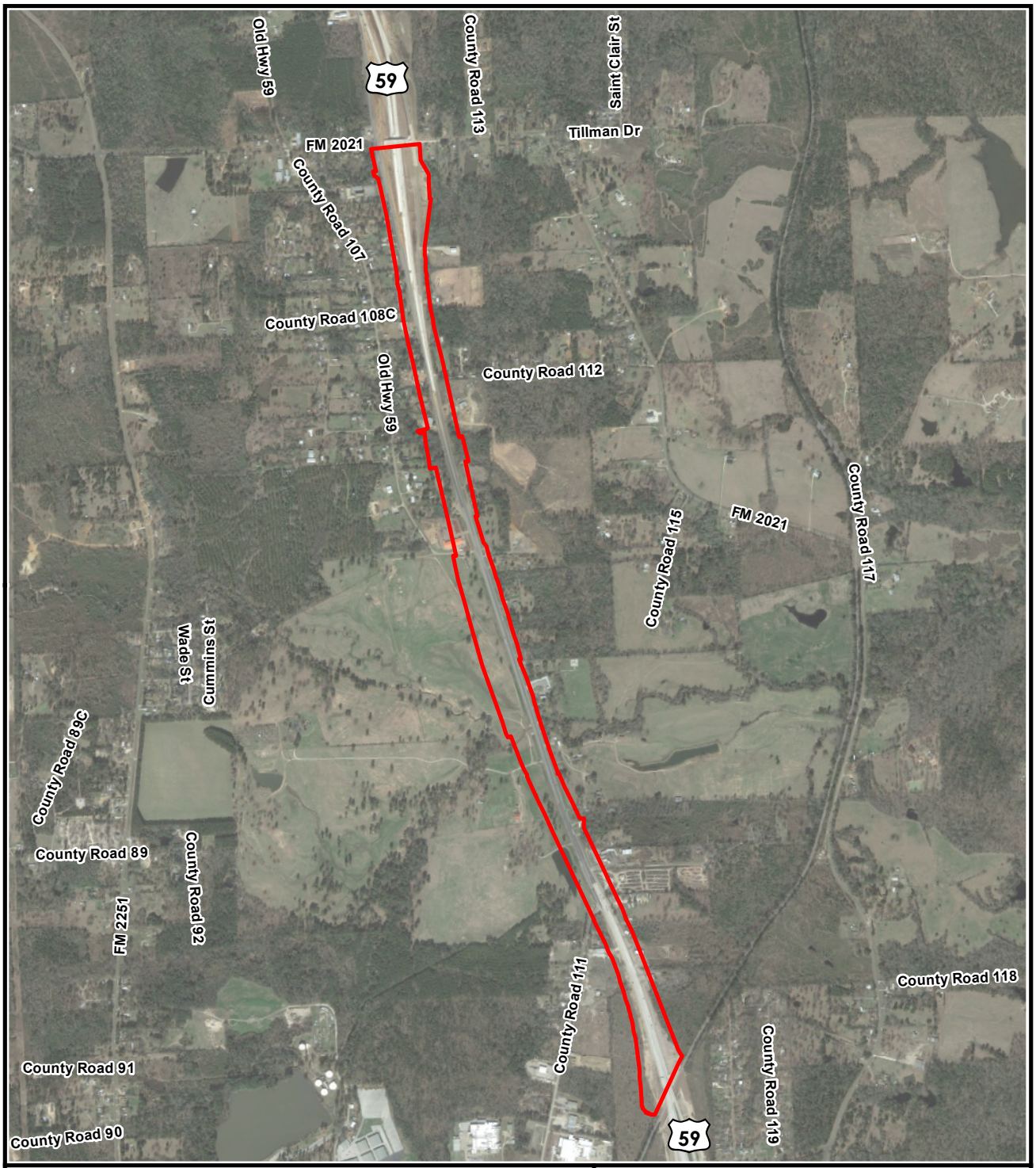
Upon completion of earthwork operations, disturbed areas would be restored and reseeded in accordance with TxDOT's Vegetation Management Guidelines and in compliance with the intent of Executive Order 13112 on Invasive Species.

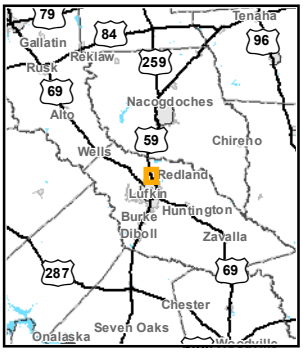
Farmland Protection Policy Act (FPPA)

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.

Attachment 1:

Figures





Legend

Proposed ROW

59 US Route

0 1,000 2,000

Feet

Google, TNRIS. Texas Google Imagery Service. 2015. 1:24,000; generated by Atkins; using ArcMap. < https://tnris.org/texas-google-imagery/> (17 May 2018).

FIGURE 1
PROJECT LOCATION MAP
US 59: UPGRADE REDLAND, TX
FROM SOUTH OF FM 2021 TO NORTH OF LOOP 287
ANGELINA COUNTY, TEXAS
CSJ: 0176-02-118

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Date: 5/17/2018

Attachment 2:

Threatened and Endangered Species

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Texas Coastal Ecological Services Field Office
17629 El Camino Real #211
Houston, TX 77058
Phone: (281) 286-8282 Fax: (281) 488-5882
http://www.fws.gov/southwest/es/TexasCoastal/
http://www.fws.gov/southwest/es/ES_Lists_Main2.html

In Reply Refer To: November 07, 2017
Consultation Code: 02ETTX00-2018-SLI-0230
Event Code: 02ETTX00-2018-E-00490
Project Name: Lufkin to Redland, TX

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 U.S. Fish and Wildlife Service (Service) field offices in Clear Lake, Tx, and Corpus Christi, Tx, have combined administratively to form the Texas Coastal Ecological Services Field Office. A map of the Texas Coastal Ecological Services Field Office area of responsibility can be found at: http://www.fws.gov/southwest/es/TexasCoastal/Map.html. All project related correspondence should be sent to the field office responsible for the area in which your project occurs. For projects located in southeast Texas please write to: Field Supervisor; U.S. Fish and Wildlife Service; 17629 El Camino Real Ste. 211; Houston, Texas 77058. For projects located in southern Texas please write to: Field Supervisor; U.S. Fish and Wildlife Service; P.O. Box 81468; Corpus Christi, Texas 78468-1468. For projects located in six counties in southern Texas (Cameron, Hidalgo, Starr, Webb, Willacy, and Zapata) please write: Santa Ana NWR, ATTN: Ecological Services Sub Office, 3325 Green Jay Road, Alamo, Texas 78516.

The enclosed species list identifies federally threatened, endangered, and proposed to be listed species; designated critical habitat; and candidate species that may occur within the boundary of your proposed project and/or may be affected by your proposed project.

New information from updated surveys, changes in the abundance and distribution of species, changes in habitat conditions, or other factors could change the list. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. The Service recommends that verification be completed by visiting the ECOS-IPaC website http://ecos.fws.gov/ipac/ at regular intervals during project planning and implementation for updates to species list and information. An updated list may be requested through the ECOS-IPaC system by completing the same process used to receive the enclosed list.

Candidate species have no protection under the Act but are included for consideration because they could be listed prior to the completion of your project. The other species information should help you determine if suitable habitat for these listed species exists in any of the proposed project areas or if project activities may affect species on-site, off-site, and/or result in "take" of a federally listed species.

"Take" is defined as harass, harm, pursue, hunt, shoot, wound, kill, trap, capture or collect, or to attempt to engage in any such conduct. In addition to the direct take of an individual animal, habitat destruction or modification can be considered take, regardless of whether it has been formally designated as critical habitat, if the activity results in the death or injury of wildlife by removing essential habitat components or significantly alters essential behavior patterns, including breeding, feeding, or sheltering.

Section 7

Section 7 of the Act requires that all Federal agencies consult with the Service to ensure that actions authorized, funded or carried out by such agencies do not jeopardize the continued existence of any listed threatened or endangered species or adversely modify or destroy critical habitat of such species. It is the responsibility of the Federal action agency to determine if the proposed project may affect threatened or endangered species. If a "may affect" determination is made, the Federal agency shall initiate the section 7 consultation process by writing to the office that has responsibility for the area in which your project occurs.

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 effects. The Federal agency or the designated non-Federal representative should seek written concurrence from the Service that adverse effects have been eliminated. 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 or its interrelated or interdependent actions, and the effect is not discountable, insignificant, or beneficial. If the overall effect of the proposed action is beneficial to the listed species but also is likely to cause some adverse effects to individuals of that species, then the proposed action "is likely to adversely affect" the listed species. An "is likely to adversely affect" determination requires the Federal action agency to initiate formal section 7 consultation with this office.

No effect - the proposed action will not affect federally listed species or critical habitat (i.e., suitable habitat for the species occurring in the project county is not present in or adjacent to the action area). No further 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.

Regardless of your determination, the Service recommends that you maintain a complete record

of the evaluation, including steps leading to the determination of affect, the qualified personnel conducting the evaluation, habitat conditions, site photographs, and any other related articles.

Please be advised that while a Federal agency may designate a non-Federal representative to conduct informal consultations with the Service, assess project effects, or prepare a biological assessment, the Federal agency must notify the Service in writing of such a designation. The Federal agency shall also independently review and evaluate the scope and contents of a biological assessment prepared by their designated non-Federal representative before that document is submitted to the Service.

The Service's Consultation Handbook is available online to assist you with further information on definitions, process, and fulfilling Act requirements for your projects at:
http://www.fws.gov/endangered/esa-library/pdf/esa_section7_handbook.pdf

Section 10

If there is no federal involvement and the proposed project is being funded or carried out by private interests and/or non-federal government agencies, and the project as proposed may affect listed species, a section 10(a)(1)(B) permit is recommended. The Habitat Conservation Planning Handbook is available at:
http://www.fws.gov/endangered/esa-library/pdf/HCP_Handbook.pdf

Service Response

Please note that the Service strives to respond to requests for project review within 30 days of receipt, however, this time period is not mandated by regulation. Responses may be delayed due to workload and lack of staff. Failure to meet the 30-day timeframe does not constitute a concurrence from the Service that the proposed project will not have impacts to threatened and endangered species.

Proposed Species and/or Proposed Critical Habitat

While consultations are required when the proposed action may affect listed species, section 7(a)(4) was added to the ESA to provide a mechanism for identifying and resolving potential conflicts between a proposed action and proposed species or proposed critical habitat at an early planning stage. The action agency should seek conference from the Service to assist the action agency in determining effects and to advise the agency on ways to avoid or minimize adverse effect to proposed species or proposed critical habitat.

Candidate Species

Candidate species are species that are being considered for possible addition to the threatened and endangered species list. They currently have no legal protection under the ESA. If you find you have potential project impacts to these species the Service would like to provide technical assistance to help avoid or minimize adverse effects. Addressing potential impacts to these species at this stage could better provide for overall ecosystem healh in the local area and ay avert potential future listing.

Several species of freshwater mussels occur in Texas and four are candidates for listing under the ESA. The Service is also reviewing the status of six other species for potential listing under the ESA. One of the main contributors to mussel die offs is sedimentation, which smothers and suffocates mussels. To reduce sedimentation within rivers, streams, and tributaries crossed by a project, the Service recommends that that you implement the best management practices found at: http://www.fws.gov/southwest/es/TexasCoastal/FreshwaterMussels.html.

Candidate Conservation Agreements (CCAs) or Candidate Conservation Agreements with Assurances (CCAAs) are voluntary agreements between the Service and public or private entities to implement conservation measures to address threats to candidate species. Implementing conservation efforts before species are listed increases the likelihood that simpler, flexible, and more cost-effective conservation options are available. A CCAA can provide participants with assurances that if they engage in conservation actions, they will not be required to implement additional conservation measures beyond those in the agreement. For additional information on CCAs/CCAAs please visit the Service's website at http://www.fws.gov/endangered/what-we-do/cca.html.

Migratory Birds

The Migratory Bird Treaty Act (MBTA) implements various treaties and conventions for the protection of migratory birds. Under the MBTA, taking, killing, or possessing migratory birds is unlawful. Many may nest in trees, brush areas or other 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 or eggs. If project activities must be conducted during this time, we recommend surveying for active nests prior to commencing work. A list of migratory birds may be viewed at http://www.fws.gov/migratorybirds/regulationspolicies/mbta/mbtandx.html.

The bald eagle (Haliaeetus leucocephalus) was delisted under the Act on August 9, 2007. Both the bald eagle and the goden eagle (Aquila chrysaetos) are still protected under the MBTA and BGEPA. The BGEPA affords both eagles protection in addition to that provided by the MBTA, in particular, by making it unlawful to "disturb" eagles. Under the BGEPA, the Service may issue limited permits to incidentally "take" eagles (e.g., injury, interfering with normal breeding, feeding, or sheltering behavior nest abandonment). For more information on bald and golden eagle management guidlines, we recommend you review information provided at http://www.fws.gov/midwest/eagle/pdf/NationalBaldEagleManagementGuidelines.pdf.

The construction of overhead power lines creates threats of avian collision and electrocution. The Service recommends the installation of underground rather than overhead power lines whenever possible. For new overhead lines or retrofitting of old lines, we recommend that project developers implement, to the maximum extent practicable, the Avian Power Line Interaction Committee guidelines found at http://www.aplic.org/.

Meteorological and communication towers are estimated to kill millions of birds per year. We recommend following the guidance set forth in the Service Interim Guidelines for

Recommendations on Communications Tower Siting, Constructions, Operation and Decommissioning, found online at: http://www.fws.gov/habitatconservation/communicationtowers.html, to minimize the threat of avian mortality at these towers. Monitoring at these towers would provide insight into the effectiveness of the minimization measures. We request the results of any wildlife mortality monitoring at towers associated with this project.

We request that you provide us with the final location and specifications of your proposed towers, as well as the recommendations implemented. A Tower Site Evaluation Form is also available via the above website; we recommend you complete this form and keep it in your files. If meteorological towers are to be constructed, please forward this completed form to our office.

More information concerning sections 7 and 10 of the Act, migratory birds, candidate species, and landowner tools can be found on our website at: http://www.fws.gov/southwest/es/TexasCoastal/ProjectReviews.html.

Wetlands and Wildlife Habitat

Wetlands and riparian zones provide valuable fish and wildlife habitat as well as contribute to ood control, water quality enhancement, and groundwater recharge. Wetland and riparian vegetation provides food and cover for wildlife, stabilizes banks and decreases soil erosion. These areas are inherently dynamic and very sensitive to changes caused by such activities as overgrazing, logging, major construction, or earth disturbance. Executive Order 11990 asserts that each agency shall provide leadership and take action to minimize the destruction, loss or degradation of wetlands, and to preserve and enhance the natural and beneficial value of wetlands in carrying out the agency's responsibilities. Construction activities near riparian zones should be carefully designed to minimize impacts. If vegetation clearing is needed in these riparian areas, they should be re-vegetated with native wetland and riparian vegetation to prevent erosion or loss of habitat. We recommend minimizing the area of soil scarification and initiating incremental re-establishment of herbaceous vegetation at the proposed work sites. Denuded and/or disturbed areas should be re-vegetated with a mixture of native legumes and grasses. Species commonly used for soil stabilization are listed in the Texas Department of Agriculture's (TDA) Native Tree and Plant Directory, available from TDA at P.O. Box 12847, Austin, Texas 78711. The Service also urges taking precautions to ensure sediment loading does not occur to any receiving streams in the proposed project area. To prevent and/or minimize soil erosion and compaction associated with construction activities, avoid any unnecessary clearing of vegetation, and follow established rights-of-way whenever possible. All machinery and petroleum products should be stored outside the oodplain and/or wetland area during construction to prevent possible contamination of water and soils.

Wetlands and riparian areas are high priority fish and wildlife habitat, serving as important sources of food, cover, and shelter for numerous species of resident and migratory wildlife. Waterfowl and other migratory birds use wetlands and riparian corridors as stopover, feeding, and nesting areas. We strongly recommend that the selected project site not impact wetlands and riparian areas, and be located as far as practical from these areas. Migratory birds tend to concentrate in or near wetlands and riparian areas and use these areas as migratory yways or

corridors. After every effort has been made to avoid impacting wetlands, you anticipate unavoidable wetland impacts will occur; you should contact the appropriate U.S. Army Corps of Engineers office to determine if a permit is necessary prior to commencement of construction activities.

If your project will involve filling, dredging, or trenching of a wetland or riparian area it may require a Clean Water Act Section 404 permit from the U.S. Army Corps of Engineers (COE). For permitting requirements please contact the U.S. Corps of Engineers, District Engineer, P.O. Box 1229, Galveston, Texas 77553-1229, (409) 766-3002.

