In coordination with Oklahoma DOT

Combined Service-Level Final Environmental Impact Statement and Record of Decision

Prepared by

Texas Department of Transportation

U.S. Department of Transportation
Federal Railroad Administration

June 2017

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June 2017

FEDERAL RAILROAD ADMINISTRATION

Texas-Oklahoma Passenger Rail Development Program
Combined Service-Level Final Environmental Impact Statement/Record of Decision

Submitted pursuant to the National Environmental Policy Act (42 U.S.C. 4321 et seq.); Federal Railroad Administration Procedures for Considering Environmental Impacts (64 FR 28545, May 26, 1999); Council on Environmental Quality's regulations implementing NEPA (40 CFR parts 1500-1508); Federal Transit Administration's Environmental Impact and Related Procedures (23 CFR Part 771).

by the:
Federal Railroad Administration (FRA)

Sponsoring Agency
Texas Department of Transportation (TxDOT)

Cooperating Agencies
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This Final Service-level Environmental Impact Statement (FEIS) considers development of an intercity passenger rail system that enhances existing passenger rail service and provides new passenger rail service between Oklahoma City and South Texas (Laredo, Corpus Christi, Brownsville), with potential extension to Monterrey, Mexico. This FEIS evaluates the potential service-level effects of an enhanced passenger rail system on air quality, greenhouse gas, climate change, water quality/resources, noise and vibration, solid waste, biological resources, wetlands, floodplains, coastal zone, energy, utilities, geologic resources, aesthetic/visual resources, land use and prime farmland, socioeconomic conditions, environmental justice, public safety and hazardous materials, recreational areas, historic and architectural resources, archaeological resources, travel demand and transportation, public health, and, Section 4(f) and Section 6(f) resources.

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1. Final Environmental Impact Statement

The Texas Department of Transportation (TxDOT), along with the Federal Railroad Administration (FRA), has prepared this service-level environmental impact statement (EIS) to evaluate intercity passenger rail service alternatives for the Texas-Oklahoma Passenger Rail Program (Program), extending from Oklahoma City to the Texas-Mexico border. The U.S. Army Corps of Engineers is a Cooperating Agency in the preparation of this EIS. Preparation of the EIS is one of two primary objectives of the Texas-Oklahoma Passenger Rail Study (Study). In addition to the EIS statement, the Study includes preparation of a service development plan for the corridor to guide further development and capital investment in passenger rail improvements identified in the Service-Level Final Environmental Impact Statement (FEIS) and Record of Decision (ROD). The Oklahoma Department of Transportation (ODOT) is a partnering state agency for the Study and the EIS. The Draft Environmental Impact Statement (DEIS) was issued on July 15, 2016, with the public comment period occurring between July 15 and August 29, 2016.

This service-level EIS addresses broad corridor issues and alternatives in accordance with the tiered environmental review guidance contained in FRA's High-Speed Intercity Passenger Rail Program. This service-level analysis is sometimes called "Tier I," but for the purpose of the EIS, the use of "service-level