Beneficial Landscaping

In accordance with Executive Order 13112 on Invasive Species and the Executive Memorandum on Beneficial Landscaping (42 C.F.R. 26961), where possible, any landscaping associated with project plans should be limited to seeding and replanting with native species. A mixture of grasses and forbs appropriate to address potential erosion problems and long-term cover should be planted when seed is reasonably available. Although Bermuda grass is listed in seed mixtures, this species and other introduced species should be avoided as much as possible. The Service also recommends the use of native trees, shrubs, and herbaceous species that are adaptable, drought tolerant and conserve water.

State Listed Species

The State of Texas protects certain species. Please contact the Texas Parks and Wildlife Department (Endangered Resources Branch), 4200 Smith School Road, Austin, Texas 78744 (telephone 512/389-8021) for information concerning fish, wildlife, and plants of State concern or visit their website at:
http://www.tpwd.state.tx.us/huntwild/wild/wildlife_diversity/texas_rare_species/listed_species/.

If we can be of further assistance, or if you have any questions about these comments, please contact 281/286-8282 if your project is in southeast Texas, or 361/994-9005, ext. 246, if your project is in southern Texas. Please refer to the Service consultation number listed above in any future correspondence regarding this project.

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:

Texas Coastal Ecological Services Field Office
17629 El Camino Real #211
Houston, TX 77058
(281) 286-8282

Project Summary

Consultation Code: 02ETTX00-2018-SLI-0230

Event Code: 02ETTX00-2018-E-00490

Project Name: Lufkin to Redland, TX

Project Type: TRANSPORTATION

Project Description: linear project

Project Location:

Approximate location of the project can be viewed in Google Maps:
https://www.google.com/maps/place/31.395534039779815N94.71708672800087W

Counties: Angelina, TX

Endangered Species Act Species

There is a total of 5 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. See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

Birds

NAME	STATUS
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 related projects within migratory route. 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 related projects within migratory route. 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 related projects within migratory route. Species profile: https://ecos.fws.gov/ecp/species/1864	Threatened
Red-cockaded Woodpecker *Picoides borealis* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/7614	Endangered

Reptiles

NAME	STATUS
Louisiana Pine Snake *Pituophis ruthveni* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/4092	Proposed Threatened

Critical habitats

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

Attachment 3:

Representative Photos

US 59 Upgrade – Lufkin to Redland
Attachment C: Representative Photographs of Proposed Area (July 2017)
CSJ: 0176-02-118

Photo 1: Typical Pineywoods: Small Stream and Riparian Herbaceous Wetland vegetation community within or adjacent to the proposed project ROW, facing west, connected to Mill Creek (31.388887°, -94.715974°).

Photo 2: Typical Pineywoods: Small Stream and Riparian Herbaceous Wetland vegetation community within or adjacent to the proposed ROW, facing east, connected to Mill Creek (31.388887, -94.715974).

Photo 3: Typical Pineywoods: Small Stream and Riparian Temporarily Flooded Hardwood Forest vegetation community within or adjacent to the proposed project ROW, facing west, connected to Creek 1 (31.398883°, -94.718981°).

Photo 4: Typical Pineywoods: Small Stream and Riparian Temporarily Flooded Hardwood Forest vegetation community within or adjacent to the proposed project ROW, facing west, connected to Creek 1 (31.398883°, -94.718981°).

Photo 5: Typical Pineywoods: Bottomland Herbaceous Wetland vegetation community within or adjacent to the proposed project ROW, facing north. (31.385204°, -94.714944°).

Photo 6: Typical Pineywoods: Bottomland Herbaceous Wetland vegetation community within or adjacent to the proposed project ROW, facing north. (31.392992°, -94.717250°).

Photo 7: Typical Pineywoods: Disturbance or Tame Grassland vegetation community within or adjacent to the proposed project ROW, facing north (31.389568°, -94.716308°).

Photo 8: Typical Pineywoods: Disturbance or Tame Grassland vegetation community within or adjacent to the proposed project ROW, facing south (31.389568°, -94.716308°).

Photo 9: Typical Pineywoods: Open Water, Pond 1, vegetation community within or adjacent to the proposed project ROW, facing west (31.383558°, -94.714049°).

Photo 10: Typical Pineywoods: Open Water, Pond 1, vegetation community within or adjacent to the proposed project ROW, facing south (31.383558°, -94.714049°).

Photo 11: Typical Urban High Intesity vegetation community within or adjacent to the proposed ROW facing south (31.400454°,-94.718988°).

Photo 12: Typical Urban High Intensity vegetation community within or adjacent to the proposed project ROW, facing west (31.401814°, -94.719888°).

Photo 13: Typical Urban Low Intensity vegetation community within or adjacent to the proposed project ROW, facing north (31.404559°, -94.720253°).

Photo 14: Typical Urban Low Intensity vegetation community with or adjacent to the proposed project ROW, facing south (31.398964°, -94.718482°).

Attachment 4:

NRCS Prime Farmland

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 **US 59: Upgrade Redland, TX**	5. Federal Agency Involved **Texas Department of Transportation**	
2. Type of Project **Improvement of current corridor**	6. County and State **Angelina County, Texas**	
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		28.10			
B. Total Acres To Be Converted Indirectly, Or To Receive Services					
C. Total Acres In Corridor		111.31			
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	10			
2. Perimeter in Nonurban Use	10	7			
3. Percent Of Corridor Being Farmed	20	4			
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	8			
7. Availablility Of Farm Support Services	5	5			
8. On-Farm Investments	20	5			
9. Effects Of Conversion On Farm Support Services	25	4			
10. Compatibility With Existing Agricultural Use	10	4			
TOTAL CORRIDOR ASSESSMENT POINTS	160	47	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	47	0	0	0
TOTAL POINTS *(Total of above 2 lines)*	260	47	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?
A (only alternative)	28.10	12/20/17	YES ☐ NO ☑

5. Reason For Selection:

Final alignment minimized impacts to residential and commercial displacements, wildlife habitat, wetlands and floodplains.

Jonathan M. Bartz

12-21-2017

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

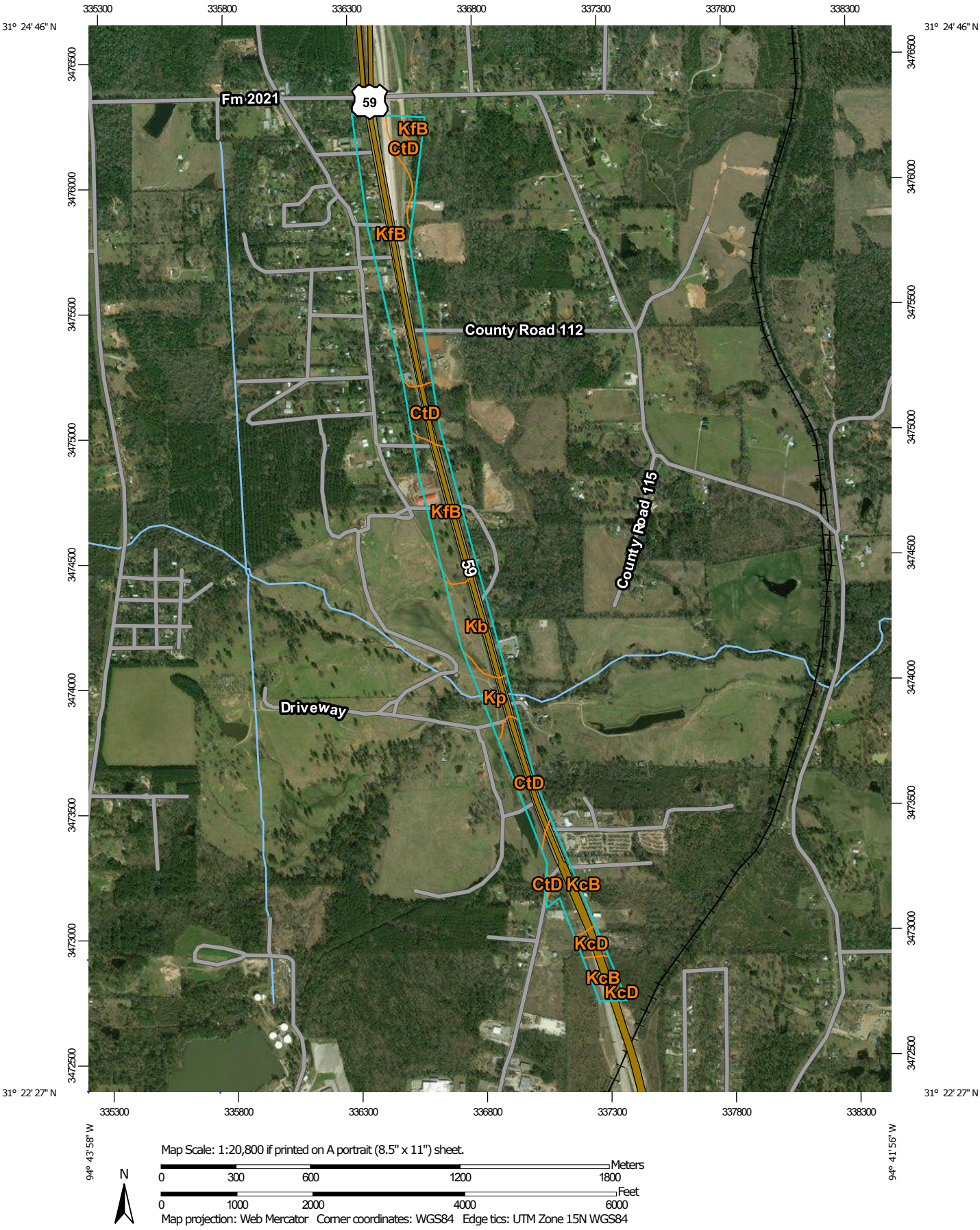
(7) Does the site have available adequate supply of farm support services and markets, i.e., farm suppliers, equipment dealers, processing and storage facilities and farmer's markets?
All required services are available - 5 points
Some required services are available - 4 to 1 point(s)
No required services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

Soil Map—Angelina County, Texas
(Soil Survey Map)



MAP LEGEND

Area of Interest (AOI)

Area of Interest (AOI)

Soils

Soil Map Unit Polygons

Soil Map Unit Lines

Soil Map Unit Points

Special Point Features

Blowout

Borrow Pit

Clay Spot

Closed Depression

Gravel Pit

Gravelly Spot

Landfill

Lava Flow

Marsh or swamp

Mine or Quarry

Miscellaneous Water

Perennial Water

Rock Outcrop

Saline Spot

Sandy Spot

Severely Eroded Spot

Sinkhole

Slide or Slip

Sodic Spot

Spoil Area

Stony Spot

Very Stony Spot

Wet Spot

Other

Special Line Features

Water Features

Streams and Canals

Transportation

Rails

Interstate Highways

US Routes

Major Roads

Local Roads

Background

Aerial Photography

MAP INFORMATION

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: Angelina County, Texas
Survey Area Data: Version 16, 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: May 14, 2011—Oct 5, 2016

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.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
CtD	Cuthbert fine sandy loam, 5 to 15 percent slopes	21.8	18.0%
Kb	Keithville-Sawtown complex, gently undulating	13.4	11.1%
KcB	Keltys fine sandy loam, 1 to 5 percent slopes	14.6	12.1%
KcD	Keltys fine sandy loam, 5 to 15 percent slopes	3.1	2.5%
KfB	Kirvin fine sandy loam, 1 to 5 percent slopes	61.5	50.8%
Kp	Koury loam, frequently flooded	6.7	5.5%
Totals for Area of Interest		**121.1**	**100.0%**

US 59: Upgrade Redland, TX			
Angelina County, TX			
Prime Farmland Soils Within the Total Project Area			
Map Unit Key	**Map Unit Name**	**Farmland Classification**	**Acreage**
Kp	Koury loam, frequently flooded	Not prime farmland	8.92
KfB	Kirvin fine sandy loam, 1 to 5 percent slopes	Not prime farmland	48.24
CtD	Cuthbert fine sandy loam, 5 to 15 percent slopes	Not prime farmland	9.40
Kb	Keithville-Sawtown complex, gently undulating	All areas are prime farmland	13.69
CtD	Cuthbert fine sandy loam, 5 to 15 percent slopes	Not prime farmland	13.28
KcB	Keltys fine sandy loam, 1 to 5 percent slopes	All areas are prime farmland	14.42
KcD	Keltys fine sandy loam, 5 to 15 percent slopes	Not prime farmland	3.37
SaD	Sacul fine sandy loam, 5 to 15 percent slopes	Not prime farmland	0.01
		Total Acres	**111.31**
		Total Prime Farmland Acres	**28.11**
		Total Project Area	**111.31**
		% of Project Area w/ Prime Farmland (Adjusted/Total)	**25.25%**

Tier I Site Assessment

Main CSJ: 0176-02-118

Form Prepared By: Virginia Brown (Atkins North America)

Date of Evaluation: December 21, 2017

☐ *Project is classified as a Categorical Exclusion*

Proposed Letting Date: January 2022

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

District(s): Lufkin

County(ies): Angelina

Roadway Name: US 59

Limits From: FM 2021

Limits To: 0.34 mile North of SL 287

Project Description: The Texas Department of Transportation (TxDOT) proposes to upgrade US 59 to interstate standards by providing frontage roads from FM 2021 to 0.34 mile north of Loop 287. The total project length is 2.45 miles (mi). The existing US 59 facility includes two 12-foot-wide northbound (NB) lanes, two 12-foot wide southbound (SB) lanes and a 16-foot center flush median (center turn lane). The proposed improvements include a controlled access freeway section with 12-foot-wide NB and SB frontage roads and two 12-foot-wide mainlanes in each direction. Controlled access means there will not be direct access to the mainlanes. Access to the main lanes is allowed via entrance and exit ramps. No temporary or permanent easements appear to be required at this time. Environmental impacts determined with schematics dated 11/9/2017.

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

1. No — Is the project limited to a maintenance activity exempt from coordination?

   http://txdot.gov/inside-txdot/division/environmental/maintenance-program.html

2. No — Has the project previously completed coordination with TPWD?

3. Yes — Is the project within range of a state threatened or endangered species or SGCN and suitable habitat is present?

*Explain:

The proposed project ROW is within range of and exhibits suitable habitat for three state-listed threatened species: Swallow-tailed Kite (Elanoides forifactus), Alligator snapping turtle (Macrochelys temminckii), and Timber rattlesnake (Crotalus horridus).

The proposed project ROW is also within range and suitable habitat for eight SGCN: Sprague's Pipit (Anthus spragueii), an unnamed crayfish species (Procambarus nechesae), Texas prairie crayfish (Fallicambarus devastator), Plains spotted skunk (Spilogale putorius interrupta), Boynton's oak (Quercus boyntonii), Incised groovebur (Agrimonia incisa), Mohlenbrock's sedge (Cyperus grayioides), and Southeastern myotis bat (Myotis austroriparius).

TPWD county lists are attached.

Date TPWD County List Accessed: November 7, 2017

Date that the NDD was accessed: November 7, 2017

What agency performed the NDD search? TPWD

EOID Number	Common Name	Scientific Name	Listing Status	Buffer Zone
12716	Alligator snapping turtle	*Macrochelys temminckii*	ST	10 Mile
12714	Alligator snapping turtle	*Macrochelys temminckii*	ST	10 Mile
10479	Neches crayfish	*Procambarus nechesae*	SGCN	10 Mile
10172	Blackbelted crayfish	*Procambarus nigrocinctus*	SGCN	10 Mile
10108	Blackbelted crayfish	*Procambarus nigrocinctus*	SGCN	10 Mile
11184	Soxman's milkvetch	*Astragalus soxmaniorum*	SGCN	10 Mile
11167	Soxman's milkvetch	*Astragalus soxmaniorum*	SGCN	10 Mile
11134	Soxman's milkvetch	*Astragalus soxmaniorum*	SGCN	10 Mile
11210	Soxman's milkvetch	*Astragalus soxmaniorum*	SGCN	10 Mile
5969	Red-cockaded Woodpecker	*Picoides borealis*	FE/SE	10 Mile
13242	Blackspot shiner	*Notropis atrocaudalis*	SGCN	10 Mile
13826	Sabine shiner	*Notropis sabinae*	SGCN	10 Mile
13083	Creek chubsucker	*Erimyzon claviformis*	ST	10 Mile
1030	Texas screwstem	*Bartonia paniculata ssp. Texana*	SGCN	10 Mile
10825	Louisiana pigtoe	*Pleurobema riddellii*	ST	10 Mile
9745	Louisiana pigtoe	*Pleurobema riddellii*	ST	10 Mile
9496	Louisiana pigtoe	*Pleurobema riddellii*	ST	10 Mile
10773	Texas pigtoe	*Fusconaia askewi*	ST	10 Mile
10787	Triangle pigtoe	*Fusconaia lananensis*	ST	10 Mile
9708	Triangle pigtoe	*Fusconaia lananensis*	ST	10 Mile
10772	Triangle pigtoe	*Fusconaia lananensis*	ST	10 Mile
9792	Sandbank pocketbook	*Lampsilis satura*	ST	10 Mile
8676	Southeastern myotis bat	*Myotis austroriparius*	SGCN	10 Mile
6672	Southeastern myotis bat	*Myotis austroriparius*	SGCN	10 Mile
2613	Southern crawfish frog	*Lithobates areolatus areolatus*	SGCN	10 Mile
7838	Water Oak-willow Oak Series	*Quercus nigra-quercus phellos series*	NA	10 Mile
3073	Water Oak-willow Oak Series	*Quercus nigra-quercus phellos series*	NA	10 Mile
452	Water Oak-willow Oak Series	*Quercus nigra-quercus phellos series*	NA	10 Mile
4647	Water Oak-willow Oak Series	*Quercus nigra-quercus phellos series*	NA	10 Mile
4415	Water Oak-willow Oak Series	*Quercus nigra-quercus phellos series*	NA	10 Mile
7839	Water Oak-willow Oak Series	*Quercus nigra-quercus phellos series*	NA	10 Mile

NDD Search Results for EOIDs and Tracked Managed Areas

EOID Number	Common Name	Scientific Name	Listing Status	Buffer Zone
4081	Water Elm-swamp Privet Series	*Planera aquatica-forestiera accuminata series*	NA	10 Mile

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

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

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

*Explain:

The proposed project would involve temporary and permanent impacts to a number of potentially jurisdictional waterbodies and would be authorized under USACE Nationwide Permit 14 with a Preconstruction Notification.

6. Yes — Does the project include more than 200 linear feet of stream channel for each single and complete crossing of one or more of the following that is not already channelized or otherwise maintained:

   No — Channel realignment; or

   No — Stream bed or stream bank excavation, scraping, clearing, or other permanent disturbance.

*Explain:

While greater than 200 LF of stream (Mill Creek) crosses the proposed project, TxDOT proposes to span the channel and prohit the use of fill (temporary or permanent) below the ordinary high water mark.

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

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

*Explain:

According to field observations by a qualified biologist, the proposed project would impact approximately 1.35 acres of riparian vegetation.

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

*Explain:

The following MOU habitat types would be impacted by the proposed project: 6.01 acres of floodplain, which is greater than the 0.5-acre PA threshold; 1.35 acre of riparian, which is greater than the 0.1-acre PA threshold; and 4.74 acres of Mixed Woodland and Forests, which is greater than the 0.5-acre PA threshold.

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

Excel File Name:

02_US59_L2R_EMST_Vegetation_12132017.xlsx

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

*Explain:

The vegetation types observed by a qualified biologist within the proposed project area did not completely correspond to the EMST mapped vegetation types.

The actual vegetation types observed within the proposed project area include: 1) Urban High Intensity; 2) Urban Low Intensity; 3) Pineywoods: Disturbance or Tame Grassland; 4) Pineywoods: Upland Hardwood Forest; 5) Pineywoods: Bottomland Herbaceous Wetland; 6) Pineywoods: Small Stream and Riparian Temporarily Flooded Hardwood Forest; 7) Pineywoods: Small Stream and Riparian Herbaceous Wetland; and 8) Open Water

Please see attached EMST Vegetation Figure 4 (Sheets 1 through 6) which illustrates the EMST Vegetation Types within the proposed project area in comparison with the Actual Vegetation Figure 5 (Sheets 1 through 6) which illustrates the Actual Vegetation Types observed within the proposed project area (Attachment 3).

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

03_US59_2SC_Vegetation_Comparison_121317.xlsx

Is TPWD Coordination Required?

Yes

☒ Early Coordination

☐ Administrated Coordination - Must be conducted through ENV-NRM

BMPs Implemented or EPICs included (as necessary):

The proposed project, including the area abutting the ROW, is within the range and habitat of state-listed species and SGCN as identified by TPWD's County List of Rare and Protected Species and triggers the MOU need for BMP implementation. The species and BMPs that would be implemented to avoid or minimize impacts are discussed below.

Sprague's Pipit, Swallow-Tailed Kite, and other migratory birds:
- TxDOT will comply with the Migratory Bird Treaty Act (MBTA).

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

Rafinesque's big-eared bat and Southeastern myotis bat:
- All bat surveys and other activities that include direct contact with bats will comply with TPWD-recommended white-nose syndrome protocols.
- A qualified biologist will perform a habitat assessment and occupancy survey with roost potential.

- For roosts where occupancy is observed, install non-lethal exclusion activities or timing or phasing of construction.
- If feature(s) used by bats are removed as a result of construction, replacement structures should incorporate bat-friendly design or artificial roosts should be constructed.
- Retain mature, large-diameter hardwood forest species where feasible.
- In all instances, avoid harm or death to bats. Bats should only be handled as a last resort and after communication with TPWD.

Timber rattlesnake and alligator snapping turtle:
- Apply hydromulching and/or hydroseeding in areas for soil stabilization and/or revegetation of disturbed areas where feasible. If hydromulching and/or hydroseeding are not feasible due to site conditions, use erosion control blankets or mats that contain no netting or contain loosely woven, natural-fiber netting. Plastic netting should be avoided to the greatest extent practicable.
- For open trenches and excavated pits, install escape ramps at an angle of less than 45 degrees (1:1) in areas left uncovered. Visually inspect excavation areas for trapped wildlife prior to backfilling.
- Contractors will be informed that if reptiles are found on project site to allow species to safety leave the project area.
- Contractors will be advised of potential occurrence in the project are and to avoid harming the species if encountered.

Impacts to vegetation would be avoided or minimized by limiting disturbance to only that which is necessary to construct the proposed project. The removal of native vegetation, particularly mature native trees and shrubs, would be avoided to the greatest extent practicable, An approved seed mix would be used in the landscaping and revegetation of disturbed areas. Upon completion of earthwork operations, disturbed areas would be restored and reseeded, where feasible, in accordance with TxDOT's Vegetation Management Guidelines and in compliance with the intent of Executive Order 13112 on Invasive Species and the FHWA Executive Memorandum on Environmentally and Economically Beneficial Landscaping Practices.

TxDOT Contact Information

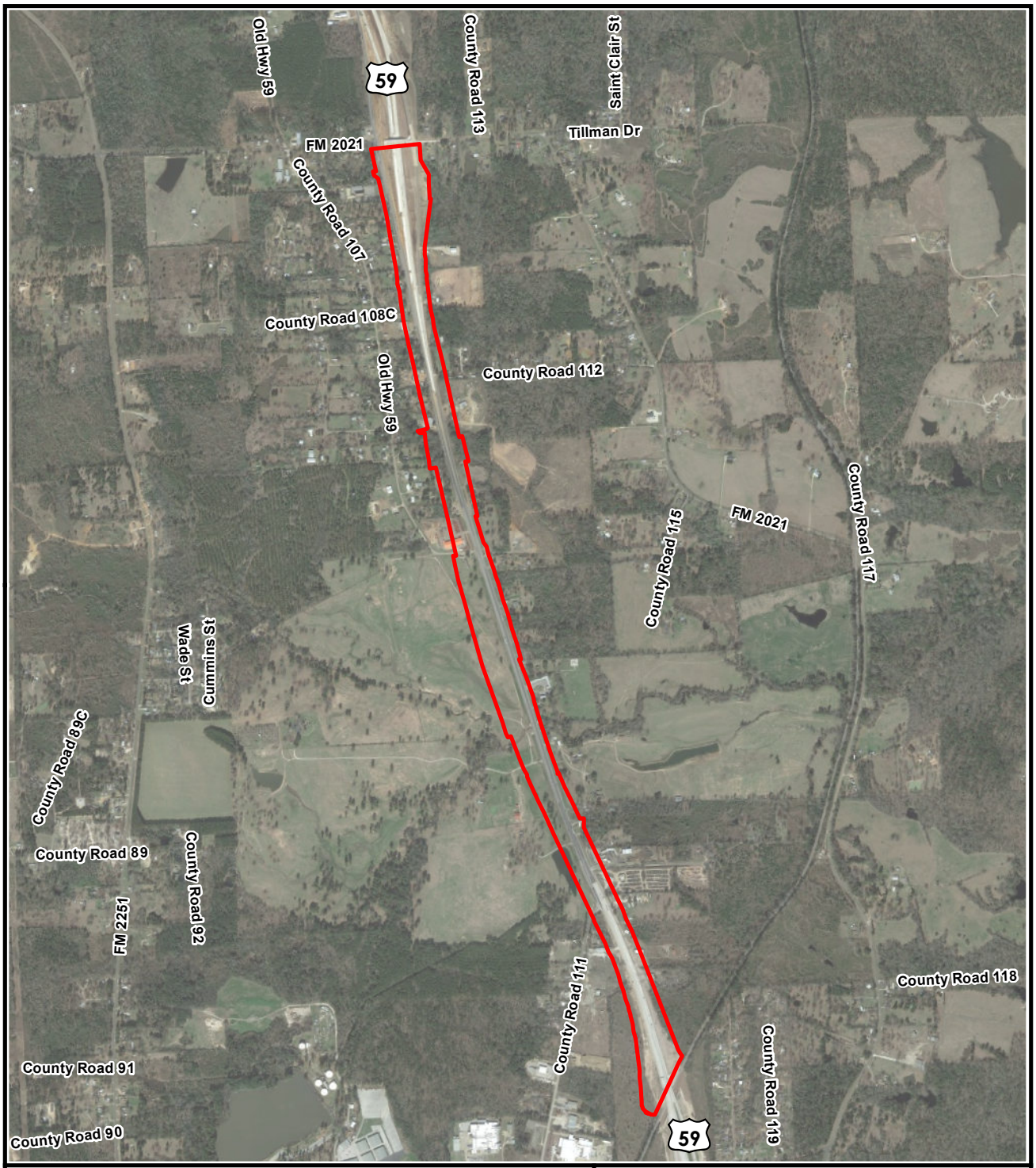
Name: Jennifer Adams

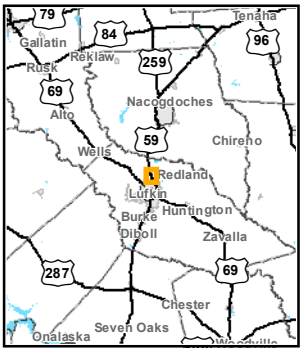
Phone Number: (936) 633-4383

E-mail: jennifer.adams@txdot.gov

Attachment 1:

Figures





Legend

Proposed ROW

59 US Route

0 1,000 2,000

Feet

Google, TNRIS. Texas Google Imagery Service. 2015. 1:24,000; generated by Atkins; using ArcMap. < https://tnris.org/texas-google-imagery/> (17 May 2018).

FIGURE 1
PROJECT LOCATION MAP
US 59: UPGRADE REDLAND TX,
FROM FM 2021 TO 0 34 MILE NORTH OF SL 287
ANGELINA COUNTY TEXAS,
CSJ: 0176-02-118

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Date: 5/17/2018

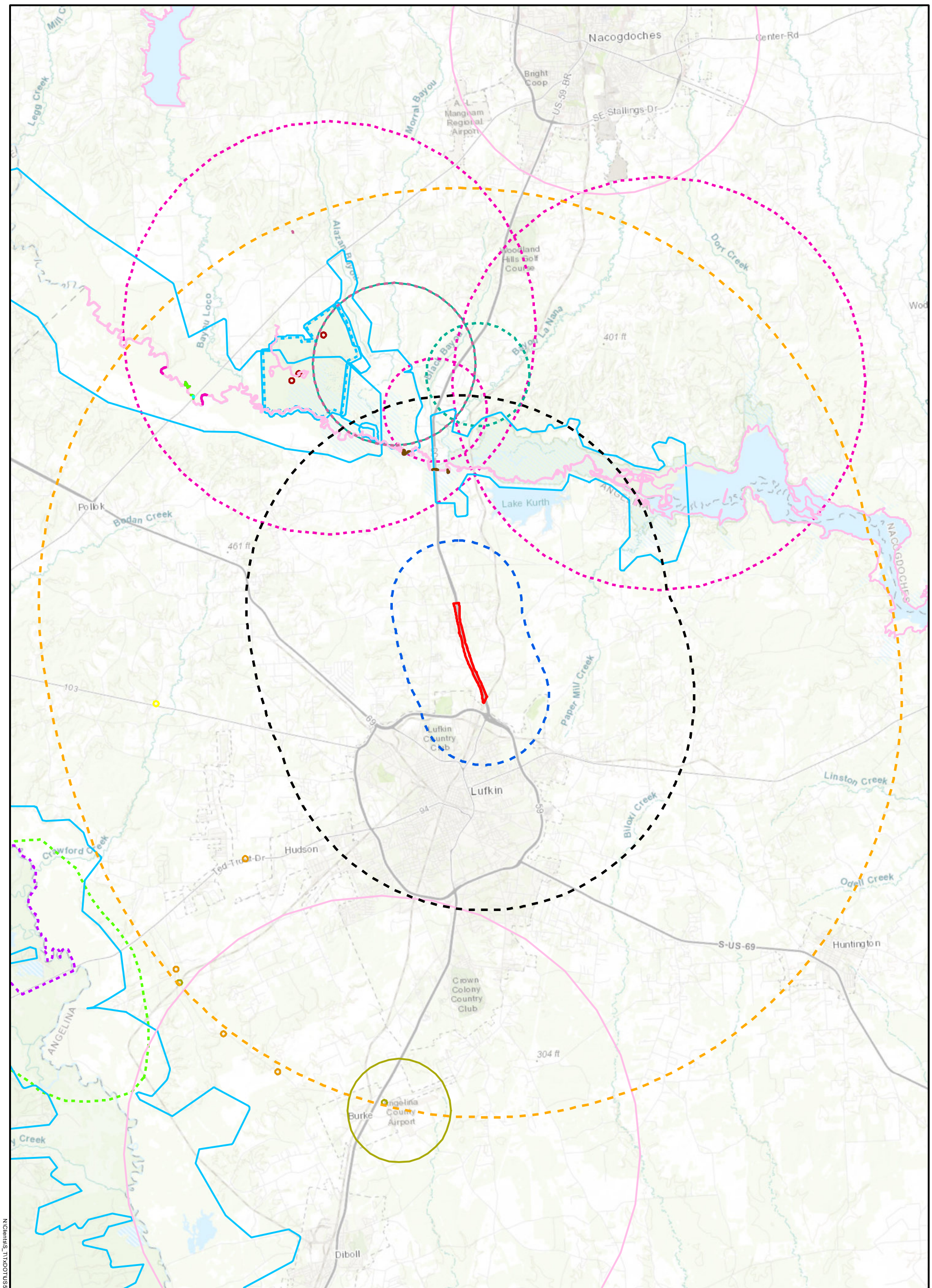

FIGURE 2
RARE, THREATENED, OR ENDANGERED SPECIES OCCURRING WITHIN A 5 AND 10 MILE RADIUS OF THE PROPOSED PROJECT
US 59: UPGRADE REDLAND, TX
FROM FM 2021 TO 0 34 MILE NORTH OF SL 287
ANGELINA COUNTY, TEXAS
CSJ: 0176-02-118

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Attachment 2:

Threatened and Endangered Species

Candidate, Threatened, or Endangered Species of Angelina County, Texas

Species	State Status	Federal Status	Potential Habitat Present	Species Effect/Impact	Justification
Birds					
American Peregrine Falcon (*Falco peregrinus anatum)*	ST	DL[1]	No	No Impact	No suitable habitat is present within or adjacent to the proposed project ROW. No suitable habitat for nesting or stop overs for migration occurs. There are no tall cliffs or landscape edges, such as lake shores, coastlines, or barrier islands, near the ROW.
Arctic Peregrine Falcon (*Falco peregrinus tundrius*)	SGCN	DL[1]	No	No Impact	No suitable habitat is present within or adjacent to the proposed project ROW. No high cliffs or tall buildings located near open water sources are found within or adjacent to the proposed project ROW. Open areas next to water do not have necessary height structure, concentration of prey, and limited nest site availability.
Bachman's *Sparrow (Aimophila aestivalis*)	ST	--	No	No Impact	No suitable habitat is present within or adjacent to the proposed project ROW. Species is known to build nests on the floor of mature open pine forest with an understory of clumped grasses and brush. Pine stands within or adjacent to the ROW are in the early successional stage composed of overcrowded saplings, allowing for minimal light to reach the forest floor, retarding the establishment of an understory.
Bald Eagle *(Haliaeetus leucocephalus)*	ST	DL[1]	No	No Impact	No suitable habitat is present within or adjacent to the proposed project ROW. The species is known to use old-growth coniferous trees near lakes of greater than a seven-mile circumference, and near rivers. Pond 01, located adjacent to and within the proposed ROW, lacks coniferous forest stands and has a circumference of less than seven miles. No suitable waterbodies are located within or adjacent to the proposed project ROW.
Henslow's Sparrow *(Ammodramus henslowii)*	SGCN	--	No	No Impact	No suitable habitat is within or adjacent to the proposed project ROW. Species is known to use wet shrubby fields, and to migrate to marshes and open pine woods. Open pine woods are located within or adjacent to the ROW, but wet shrubby fields and marshes are absent. All components have to be present to be considered suitable habitat.

Species	State Status	Federal Status	Potential Habitat Present	Species Effect/Impact	Justification
Peregrine Falcon *(Falco peregrinus)*	ST	DL[1]	No	No Impact	No suitable habitat is present within or adjacent to the proposed project ROW. No suitable habitat for nesting or stop overs for migration occurs. There are no tall cliffs or landscape edges, such as lake shores, coastlines, or barrier islands, near the ROW.
Piping Plover *(Charadrius melodus)*	ST	T	No	No Effect	No suitable habitat is present within or adjacent to the proposed project ROW. Species is a shorebird that almost exclusively uses sandy beaches, lakeshores, and rocky shores near large waterbodies. No major waterbodies with these characteristics are present within or adjacent to the proposed project ROW.
Red-cockaded Woodpecker *(Picoides borealis)*	SE	E	No	No Effect	No suitable habitat within or adjacent to the proposed project ROW. The Red-cockaded woodpecker is a habitat specialist that is largely dependent on older, mature pine stands for nesting and forage sites. Due to a lack of older, mature pine trees suitable for cavity trees and extensive clearing and fragmentation of pine-dominated woodland habitat, there is no suitable habitat for the species within or adjacent to the proposed project ROW. Therefore, no effect is expected to the species due to the construction of the proposed project.
Sprague's Pipit *(Anthus spragueii)*	SGCN	--	Yes	May Impact	Potential suitable habitat is present within or adjacent to the proposed project ROW. Species is closely tied to native grassland prairie with a diversity of plant species and high variation in vegetative cover. Grasslands with a variation of grasses and sedges, and bare ground, tall shrub cover, tree cover, non-native grasses, and cultivated land are present within and adjacent to the proposed ROW.

Species	State Status	Federal Status	Potential Habitat Present	Species Effect/Impact	Justification
Swallow-tailed Kite *(Elanoides forficatus)*	ST	--	Yes	May Impact	Potential suitable habitat is present within or adjacent to the proposed ROW. Of the global population, 10 percent inhabits the United States, with the majority occurring in southern Florida. Species range extends from South Carolina to eastern Texas. Swallow-tailed Kites prefer habitats that are lowland swampy woodlands, marshes, lakes, and ponds. They require tall trees, typically near water, for nesting, and large open areas for foraging. All requirements of high-quality habitat is available adjacent to or within the proposed ROW.
Wood Stork *(Mycteria americana)*	ST	--	No	No Impact	No suitable habitat occurs adjacent to or within proposed ROW. No habitats with cypress trees in marshes, swamps, or mangroves and no open wetlands with high concentrations of fish are found adjacent to or within proposed ROW.
Crustaceans					
A crayfish *(Procambarus nechesae)*	SGCN	--	Yes	May Impact	Suitable habitat occurs adjacent or within proposed ROW. A crayfish is a habitat generalist that utilizes creeks, ponds, flooded ditches or drainage ditches, all which has been observed within and adjacent to the proposed project ROW.
Texas prairie crayfish *(Fallicambarus devastator)*	SGCN	--	Yes	May Impact	Suitable habitat occurs adjacent or within proposed ROW. Texas prairie crayfish prefer habitats that are located in roadside ditches or grasslands. This type of habitat is available adjacent to or with the proposed ROW.
Fishes					
American eel *(Anguilla rostrata)*	SGCN	--	No	No Impact	No suitable habitat is present within or adjacent to the proposed project ROW. No muddy-bottomed, natural, coastal waterway with easy access to the Gulf (for breeding purposes) is present within or adjacent to the proposed ROW.
Creek chubsucker *(Erimyzon oblongus)*	ST	--	No	No Impact	No suitable habitat is present within or adjacent to the proposed project ROW. No headwaters, headwater rivulets, marshes, river mouths, pools, riffles, or lake outlets present within or adjacent to the proposed ROW.
Orangebelly darter *(Etheostoma radiosum)*	SGCN	--	No	No Impact	Suitable habitat is not present within or adjacent to the proposed project ROW. No streams with gravel-bottoms with moderate to high currents found within or adjacent to the proposed project ROW. It is primarily found within Red River tributaries in Oklahoma and Arkansas.

Species	State Status	Federal Status	Potential Habitat Present	Species Effect/Impact	Justification
Paddlefish *(Polyodon spathula)*	ST	--	No	No Impact	No suitable habitat is present within or adjacent to the proposed project ROW. No large free flowing rivers or fast shallow waters over gravel bars are found within or adjacent to the proposed ROW.
Mammals					
Black bear (*Ursus americanus*)	ST	--	No	No Impact	No suitable habitat is present within or adjacent to the proposed project ROW. Species has been extirpated from the proposed project area. No large tracts of inaccessible hardwood forested areas occur within or adjacent to the proposed ROW. Black Bears have been extirpated from East Texas from 1983. Black bears found in east Texas are thought to be transient individuals from Arkansas and Louisiana.
Louisiana black bear (*Ursus americanus luteolus*)	ST	DL[1]	No	No Effect	Species has been extirpated from the proposed project area. No large tracts of inaccessible hardwood forested areas occur within or adjacent to the proposed ROW.
Plains spotted skunk (*Spilogale putorius interrupta*)	SGCN	--	Yes	May Impact	Potential suitable habitat is present within or adjacent to the proposed project ROW. The species may use open fields, prairies, croplands, fence rows, farmyards, forest edges, and woodlands, but prefers wooded, brushy areas and tallgrass prairie with extensive vegetative cover. Fence rows, dense brush, farm buildings, wood piles, extensive leaf litter, hay stacks, heavily-vegetated gullies, and downed logs are preferred sources of cover. Vegetated areas are present within or adjacent to the ROW and were noted as possessing the necessary vegetative cover the species requires to avoid predators.
Rafinesque's big-eared bat (*Corynorinus rafinesquii*)	ST	--	No	No Impact	No suitable habitat is present within or adjacent to the proposed project ROW. The species roosts in cavity trees of bottomland hardwoods, concrete culverts, and abandoned man-made structures that can be found within or adjacent to proposed ROW. Species prefers cavity trees with diameter at breast height (DBH) of 36 inches or greater. Trees with this DBH were not observed during site visit. One bridge is present within the existing ROW was visited. However, no bats, bat colonies, bat guano (droppings), and deceased bats were observed during the site reconnaissance.
Red Wolf (*Canis rufus*)	SE	E	No	No Effect	Species has been extirpated from the proposed project area.

Species	State Status	Federal Status	Potential Habitat Present	Species Effect/Impact	Justification
Southeastern myotis bat (*Myotis austroriparius*)	SGCN	--	No	No Impact	No suitable habitat is present within or adjacent to the proposed project ROW. The species roosts in cavity trees of bottomland hardwoods, concrete culverts, and abandoned man-made structures that can be found within or adjacent to proposed ROW. No suitable cavity trees were found within or adjacent the proposed ROW during site visit. One bridge present within the existing ROW was visited. No bats, bat colonies, bat guano (droppings), and deceased bats were observed during the site reconnaissance.
Mollusks					
Louisiana pigtoe (*Pleurobema riddellii*)	ST	--	No	No Impact	No suitable habitat is present within or adjacent to the proposed project ROW. No large free-flowing rivers or fast shallow water over gravel bars are found within or adjacent to the proposed ROW.
Sandback pocketbook (*Lampsilis satura*)	ST	--	No	No Impact	No suitable habitat is present within or adjacent to the proposed project ROW. No large free-flowing rivers or fast shallow water over gravel bars are found within or adjacent to the proposed ROW.
Southern hickorynut *(Obovaria jacksoniana)*	ST	--	No	No Impact	No suitable habitat is present within or adjacent to the proposed project ROW. No small to large sized rivers with medium sized gravel and moderate current located within or adjacent to the proposed ROW. Additionally, it has not been recorded to occur in the Angelina River basin, and has only been recorded to occur in the Neches, Sabine, Red River, and Village Creek drainages within Texas.
Texas heelsplitter (*Potamilus amphichaenus*)	ST	--	No	No Impact	No suitable habitat is present within or adjacent to the proposed project ROW. Texas heelsplitter prefers to inhabit flowing waterways in small to medium rivers with a sandy or mud bottom. Additionally, the species has only been documented in Sabine, Neches, and Trinity River. The species has not been documented in the Angelina River watershed and is unlikely to be impacted by the proposed construction.

Species	State Status	Federal Status	Potential Habitat Present	Species Effect/Impact	Justification
Texas pigtoe (*Fusconaia askewi*)	ST	--	No	No Impact	No suitable habitat is present within or adjacent to the proposed project ROW. Texas pigtoe prefers river habitats with mixed mud, sand, and fine gravel in protected areas associated with fallen trees or other structures. Suitable substrate was observed in Mill Creek. However protected eddies or backwaters were not observed within or adjacent to the proposed POW. Species occurrence has only been documented in the Neches, Sabine, and San Jacinto river systems.
Triangle pigtoe (*Fusconaia lananensis*)	ST	--	No	No Impact	No suitable habitat is present within or adjacent to the proposed project ROW. Triangle pigtoe prefers river habitats with mixed mud, sand, and fine gravel – all which have been observed in Mill Creek. As this species has only been documented in the Neches River basin, it is unlikely to be impacted by the proposed construction.
Plants					
Boynton's oak (*Quercus boyntonii*)	SGCN	--	Yes	No Impact	Suitable habitat is present within or adjacent to the proposed project ROW. Boyton's Oak is associated with sandstone glade outcrops within the shrub layer of Loblolly Pine-Oak forest on deep sandy soils in creek bottoms, and possibly in shallower soils of upland prairies. Possible suitable habitat is present within or adjacent to the proposed project ROW near a tributary to Mill Creek. Despite presence of suitable habitat, no individuals of this species were observed during site reconnaissance.
Incised groovebur (*Agrimonia incisa*)	SGCN	--	Yes	No Impact	Suitable habitat is within or adjacent to the proposed project ROW. Open pine woods or mixed pine-oaks woods, small clearing, and edges of mesic habitats are present within or adjacent to the proposed project ROW. Despite presence of suitable habitat, no individuals of this species were observed during site reconnaissance.
Large beakrush (*Rhynchospora macra*)	SGCN	--	No	No Impact	No suitable habitat is within or adjacent to the proposed project ROW. No bogs, wet pine savannas or flatwoods are located within or adjacent to the proposed project ROW.

Species	State Status	Federal Status	Potential Habitat Present	Species Effect/Impact	Justification
Mohlenbrock's sedge (*Cyperus grayioides*)	SGCN	--	Yes	No Impact	Suitable habitat is present within or adjacent to the proposed project ROW. Deep sand and sandy loam in dry openings in upland pine savannas and mixed pine-oak forests is present within and adjacent to the proposed project ROW. These areas are concentrated near Mill Creek's exposed banks. Despite presence of suitable habitat, no individuals of this species were observed during site reconnaissance.
Panicled indigobush (*Amorpha paniculata*)	SGCN	--	No	No Impact	No suitable habitat is located within or adjacent to the proposed project ROW. Panicled indigobush's preferred habitat is located within deep acid woodland and bogs. It is an obligate wetland species preferring bogs, forested, and scrub-shrub wetlands that are not present within or adjacent to the proposed project ROW.
Texas screwstem (*Bartonia texana*)	SGCN	--	No	No Impact	No suitable habitat is present near or adjacent to the proposed project ROW. Acid seeps in pine-oak forests on gentle slopes or baygall shrub thickets at spring heads are not found adjacent or within the proposed ROW.
Texas trillium (*Trillium texanum*)	SGCN	--	No	No Impact	No suitable habitat is present within or adjacent to the proposed project ROW. No forested seeps or baygalls imbedded in sand uplands located within or adjacent to proposed project ROW.
Yellow fringeless orchid (*Platanthera integra*)	SGCN	--	Yes	No Impact	Suitable habitat is present within or adjacent to the proposed project ROW. Yellow fringeless orchids prefer wet pine flatwoods, wet prairies, sunny seepage often on slopes, and depressions within pine lands; with wet prairies and sunny seepages observed within and adjacent to the proposed project ROW. However, due to the extreme rarity of this species, known from one specimen in the county, it is unlikely that it will be present within or adjacent to the proposed ROW or impacted by the proposed construction.

Species	State Status	Federal Status	Potential Habitat Present	Species Effect/Impact	Justification
Reptiles					
Alligator snapping turtle (*Macrochelys temminckii*)	ST	--	Yes	May Impact	Potential suitable habitat occurs near or adjacent to the proposed project ROW. Alligator snapping turtle habitat requires deep water of rivers, canals, lakes, oxbows, swamps, bayous, or ponds with mud and vegetation located on the bottom and near deep running water. While these habitat components are not present within the existing ROW, they are present in portions of Mill Creek that are adjacent west of the proposed ROW.
Louisiana pine snake (*Pituophis ruthveni*)	ST	T	No	No Effect	No potential suitable habitat occurs near or adjacent to the proposed project ROW. Louisiana pine snakes prefer open woodlands with substantial herbaceous understory, and are frequently found in fields, farmlands, and tracts of second-growth timber with high concentration of gopher burrows. Prime habitat is located in long leaf pine savannah, which is not present within or adjacent to the proposed ROW. In addition, no gopher burrows were found within or adjacent to the proposed project ROW. Gophers are the preferred prey of Louisiana pine snakes, and are essential component of high quality habitat
Timber rattlesnake (*Crotalus horridus*)	ST	--	Yes	May Impact	Potential habitat is present within or adjacent to the proposed ROW. Timber rattlesnakes prefer swamps, floodplains, upland pine and deciduous woodlands, riparian zones, abandoned farmland; limestone bluffs, sandy soil or black clay; prefers dense ground cover that is found within or adjacent to the proposed ROW.

Sources: Encyclopedia of Life (EOL) 2017a,b,c; IUCN 2017a,b,c,d,e,f,g,h,I,j,k,l,m,n,o,p,q; LDWF 2017; Natureserve 2017a,b,c,d,e,f; TPWD 2005, 2009, 2011 2016, and 2017a,b; UT 2017; USFWS 2010, 2016, and 2017 a,b,c,d; USGS 1950.

USFWS (E = Endangered, T = Threatened, C = Federally Candidate for Listing, DL = Delisted)

(1) Species has been delisted by USFWS and have officially lost protective status.

TPWD (DL = Delisted Taxon, SGCN = species of greatest conservation need, ST = State threatened, SE = State endangered)

If conflict exists between federal and state listing status, the federal status takes precedence over the state status.

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ANGELINA COUNTY

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.

Bachman's Sparrow	*Aimophila aestivalis*		T

open pine woods with scattered bushes and grassy understory in Pineywoods region, brushy or overgrown grassy hillsides, overgrown fields with thickets and brambles, grassy orchards; remnant grasslands in Post Oak Savannah region; nests on ground against grass tuft or under low shrub

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

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.

Piping Plover	*Charadrius melodus*	LT	T

wintering migrant along the Texas Gulf Coast; beaches and bayside mud or salt flats

Red-cockaded Woodpecker	*Picoides borealis*	LE	E

cavity nests in older pine (60+ years); forages in younger pine (30+ years); prefers longleaf, shortleaf, and loblolly

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.

ANGELINA COUNTY

BIRDS

		Federal Status	State Status
Swallow-tailed Kite	*Elanoides forficatus*		T

lowland forested regions, especially swampy areas, ranging into open woodland; marshes, along rivers, lakes, and ponds; nests high in tall tree in clearing or on forest woodland edge, usually in pine, cypress, or various deciduous trees

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 nechesae*		

simple burrows in temporary or semi permanent pools in roadside ditches

Texas prairie crayfish	*Fallicambarus devastator*		

grasslands:form extensive burrows in prairie grasslands

FISHES

		Federal Status	State Status
American eel	*Anguilla rostrata*		

coastal waterways below reservoirs to gulf; spawns January to February in ocean, larva move to coastal waters, metamorphose, then females move into freshwater; most aquatic habitats with access to ocean, muddy bottoms, still waters, large streams, lakes; can travel overland in wet areas; males in brackish estuaries; diet varies widely, geographically, and seasonally

Creek chubsucker	*Erimyzon oblongus*		T

tributaries of the Red, Sabine, Neches, Trinity, and San Jacinto rivers; small rivers and creeks of various types; seldom in impoundments; prefers headwaters, but seldom occurs in springs; young typically in headwater rivulets or marshes; spawns in river mouths or pools, riffles, lake outlets, upstream creeks

Orangebelly darter	*Etheostoma radiosum*		

Red through Angelina River basins; just headwaters ranging from high gradient streams to more sluggish lowland streams, gravel and rubble riffles preferred; eggs buried in gravel and riffle raceways, post-larvae live in quiet water, move into progressively faster water as they mature, young feed mostly on copepods and cladocerans, adults on mayfly and fly larvae, spawn late February through mid-April in eastern Texas

Paddlefish	*Polyodon spathula*		T

prefers large, free-flowing rivers, but will frequent impoundments with access to spawning sites; spawns in fast, shallow water over gravel bars; larvae may drift from reservoir to reservoir

ANGELINA COUNTY

MAMMALS

		Federal Status	State Status
Black bear	*Ursus americanus*		T
bottomland hardwoods and large tracts of inaccessible forested areas			
Louisiana black bear	*Ursus americanus luteolus*	DL	T
possible as transient; bottomland hardwoods and large tracts of inaccessible forested areas			
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			
Rafinesque's big-eared bat	*Corynorhinus rafinesquii*		T
roosts in cavity trees of bottomland hardwoods, concrete culverts, and abandoned man-made structures			
Red wolf	*Canis rufus*	LE	E
extirpated; formerly known throughout eastern half of Texas in brushy and forested areas, as well as coastal prairies			
Southeastern myotis bat	*Myotis austroriparius*		
roosts in cavity trees of bottomland hardwoods, concrete culverts, and abandoned man-made structures			

MOLLUSKS

		Federal Status	State Status
Louisiana pigtoe	*Pleurobema riddellii*		T
streams and moderate-size rivers, usually flowing water on substrates of mud, sand, and gravel; not generally known from impoundments; Sabine, Neches, and Trinity (historic) River basins			
Sandbank pocketbook	*Lampsilis satura*		T
small to large rivers with moderate flows and swift current on gravel, gravel-sand, and sand bottoms; east Texas, Sulfur south through San Jacinto River basins; Neches River			
Southern hickorynut	*Obovaria jacksoniana*		T
medium sized gravel substrates with low to moderate current; Neches, Sabine, and Cypress river basins			
Texas heelsplitter	*Potamilus amphichaenus*		T
quiet waters in mud or sand and also in reservoirs. Sabine, Neches, and Trinity River basins			
Texas pigtoe	*Fusconaia askewi*		T
rivers with mixed mud, sand, and fine gravel in protected areas associated with fallen trees or other structures; east Texas River basins, Sulphur River, Cypress Creek, Sabine through Trinity rivers as well as San Jacinto River			
Triangle pigtoe	*Fusconaia lananensis*		T
mixed mud, sand, and fine gravel substrates; Neches River basin in the Angelina branch and possibly Village Creek			

ANGELINA COUNTY

REPTILES

		Federal Status	State Status
Alligator snapping turtle	*Macrochelys temminckii*		T

perennial water bodies; deep water of rivers, canals, lakes, and oxbows; also swamps, bayous, and ponds near deep running water; sometimes enters brackish coastal waters; usually in water with mud bottom and abundant aquatic vegetation; may migrate several miles along rivers; active March-October; breeds April-October

Louisiana pine snake	*Pituophis ruthveni*	C	T

mixed deciduous-longleaf pine woodlands; breeds April-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
Boynton's oak	*Quercus boyntonii*		

Loblolly pine-oak forests on deep, sandy soils in creek bottoms; possibly also in shallower soils of upland prairies; flowering in the spring

Incised groovebur *Agrimonia incisa*

Sandy soils in dry to mesic pine or mixed pine-oak forests and forest borders; usually in fire-maintained longleaf pine savannas but also in more mesic habitats; Perennial; Flowering July-September

Large beakrush *Rhynchospora macra*

GLOBAL RANK: G3; Found in ombotropic quaking peat bogs; Perennial; Flowering/Fruiting Aug-Oct

Mohlenbrock's sedge *Cyperus grayioides*

GLOBAL RANK: G3; Deep sand and sandy loam in dry, almost barren openings in upland longleaf pine savannas, mixed pine-oak forests, and post oak woodlands; Occurs primarily in deep, periodically disturbed sandy soils in open areas maintained by factors such as wind, erosion, or fire. This species does not occur in shaded areas or in areas of high competition with other herbaceous species. Habitats include remnant sand prairies, sandy fields, sand "blow outs", sandhill woodlands, pine barrens, and open barrens in which the slope is sufficient to produce sand erosion. May also occur in areas where the soils have been disturbed by logging or road construction; Perennial

Panicled indigobush *Amorpha paniculata*

A stout shrub, 3 m (9 ft) tall that grows in acid seep forests, peat bogs, wet floodplain forests, and seasonal wetlands on the edge of Saline Prairies in East Texas. It is distinguished from other Amorpha species by its fuzzy leaflets with prominent raised veins underneath, and the flower panicles, which are 8 to 16 inches long and slender, held above the foliage. Perennial; Flowering summer

Texas screwstem *Bartonia texana*

in and around acid seeps in Pine-Oak forests on gentle slopes and baygall shrub thickets at spring heads; often on clumps of bryophytes at tree bases, on roots, and on logs; flowering September-November, can be identified in mid to late October when its in fruit

ANGELINA COUNTY

PLANTS

Federal Status State Status

Texas trillium *Trillium texanum*

in or along the margins of hardwood forests on wet acid soils of bottoms and lower slopes, strongly associated with forested seeps and baygalls; flowering March-May

Yellow fringeless orchid *Platanthera integra*

GLOBAL RANK: G3G4; Currently known only from a few bog sites in Angelina, Jasper and Newton counties; Perennial; Flowering/Fruiting Aug

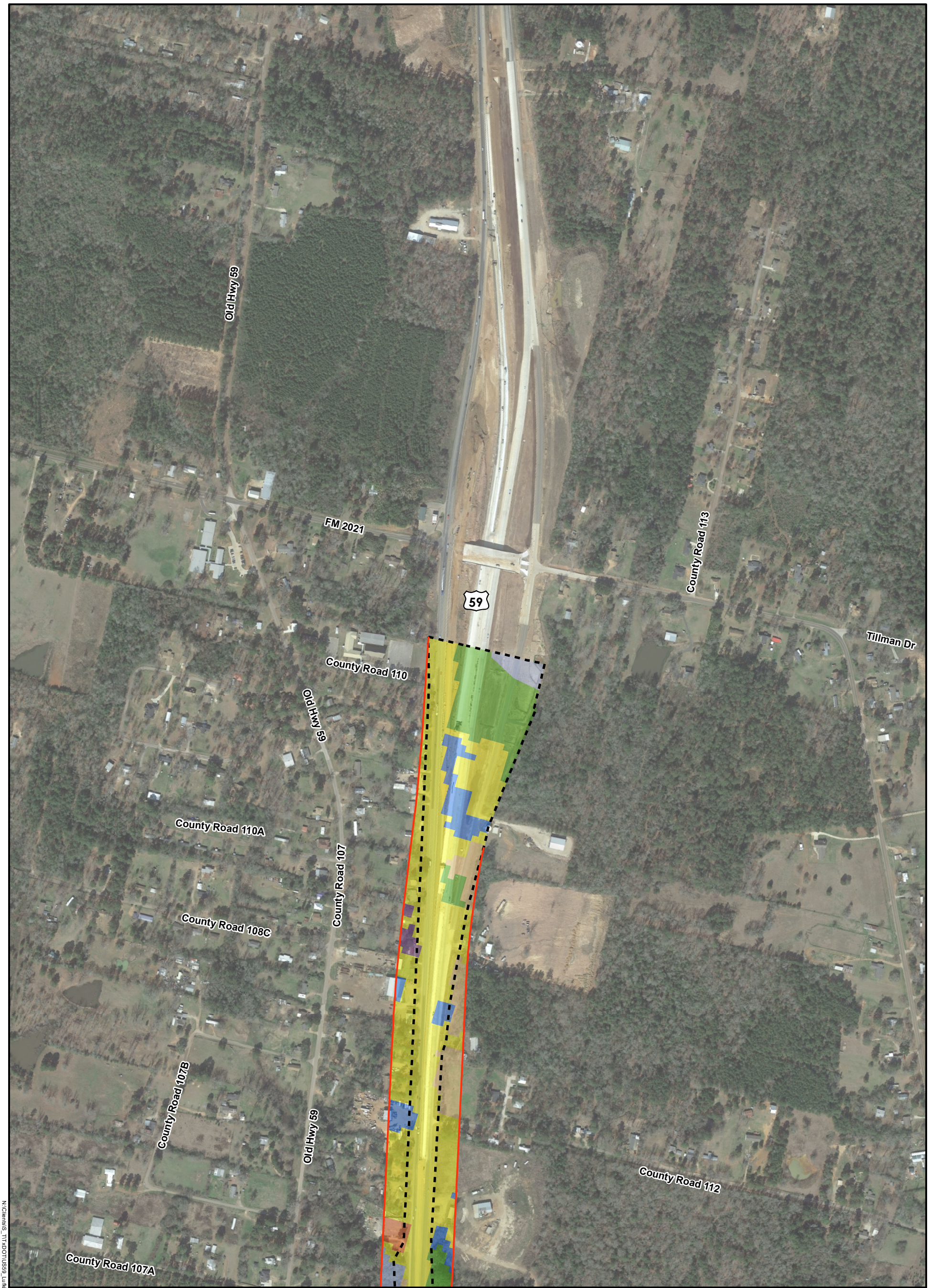
Attachment 3:

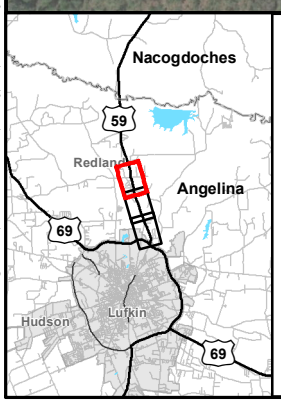
EMST and Actual Vegetation

US 59: Upgrade Redland, TX		
EMST Vegetation		
Vegetation Community	**MOU Type**	**Acres**
Open Water	Azonal	0.81
	Azonal Total	**0.81**
Pineywoods: Disturbance or Tame Grassland	Disturbed Prairie	26.97
	Disturbed Prairie Total	**26.97**
Pineywoods: Herbaceous Seepage Bog	Floodplain	0.27
Pineywoods: Bottomland Herbaceous Wetland	Floodplain	0.00
	Floodplain Total	**0.27**
Pineywoods: Pine Forest or Plantation	Mixed Woodlands and Forest	4.75
Pineywoods: Pine - Hardwood Forest or Plantation	Mixed Woodlands and Forest	6.12
Pineywoods: Upland Hardwood Forest	Mixed Woodlands and Forest	6.69
Pineywoods: Southern Mesic Pine - Hardwood Forest	Mixed Woodlands and Forest	1.57
Pine Plantation > 3 meters tall	Mixed Woodlands and Forest	0.08
	Mixed Woodlands and Forest Total	**19.21**
Pineywoods: Small Stream and Riparian Temporarily Flooded Hardwood Forest	Riparian	0.04
Pineywoods: Small Stream and Riparian Wet Prairie	Riparian	6.44
Pineywoods: Small Streamand Riparian Herbaceous Wetland	Riparian	0.00
	Riparian Total	**6.48**
Native Invasive: Deciduous Shrubland	Scrub, Thornscrub, Shrubland	0.47
	Scrub, Thornscrub, Shrubland Total	**0.47**
Urban High Intensity	Urban	25.74
Urban Low Intensity	Urban	31.36
	Urban Total	**57.10**

US 59: Upgrade Redland, TX		
Actual Vegetation		
Vegetation Community	**MOU Type**	**Acres**
Open Water	Azonal	1.44
	Azonal Total	**1.44**
Pineywoods: Disturbance or Tame Grassland	Disturbed Prairie	21.32
	Disturbed Prairie Total	**21.32**
Pineywoods: Herbaceous Seepage Bog	Floodplain	0.00
Pineywoods: Bottomland Herbaceous Wetland	Floodplain	6.01
	Floodplain Total	**6.01**
Pineywoods: Pine Forest or Plantation	Mixed Woodlands and Forest	0.00
Pineywoods: Pine - Hardwood Forest or Plantation	Mixed Woodlands and Forest	0.00
Pineywoods: Upland Hardwood Forest	Mixed Woodlands and Forest	4.74
Pineywoods: Southern Mesic Pine - Hardwood Forest	Mixed Woodlands and Forest	0.00
Pine Plantation > 3 meters tall	Mixed Woodlands and Forest	0.00
	Mixed Woodlands and Forest Total	**4.74**
Pineywoods: Small Stream and Riparian Temporarily Flooded Hardwood Forest	Riparian	0.86
Pineywoods: Small Stream and Riparian Wet Prairie	Riparian	0.00
Pineywoods: Small Streamand Riparian Herbaceous Wetland	Riparian	0.49
	Riparian Total	**1.35**
Native Invasive: Deciduous Shrubland	Scrub, Thornscrub, Shrubland	0.00
	Scrub, Thornscrub, Shrubland Total	**0.00**
Urban High Intensity	Urban	26.95
Urban Low Intensity	Urban	49.51
	Urban Total	**76.46**

US 59: Upgrade Redland, TX		
Comparison Table of EMST vs Actual Vegetation Types		
MOU Type	**EMST (acres)**	**Actual (Acres)**
Azonal	0.81	1.44
Disturbed Prairie	26.97	21.32
Floodplain	0.27	6.01
Mixed Woodlands and Forest	19.21	4.74
Riparian	6.48	1.35
Scrub, Thornscrub, Shrubland	0.47	0.00
Urban	57.1	76.46
Total	**111.31**	**111.31**





Proposed ROW
Existing ROW
59 US Route

Vegetation Types

- Native Invasive: Deciduous Shrubland
- Open Water
- Pine Plantation > 3 meters tall
- Pineywoods: Disturbance or Tame Grassland
- Pineywoods: Herbaceous Seepage Bog
- Pineywoods: Pine - Hardwood Forest or Plantation
- Pineywoods: Pine Forest or Plantation
- Pineywoods: Small Stream and Riparian Temporarily Flooded Hardwood Forest
- Pineywoods: Small Stream and Riparian Wet Prairie
- Pineywoods: Southern Mesic Pine - Hardwood Forest
- Pineywoods: Upland Hardwood Forest
- Urban High Intensity
- Urban Low Intensity

0 250 500 Feet

Google, TNRIS. Texas Google Imagery Service. 2015. 1:6,000; generated by Atkins; using ArcMap. < https://tnris.org/texas-google-imagery/> (25 July 2018); TPWD (2013)

FIGURE 2
EMST VEGETATION TYPES
US 59: UPGRADE REDLAND, TX
FROM SOUTH OF FM 2021 TO NORTH OF LOOP 287
ANGELINA COUNTY, TEXAS
CSJ: 0176-02-118

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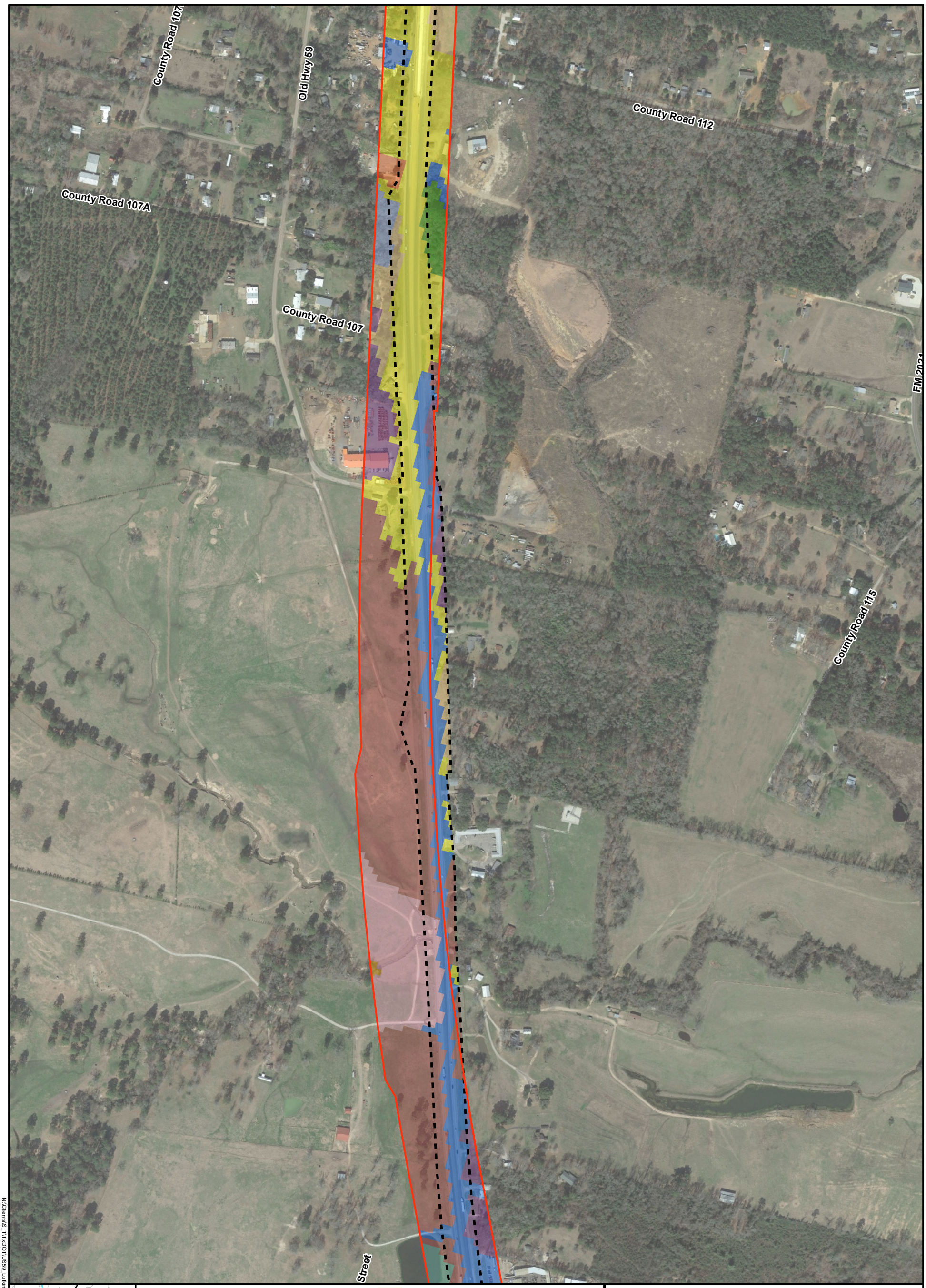

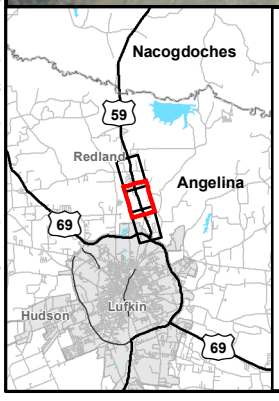

Proposed ROW
Existing ROW
59 US Route

Vegetation Types

- Native Invasive: Deciduous Shrubland
- Open Water
- Pine Plantation > 3 meters tall
- Pineywoods: Disturbance or Tame Grassland
- Pineywoods: Herbaceous Seepage Bog
- Pineywoods: Pine - Hardwood Forest or Plantation
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- Pineywoods: Small Stream and Riparian Temporarily Flooded Hardwood Forest
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FIGURE 2
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FROM SOUTH OF FM 2021 TO NORTH OF LOOP 287
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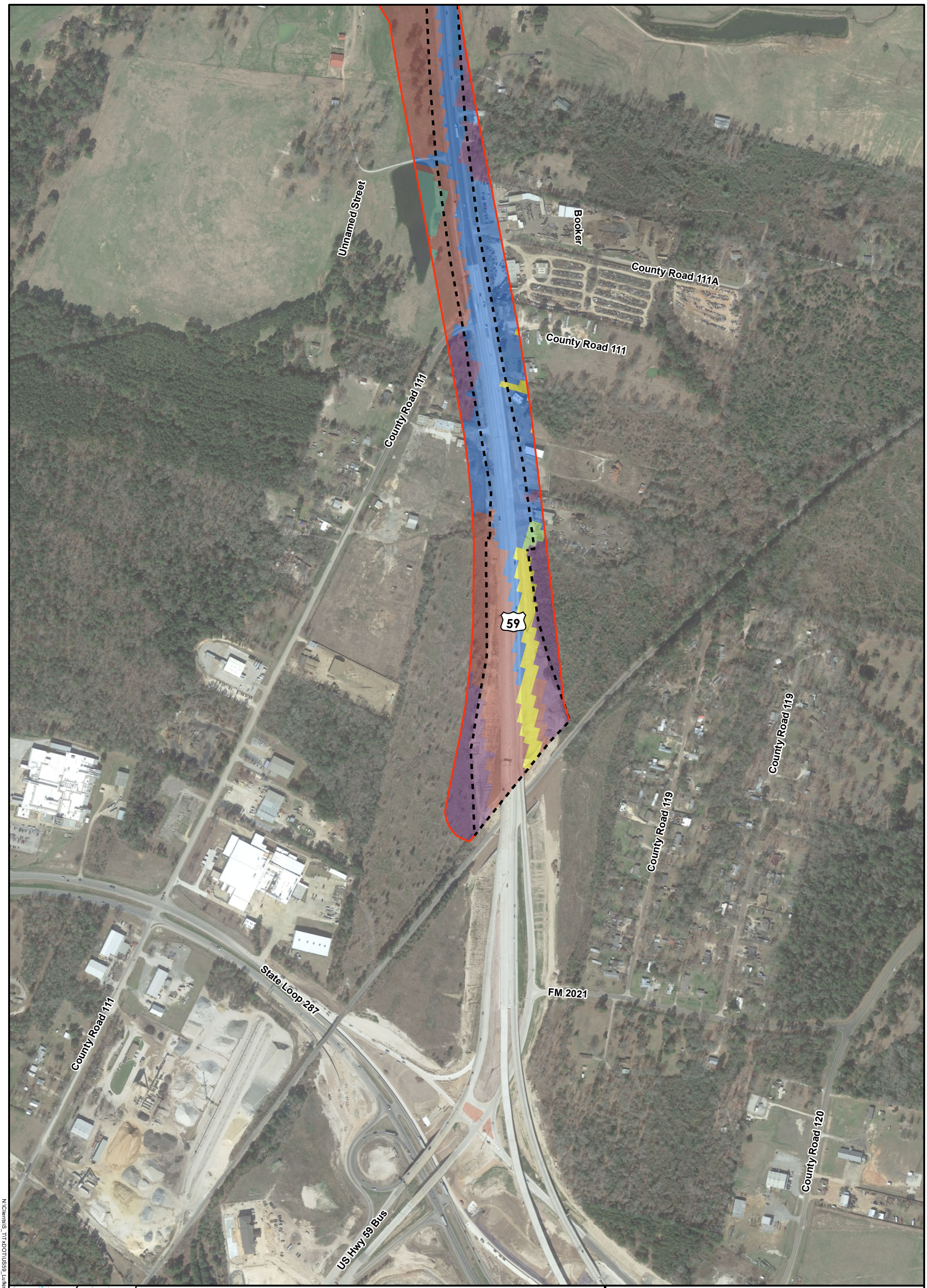

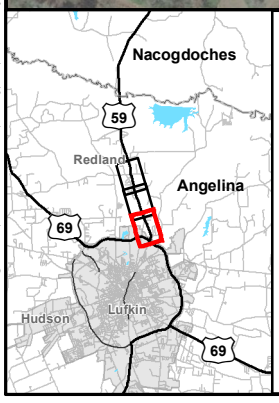

Proposed ROW
Existing ROW
59 US Route

Vegetation Types

- Native Invasive: Deciduous Shrubland
- Open Water
- Pine Plantation > 3 meters tall
- Pineywoods: Disturbance or Tame Grassland
- Pineywoods: Herbaceous Seepage Bog
- Pineywoods: Pine - Hardwood Forest or Plantation
- Pineywoods: Pine Forest or Plantation
- Pineywoods: Small Stream and Riparian Temporarily Flooded Hardwood Forest
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0 250 500 Feet

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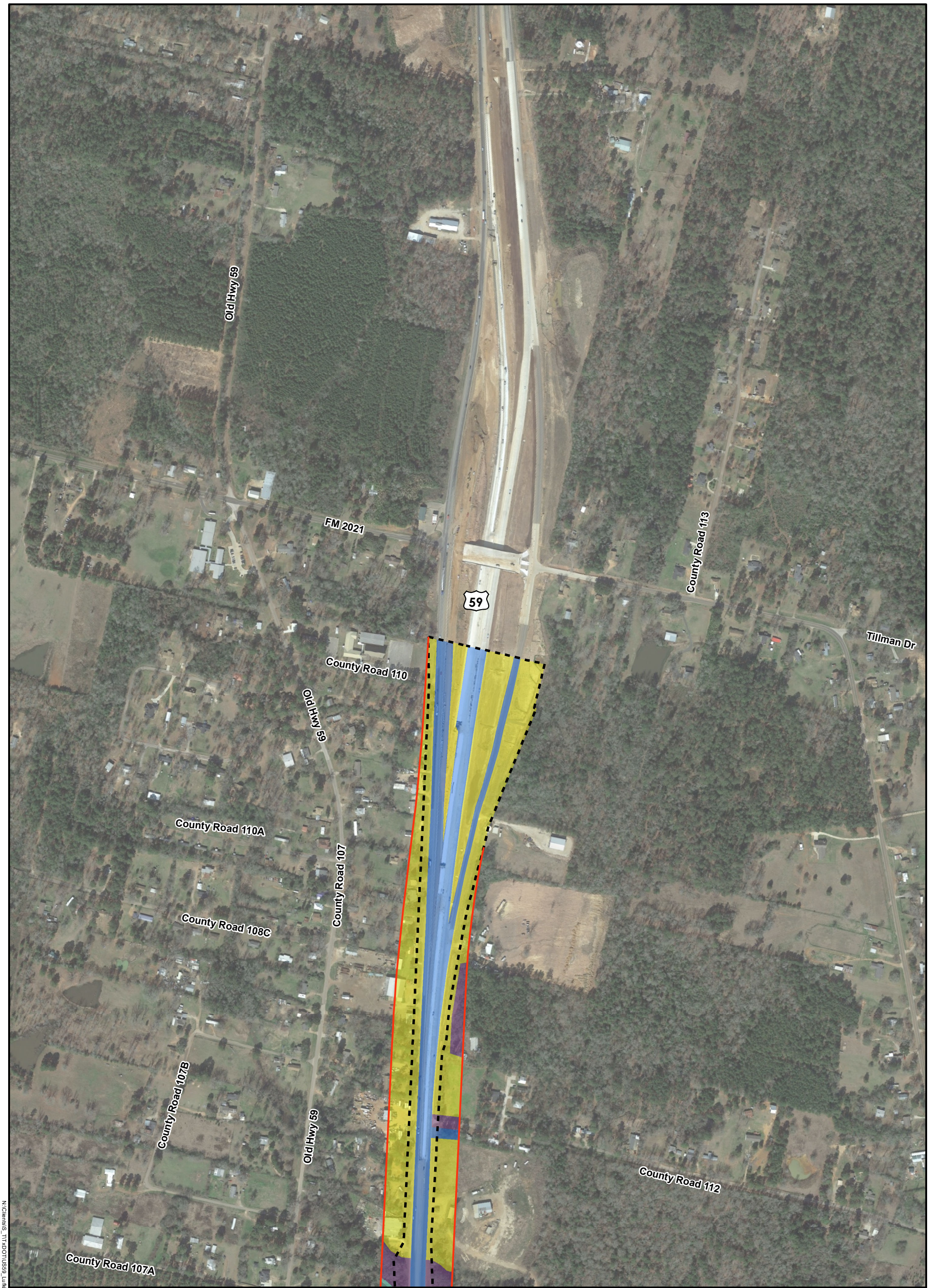

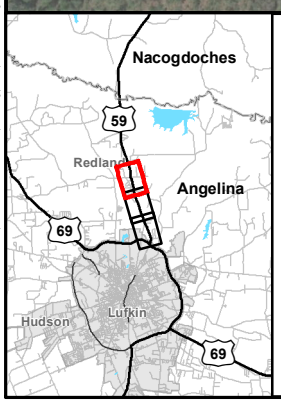

Proposed ROW
Existing ROW
59 US Route

Vegetation Types
- Open Water
- Pineywoods: Bottomland Herbaceous Wetland
- Pineywoods: Disturbance or Tame Grassland
- Pineywoods: Small Stream and Riparian Temporarily Flooded Hardwood Forest
- Pineywoods: Small Stream and Riparian Herbaceous Wetland
- Pineywoods: Upland Hardwood Forest
- Urban High Intensity
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0 250 500 Feet

FIGURE 2
ACTUAL VEGETATION TYPES
US 59: UPGRADE REDLAND, TX
FROM SOUTH OF FM 2021 TO 0.34 MILE
NORTH OF SL 287
ANGELINA COUNTY, TEXAS
CSJ: 0176-02-118

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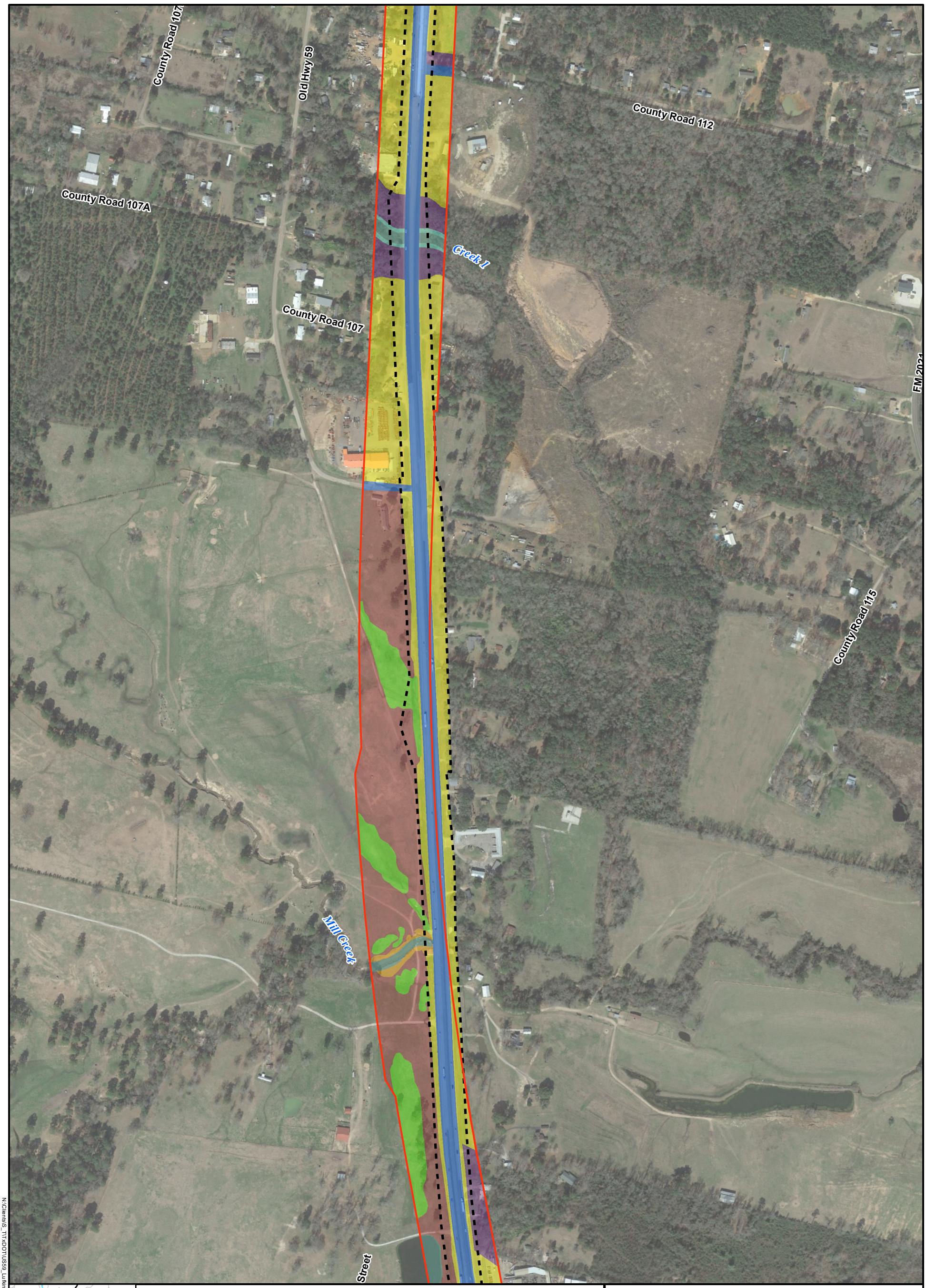

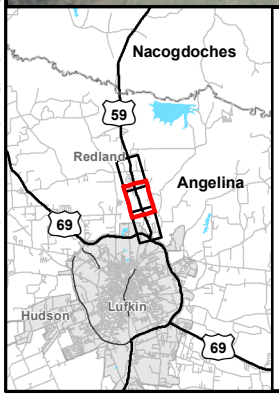

Proposed ROW
Existing ROW
59 US Route

Vegetation Types
- Open Water
- Pineywoods: Bottomland Herbaceous Wetland
- Pineywoods: Disturbance or Tame Grassland
- Pineywoods: Small Stream and Riparian Temporarily Flooded Hardwood Forest
- Pineywoods: Small Stream and Riparian Herbaceous Wetland
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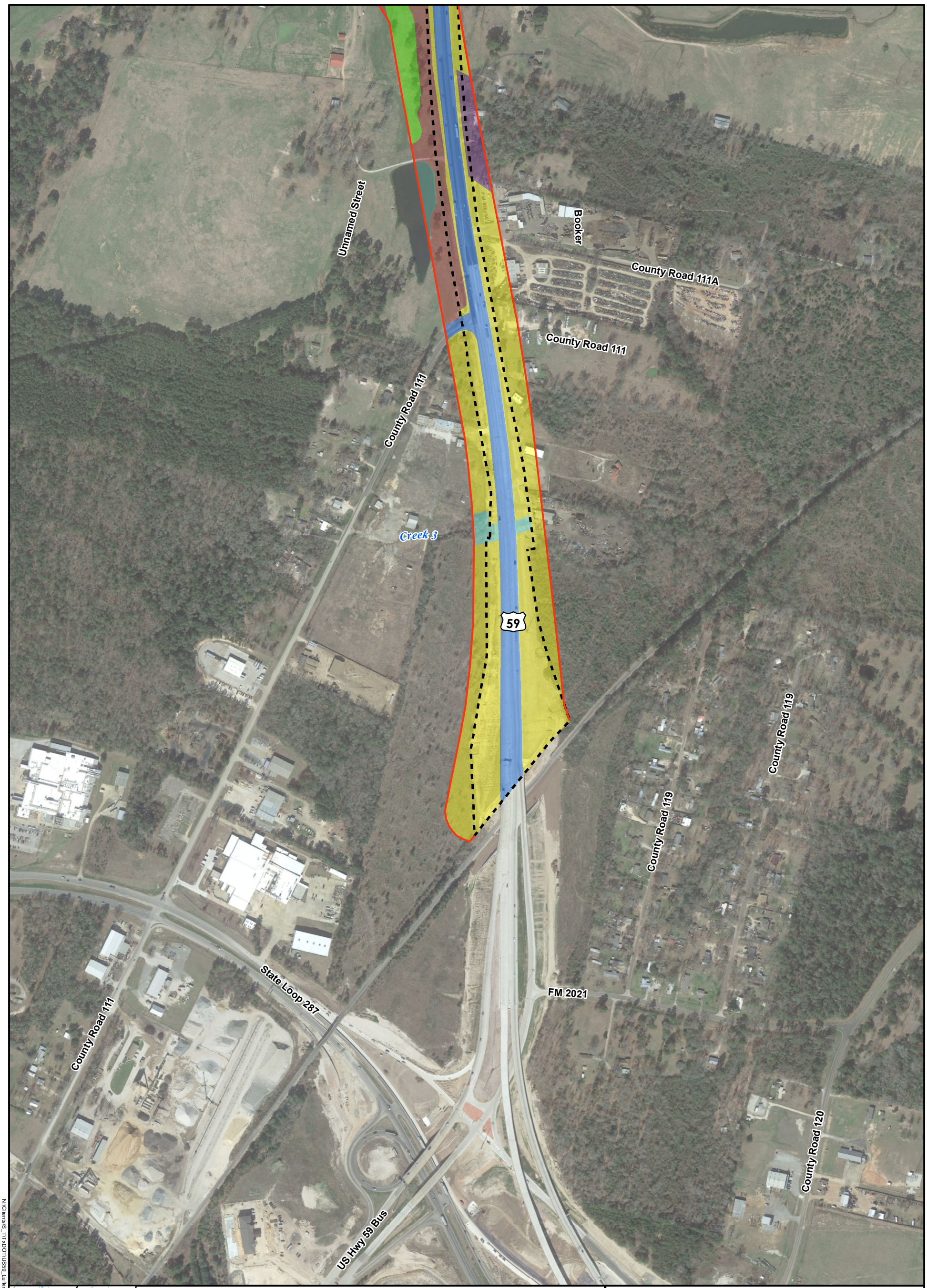

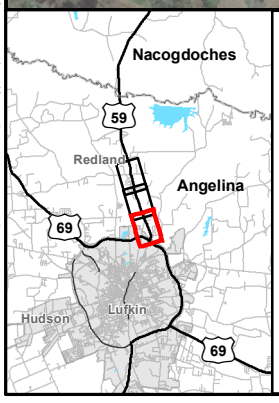

Proposed ROW
Existing ROW
59 US Route

Vegetation Types
- Open Water
- Pineywoods: Bottomland Herbaceous Wetland
- Pineywoods: Disturbance or Tame Grassland
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Attachment 4:

Representative Photos

US 59 Upgrade – Lufkin to Redland
Attachment C: Representative Photographs of Proposed Area (July 2017)
CSJ: 0176-02-118

Photo 1: Typical Pineywoods: Small Stream and Riparian Herbaceous Wetland vegetation community within or adjacent to the proposed project ROW, facing west, connected to Mill Creek (31.388887°, -94.715974°).

Photo 2: Typical Pineywoods: Small Stream and Riparian Herbaceous Wetland vegetation community within or adjacent to the proposed ROW, facing east, connected to Mill Creek (31.388887, -94.715974).

Photo 3: Typical Pineywoods: Small Stream and Riparian Temporarily Flooded Hardwood Forest vegetation community within or adjacent to the proposed project ROW, facing west, connected to Creek 1 (31.398883°, -94.718981°).

Photo 4: Typical Pineywoods: Small Stream and Riparian Temporarily Flooded Hardwood Forest vegetation community within or adjacent to the proposed project ROW, facing west, connected to Creek 1 (31.398883°, -94.718981°).

Photo 5: Typical Pineywoods: Bottomland Herbaceous Wetland vegetation community within or adjacent to the proposed project ROW, facing north. (31.385204°, -94.714944°).

Photo 6: Typical Pineywoods: Bottomland Herbaceous Wetland vegetation community within or adjacent to the proposed project ROW, facing north. (31.392992°, -94.717250°).

Photo 7: Typical Pineywoods: Disturbance or Tame Grassland vegetation community within or adjacent to the proposed project ROW, facing north (31.389568°, -94.716308°).

Photo 8: Typical Pineywoods: Disturbance or Tame Grassland vegetation community within or adjacent to the proposed project ROW, facing south (31.389568°, -94.716308°).

Photo 9: Typical Pineywoods: Open Water, Pond 1, vegetation community within or adjacent to the proposed project ROW, facing west (31.383558°, -94.714049°).

Photo 10: Typical Pineywoods: Open Water, Pond 1, vegetation community within or adjacent to the proposed project ROW, facing south (31.383558°, -94.714049°).

Photo 11: Typical Urban High Intesity vegetation community within or adjacent to the proposed ROW facing south (31.400454°,-94.718988°).

Photo 12: Typical Urban High Intensity vegetation community within or adjacent to the proposed project ROW, facing west (31.401814°, -94.719888°).

Photo 13: Typical Urban Low Intensity vegetation community within or adjacent to the proposed project ROW, facing north (31.404559°, -94.720253°).

Photo 14: Typical Urban Low Intensity vegetation community with or adjacent to the proposed project ROW, facing south (31.398964°, -94.718482°).

From: Suzanne Walsh
To: Jennifer Adams
Cc: John Maresh; Laura Zebehazy; Jodi Bechtel
Subject: RE: Early Coordination: US 59 Redland (CSJ: 0176-02-118) Angelina County LFK District
Date: Wednesday, October 17, 2018 5:14:37 PM

This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Jennifer,

Thank you for sharing the perspective of the Lufkin District regarding the implementation of BMPs. The additional information that you provided was helpful to provide a better understanding of the rationale for what the district would/would not implement. Please continue to include language in future projects that specifies the reasoning/explanation for why some measures of the authorized BMPs in Section 1 have been excluded when the proposed project has the potential to impact suitable habitat.

We appreciate the efforts of the Lufkin District to discourage the use of plastic netting in erosion control materials as these small changes may provide important protections to our wildlife species. Also, we are encouraged that the Lufkin District will continue to comply with MBTA. Additionally, TPWD has regulations concerning the protection of nongame birds. I am including a link to Chapter 64 of the Parks and Wildlife Code for your reference (see sections 64.002 and 64.003): https://statutes.capitol.texas.gov/Docs/PW/htm/PW.64.htm

If I can be of assistance to the Lufkin District with the USACE required compensatory mitigation for this project, please let me know. As the Transportation Conservation Coordinator, I am here to assist districts with identifying conservation options and implementing conservation strategies, such as mitigation banking, with the overall goal to increase the environmental value of project mitigation conducted by TxDOT.

With that being said, thank you for submitting the following project for early coordination: US 59 Redland in Angelina County (CSJ: 0176-02-118). TPWD appreciates TxDOT's commitment to implement the practices listed in the Tier I Site Assessment form submitted on August 2, 2018 and in the emails below. Based on a review of the documentation, the avoidance and mitigation efforts described, and provided that project plans do not change, TPWD considers coordination to be complete. However, please note it is the responsibility of the project proponent to comply with all federal, state, and local laws that protect plants, fish, and wildlife.

According to §2.204(g) of the 2013 TxDOT-TPWD MOU, TxDOT agreed to provide TXNDD reporting forms for observations of tracked SGCN (which includes federal- and state-listed species) occurrences within TxDOT project areas. Please keep this mind when completing project due diligence tasks. For TXNDD submission guidelines, please visit the following link: http://tpwd.texas.gov/huntwild/wild/wildlife_diversity/txndd/submit.phtml

Sincerely,

Suzanne Walsh
Transportation Conservation Coordinator
(512) 389-4579

From: Jennifer Adams <Jennifer.Adams@txdot.gov>
Sent: Thursday, October 11, 2018 11:54 AM
To: Suzanne Walsh <Suzanne.Walsh@tpwd.texas.gov>
Cc: John Maresh <John.Maresh@txdot.gov>; Laura Zebehazy <Laura.Zebehazy@tpwd.texas.gov>; Jodi Bechtel <Jodi.Bechtel@txdot.gov>
Subject: RE: Early Coordination: US 59 Redland (CSJ: 0176-02-118) Angelina County LFK District

Hey Suzanne,

Appreciate the patience, I got super busy. Below I've outlined the BMPs you recommended in your email along with the District's consideration (red) of whether this would or would not be feasible. Coordination for this project was required due to 4 triggers outlined in the MOU (NWP with PCN, species, thresholds, riparian impacts). Per the PA the implementation of BMPs can eliminate the need for coordination; however, since this project hit various other triggers and the district did not feel that all of the species BMPs were feasible/practicable, coordination on this project was required.

During the development of the schematic and prep of the Tier I, the LFK District carefully reviewed the BMP PA and implemented those BMPs we felt were feasible/practicable. These BMPs will continue to be considered by the district during the development of the PS&E. These BMPs will be implemented in various locations of the PS&E where we feel the message is best delivered to the contractor. Some items are built into the design (plan sheets and quantities), some are special notes in our general notes, and some included in our EPIC sheet.

The Lufkin District does not list every BMP implemented in the EPIC or include BMPs that we have considered and do not feel are feasible/practicable into the PS&E, because we feel it dilutes our direction to the contractor and takes focus away from the areas that we want them to focus. The decision to implement a BMP is made by the District and not the contractor.

- **Bird BMPS**
  - Prior to construction, perform daytime surveys for nests including under bridges and in culverts to determine if they are active before removal. Nests that are active should not be disturbed. TxDOT Lufkin District will be surveying culverts and bridges prior to any potential disturbance; however, TxDOT Lufkin District does not propose to survey wooded acreage. The likelihood of finding nests in these areas would be slim. It is the districts intent to postpone clearing of woody vegetation be done outside of the nesting season. Notes regarding removal of nests, eggs, young and birds are included in the EPIC and we note clearing timeframe in our general notes. We consider this

part of the MBTA compliance (understand the complexity with that issue now; however, the district has not changed our mode of operation).

- Do not disturb, destroy, or remove active nests, including ground nesting birds during the nesting season. LFK considered this part of MBTA compliance. TxDOT Lufkin District EPIC includes a note for contractor to avoid impacts to birds and active and to contact the Area Engineer could construction result in an impact.
- Avoid the removal of unoccupied, inactive nests, as practicable. TxDOT Lufkin District EPIC sheet has a note stating that inactive nests may be removed. TxDOT did not implement this BMP as the existing bridge will be removed and all woody vegetation is proposed to be removed from the ROW. It is our assumption that there are likely unoccupied nests somewhere in these areas that will either be removed during clearing or removal of the bridge.
- Prevent the establishment of active nests during the nesting season on TxDOT owned and operated facilities and structures proposed for replacement and repair. TxDOT Lufkin District has a note in on the EPIC regarding the use of exclusion devices to prevent birds from establishing nests.
- Do not collect, capture, relocate, or transport birds, eggs, young or active nests without a permit. District has a note in the EPIC stating that the contract shall avoid impacts to birds and active nests (young and/or eggs) and that anyone that violates MBTA may be held strictly liable for actions that result in unpermitted take.

- **Aquatic Reptile BMPs**
  - Contractors will be advised of potential occurrence and to avoid harming – District has agreed to this note.
  - Minimize impacts to wetland, temporary and permanent water features, including depressions and riverine habitats – as part of our analysis under section 404 the district will be minimizing impacts to waters of the U.S. to the maximum extent practicable. In discussions on 9/21 and 10/2 we discussed some of proposed impacts and minimization further.
  - Maintain hydrologic regime and connections between wetland and other aquatic features. As shown in the schematic, the district has proposed to include bridges for the main lanes and frontage road at Mill Creek and its associated emergent wetlands to maintain this connection in lieu of a fill section.
  - Use barrier fencing to direct animal movements away from construction activities and areas of potential wildlife-vehicle collisions in construction areas directly adjacent, or that may be directly impact, potential habitat for the target species. TxDOT Lufkin District does not commit to placing barrier fencing. TxDOT Lufkin District will be utilizing silt fence to prevent sediment from entering avoided wetlands and adjacent private properties. In these areas, the silt fence would work as a secondarily as a barrier.
  - Apply hydromulching and/or hydroseeding in areas for soil stabilization and/or revegetation of disturbed areas where feasible. If hydromulching and/or hydroseeding are not feasible due to site conditions, using erosion control blankets or mats that contain no netting or only contain loosely woven natural fiber netting is preferred. Plastic netting should be avoided to the extent practicable. TxDOT Lufkin District includes notes within our plans regarding this issue.

Project specific locations (PSLs) proposed within state-owned ROW should be located in uplands away from aquatic features. The plans will specify where no work areas (avoided wetlands) are located. These areas are off limits to earth disturbance including stockpiles an vehicle storage.

- When work is directly adjacent to water, minimize impacts to shoreline basking sites (e.g. downed trees, sand bars, exposed bedrock) and overwinter sites (e.g. brush and debris piles, crayfish burrows) where feasible. Most water features are within previously cleared and active agricultural property (pasture). There are a few areas where woody vegetation occurs adjacent to water features. Clearing of woody vegetation within the proposed ROW will be required. No work areas protecting avoided wetlands will be established in the plans. TxDOT Lufkin District will consider this when evaluating ways to minimizing impacts to streams below the ordinary high water mark; however, it is highly likely that downed trees and brush located within a channel in the proposed ROW may have to be removed to ensure stream channels are flowing adequately to avoid damming and potential erosion to newly constructed structures and adjacent properties.
- Avoid or minimize disturbing or removing downed trees, rotting stumps and leaf litter which may be refugia for terrestrial amphibians, where feasible. TxDOT Lufkin District has considered this and determined not feasible due to the work needed to establish new ditch lines, relocate utilities, etc.
- If gutters and curbs are part of the roadway design, where feasible install gutters that do not include the side box inlet and include sloped (i.e. mountable) curbs to allow small animals to leave the roadway. If this modification to the entire curb system is not possible, install sections of sloped curb on either side of the storm water drain for several feet to allow small animals to leave the roadway. Priority areas for these design recommendations are those with nearby wetlands or other aquatic features. TxDOT Lufkin District will be bridging Mill creek and its associated wetlands with both main lane and frontage road bridges which covers the largest connected water features in the project area.
- For sections of roadway adjacent to wetlands or other aquatic features, install wildlife barriers that prevent climbing. Barriers should terminate at culvert openings in order to funnel animals under the road. The barriers should be of the same length as the adjacent feature or 80 feet long in each direction or whichever is the lesser of the two. TxDOT Lufkin District does not commit to this BMP. TxDOT Lufkin District will be bridging Mill creek and its associated wetlands with both main lane and frontage road bridges which covers the largest connected water features in the project area thus providing safe passage.
- For culvert extensions and culvert replacement/installation, incorporate measures that funnel animals toward culverts such as concrete wingwalls and barrier walls with overhangs. TxDOT Lufkin District will be installing concrete wingwalls on culverts per latest approved standards/specifications.
- When riprap and other stabilization devices are necessary, their placement should not impede the movement of terrestrial or aquatic wildlife through the water feature. Where feasible, biotechnical streambank stabilization methods using live native vegetation or a combination of vegetative and structural materials should be used.

TxDOT Lufkin District minimizes the amount of fill, including riprap and stabilizing devices, to the max extent practicable. It is the Lufkin Districts intent to maintain as much of the natural stream channel as possible. We also try to accomplish this by designing structures to span the channel and provide some room for natural stream migration.

- **Avoid or minimize disturbing or removing downed trees, rotting stumps, and leaf litter where feasible as stated the Terrestrial Reptile BMPs in the 2017 BMP PA** TxDOT Lufkin District has considered this and determined not feasible due to the work needed to establish new ditch lines, relocate utilities, etc.

I hope this sheds some light on our process and helps explain our thought process a little better.
Thanks!
Jennifer

From: Suzanne Walsh [mailto:Suzanne.Walsh@tpwd.texas.gov]
Sent: Tuesday, October 09, 2018 10:02 AM
To: Jennifer Adams
Cc: John Maresh; Laura Zebehazy
Subject: RE: Early Coordination: US 59 Redland (CSJ: 0176-02-118) Angelina County LFK District

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Hi Jennifer,

I appreciate the additional information that you provided to me. TPWD makes the following recommendations in addition to those listed below and submitted in the Tier I documentation:

- Implement Bird BMPs to ensure compliance with Chapter 64 of the Texas Parks and Wildlife Code
- Implement Aquatic Reptile BMPs and minimize impacts to wetland and riverine habitats for the alligator snapping turtle as stated in the 2017 BMP PA
- Avoid or minimize disturbing or removing downed trees, rotting stumps, and leaf litter where feasible as stated the Terrestrial Reptile BMPs in the 2017 BMP PA

Please indicate if TxDOT can commit to implementing the additional recommendations. Please feel free to contact me if you have any questions.

Thanks,
Suzanne

From: Jennifer Adams <Jennifer.Adams@txdot.gov>
Sent: Friday, October 5, 2018 11:29 AM

To: Suzanne Walsh <Suzanne.Walsh@tpwd.texas.gov>
Cc: John Maresh <John.Maresh@txdot.gov>
Subject: RE: Early Coordination: US 59 Redland (CSJ: 0176-02-118) Angelina County LFK District

Hey Suzanne,

No worries. See responses as follows:

Regarding bullets 1 – 4 - The BMPs listed on Pg. 4 – 5 of the Tier I are the ones that we reviewed and are proposing to implement. BMPs selected were for those species that were within range and suitable habitat and that we felt were feasible/practicable given the construction required for this project. If there are other BMPs that you would to recommend, please include them in your comments and we will consider.

Shifting of the alignment – essentially the entire ROW would be impacted by the proposed project. We will be shifting the main lanes to the west which will require us to remove the old roadway and re-establish necessary drainage for the main lanes.

Crayfish – While TxDOT is not proposing any BMPs for crayfish, some measures would be done as part of our normal construction activities. Typically construction is done during daylight and not when it is raining. I don't see any real reason we would consider nighttime construction on this project. Water quality BMPs will be implemented as part of our Section 402 and Section 404 permitting requirements. As we determine limits of construction and work on our Section 404 permitting, avoidance areas within wetlands would be established which would prohibit the use of equipment and earth disturbance in those areas. Some wetlands would be temporary impacts for access by construction equipment which would require them to place mats, etc. for equipment to run on.

Have a good weekend!
Jennifer

From: Suzanne Walsh [mailto:Suzanne.Walsh@tpwd.texas.gov]
Sent: Thursday, October 04, 2018 1:40 PM
To: Jennifer Adams
Cc: John Maresh
Subject: RE: Early Coordination: US 59 Redland (CSJ: 0176-02-118) Angelina County LFK District

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Hi Jennifer,

I am sorry for the confusion, and you are correct that I will send a statement about TPWD coordination being complete when I close out the project. I have a few more comments about the project before I finalize my review and close coordination.

- Can you confirm whether the district will implement authorized bird BMPS as stated in the 2017 BMP PA in addition to complying with the MBTA?

- Can you clarify the BMPs for the alligator snapping turtle? Will authorized aquatic reptile BMPs as stated in the 2017 BMP PA be used? There were only two from the list included on the Tier 1 form.

- Can you clarify why the following terrestrial reptile BMP (4th bullet; avoid or minimize disturbing or removing downed trees, rotting stumps, and leaf litter where feasible) was excluded from the list on the Tier 1 form?

- Are Rafinesque's big-eared and southeastern myotis bat BMPs being implemented by the district as a precautionary measure? The county list shows that both bats have the potential to occur within the project area. The coordination materials list only the southeastern myotis bat in the Tier I form, but the species impact table states that there is no impact for both bats (although cavity trees of bottomland hardwoods, concrete culverts, and abandoned man-mad structures are found within or adjacent to proposed ROW in which they may roost). Please clarify.

- Based on the KMZ, it looks like the road alignment will shift around the middle of the proposed project. Will the district be removing old pavement and fill?

- I reached out to the TPWD Invertebrate Biologist, Ben Hutchins, about measures to minimize impacts to crayfish (*Procambarus nechesae* and *Fallicambarus devastator)* within the project area. For *Procambarus nechesae*, BMPs to minimize erosion and protect stream water quality and quantity will help protect this species. BMPs for *Fallicambarus devastator* include avoidance of construction activities during rain or when standing water is on the ground, particularly at night, and minimizing soil compaction by use of track rather than wheel vehicles and vehicle/equipment storage in designated graveled areas.

Thanks,
Suzanne

From: Jennifer Adams <Jennifer.Adams@txdot.gov>
Sent: Wednesday, October 3, 2018 8:27 AM
To: Suzanne Walsh <Suzanne.Walsh@tpwd.texas.gov>
Cc: John Maresh <John.Maresh@txdot.gov>
Subject: RE: Early Coordination: US 59 Redland (CSJ: 0176-02-118) Angelina County LFK District

Good morning,

Is this the conclusion of the coordination? I thought usually there was a statement in the email with

the project comments that referred to the completion of coordination. Something like "Based on the commitments below and a review of the documentation and project description provided, the Wildlife Habitat Assessment Program does not anticipate significant adverse impacts to rare, threatened, or endangered species, or other fish and wildlife resources. However, please note it is the responsibility of the project proponent to comply with all federal, state, and local laws that protect fish and wildlife. Provided that the project plans do not change, TPWD considers coordination to be complete."

Trying to figure out if I need to update ECOS.
Thanks,
Jennifer

From: Jennifer Adams
Sent: Tuesday, October 02, 2018 3:26 PM
To: Suzanne Walsh
Cc: John Maresh
Subject: RE: Early Coordination: US 59 Redland (CSJ: 0176-02-118) Angelina County LFK District

See below in red:

From: Suzanne Walsh [mailto:Suzanne.Walsh@tpwd.texas.gov]
Sent: Tuesday, October 02, 2018 2:24 PM
To: Jennifer Adams
Cc: John Maresh
Subject: RE: Early Coordination: US 59 Redland (CSJ: 0176-02-118) Angelina County LFK District

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Jennifer,

Can the district include the following additional BMPs in the EPIC sheet:

- Project specific locations should be placed in upland areas outside of the floodplain/riparian corridor whenever possible. Yes these notes may be in other areas of the PS&E outside of the EPIC sheet (i.e. plan and profile, general notes, etc).
- Minimize the use of equipment in streams and riparian areas during construction. When possible, equipment access should be from banks or bridge decks. Yes these notes may be in other areas of the PS&E outside of the EPIC sheet (i.e. plan and profile, general notes, etc).
- When temporary stream crossings are unavoidable, remove stream crossings once they are no longer needed and stabilize banks and soils around the crossing. Yes – restoration of areas affected by temporary fills is general condition 13 of nationwide permits. This will be included in our PS&E in our Nationwide Permit sheet.
- If dewatering activities are necessary, TxDOT and or the contractor would coordinate

with the TPWD Kills and Spills Team (KAST) to obtain necessary permits. Contact Greg Conley, TPWD Region 2 KAST, at greg.conley@tpwd.texas.gov or (903) 566-2518 for more information. Yes

Thanks,
Suzanne

From: Jennifer Adams <Jennifer.Adams@txdot.gov>
Sent: Tuesday, October 2, 2018 1:43 PM
To: Suzanne Walsh <Suzanne.Walsh@tpwd.texas.gov>
Cc: John Maresh <John.Maresh@txdot.gov>
Subject: RE: Early Coordination: US 59 Redland (CSJ: 0176-02-118) Angelina County LFK District

At this point it's hard to say as it will depend on the contractors method of work. I wouldn't rule it out.

From: Suzanne Walsh [mailto:Suzanne.Walsh@tpwd.texas.gov]
Sent: Tuesday, October 02, 2018 1:39 PM
To: Jennifer Adams
Cc: John Maresh
Subject: RE: Early Coordination: US 59 Redland (CSJ: 0176-02-118) Angelina County LFK District

This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

HI Jennifer,

Thank you for the additional information regarding my questions. Do you anticipate any dewatering needed for construction?

Suzanne

From: Jennifer Adams <Jennifer.Adams@txdot.gov>
Sent: Monday, October 1, 2018 4:34 PM
To: Suzanne Walsh <Suzanne.Walsh@tpwd.texas.gov>
Cc: John Maresh <John.Maresh@txdot.gov>
Subject: RE: Early Coordination: US 59 Redland (CSJ: 0176-02-118) Angelina County LFK District

Hey Suzanne,

Just wanted to see if you had any other questions.

Thanks
Jennifer

From: Jennifer Adams
Sent: Friday, September 21, 2018 5:47 PM
To: Suzanne Walsh
Cc: John Maresh
Subject: Re: Early Coordination: US 59 Redland (CSJ: 0176-02-118) Angelina County LFK District

Hi Suzanne,

Waters of the US - Exact impacts to waters will not be fully determined until we begin developing the detailed PS&E. It is our plan to not place fill (I.e bridge piles or riprap) below the OHWM at Mill Creek and bridge wetlands to keep permanent impacts below 0.5 acres. Permanent impacts within the emergent wetlands would be for bridge piles. Temporary impacts to the emergent wetlands would be associated with equipment access, etc. which would be required to use construction mats. Any necessary compensatory mitigation would be accomplished by deducting credits from the Anderson Tract Mitigation Bank. Once exact impacts are known, TxDOT will submit the NWP 14 PCN to the Ft Worth USACE.

Water Quality BMPs - We will be utilizing water quality BMPs. Again exact measures won't be known until development of detailed PS&E. Typical BMPs used at our district include Rock filter dams, silt fence, and erosion control blankets (which will not be allowed to contain plastic netting).

Im out of the office; however, I'll be reading emails periodically.

Thanks and have a good weekend,
Jennifer

Sent from my iPhone

On Sep 21, 2018, at 5:13 PM, Suzanne Walsh <Suzanne.Walsh@tpwd.texas.gov> wrote:

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Hi Jennifer,

Could you tell me more about the temporary and permanent impacts to jurisdictional waterbodies? Will TxDOT be implementing water quality BMPS for the proposed project?
The Tier I Site Assessment states that the proposed work will require a PCN. Are there plans for TxDOT to mitigate for impacts?

Thanks,
Suzanne

From: Jennifer Adams <Jennifer.Adams@txdot.gov>
Sent: Wednesday, September 19, 2018 8:55 AM
To: Suzanne Walsh <Suzanne.Walsh@tpwd.texas.gov>
Cc: John Maresh <John.Maresh@txdot.gov>
Subject: RE: Early Coordination: US 59 Redland (CSJ: 0176-02-118) Angelina County LFK District

Hello Suzanne,

I'm checking in on the Redland project status. Our consultant will be submitting the 90% schematic sometime next week. I was really hoping to get any comments/recommendations on the design from you before then.

I appreciate the update.
Jennifer

From: Suzanne Walsh [mailto:Suzanne.Walsh@tpwd.texas.gov]
Sent: Wednesday, September 05, 2018 4:59 PM
To: Jennifer Adams
Cc: John Maresh
Subject: RE: Early Coordination: US 59 Redland (CSJ: 0176-02-118) Angelina County LFK District

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Jennifer,

I am switching the places of the two Lufkin projects in my queue per your request. I will let you know if I have any other questions regarding the US 59 Redland in Angelina County.

Thanks,
Suzanne

From: Jennifer Adams <Jennifer.Adams@txdot.gov>
Sent: Wednesday, September 5, 2018 12:56 PM
To: Suzanne Walsh <Suzanne.Walsh@tpwd.texas.gov>
Cc: John Maresh <John.Maresh@txdot.gov>

Subject: Re: Early Coordination: US 59 Redland (CSJ: 0176-02-118) Angelina County LFK District

Yes please do.

Thanks
Jennifer

Sent from my iPhone

On Sep 5, 2018, at 12:22 PM, Suzanne Walsh <Suzanne.Walsh@tpwd.texas.gov> wrote:

This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Hi Jennifer,

I am currently reviewing the other US 59 project that the Lufkin District submitted from Shepherd to Cleveland (CSJ: 0177-02-057 and 0177-03-099) in San Jacinto and Liberty counties. We review TxDOT projects by date received. The US 59 project in San Jacinto and Liberty counties was received prior to the US 59 Redland (CSJ: 0176-02-118) in Angelina County, but it looks like I sent the initial coordination response to the Angelina County prior to the other project. I must have got them mixed up – sorry about that.

As of today, I have three other projects (including US 59 from Shepard to Cleveland) in my queue before this project. Are you needing environmental clearance for the Angelina County project prior to your other project? If needed, I can switch the places of your two projects.

Thanks,
Suzanne

From: Jennifer Adams <Jennifer.Adams@txdot.gov>
Sent: Wednesday, September 5, 2018 11:48 AM
To: Suzanne Walsh <Suzanne.Walsh@tpwd.texas.gov>

Cc: John Maresh <John.Maresh@txdot.gov>
Subject: RE: Early Coordination: US 59 Redland (CSJ: 0176-02-118) Angelina County LFK District

Good morning Suzanne,

I'm just checking in again on the status of any comments/questions regarding the US 59 Redland Upgrade project.

Please let me know if you need anything.
Thanks
Jennifer

From: Jennifer Adams
Sent: Thursday, August 23, 2018 3:25 PM
To: 'Suzanne Walsh'
Subject: RE: Early Coordination: US 59 Redland (CSJ: 0176-02-118) Angelina County LFK District

Hi Suzanne,

I just wanted to check in to see if you had any comments/questions on the Redland project.

Thanks!
Jennifer

From: Jennifer Adams
Sent: Friday, August 10, 2018 4:35 PM
To: Suzanne Walsh
Subject: RE: Early Coordination: US 59 Redland (CSJ: 0176-02-118) Angelina County LFK District

Hi Suzanne,

Please see attached KMZ.

Have a good weekend.
Jennifer

From: Suzanne Walsh [mailto:Suzanne.Walsh@tpwd.texas.gov]
Sent: Friday, August 10, 2018 3:32 PM
To: Jennifer Adams
Subject: RE: Early Coordination: US 59 Redland (CSJ: 0176-02-118) Angelina County LFK District

Hi Jennifer,

I have received your project and will be reviewing your early coordination request for US 59 Redland. Could you send a project schematic and/or KMZ file?

I will let you know if I have any other questions.

Thank you,
Suzanne

Suzanne Walsh, Ph.D.
Transportation Conservation Coordinator
Wildlife Division – Wildlife Habitat Assessment Program
Texas Parks and Wildlife Department
4200 Smith School Road
Austin, TX 78744
Phone: (512) 389-4579

From: WHAB_TxDOT
Sent: Friday, August 3, 2018 10:46 AM
To: Jennifer Adams <Jennifer.Adams@txdot.gov>
Cc: Suzanne Walsh <Suzanne.Walsh@tpwd.texas.gov>
Subject: RE: Early Coordination: US 59 Redland (CSJ: 0176-02-118) Angelina County LFK District

The TPWD Wildlife Habitat Assessment Program has received your request and has assigned it project ID # 40478. The Habitat Assessment Biologist who will complete your project review is copied on this email.

Thank you,

John Ney
Administrative Assistant
Texas Parks & Wildlife Department
Wildlife Diversity Program – Habitat Assessment Program
4200 Smith School Road
Austin, TX 78744
Office: (512) 389-4571

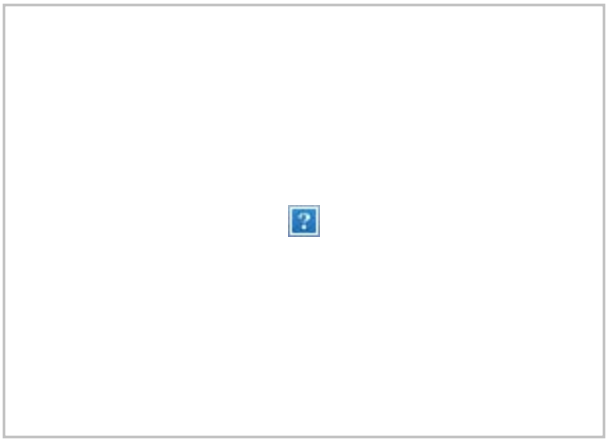
From: Jennifer Adams [mailto:Jennifer.Adams@txdot.gov]
Sent: Thursday, August 02, 2018 3:38 PM
To: WHAB_TxDOT <WHAB_TxDOT@tpwd.texas.gov>
Subject: Early Coordination: US 59 Redland (CSJ: 0176-02-118) Angelina County LFK District

Hello,

Attached is the completed Tier I Form with map, EMST Documentation, and NDD EOID results for your review.

Should you have any comments/questions, please do not hesitate to contact me.
Thanks!
Jennifer

Jennifer H. Adams
Lufkin District
936-633-4383

Faces of Drunk Driving

In 2017, alcohol-related traffic crash fatalities represented 28 percent of total traffic crash fatalities in Texas.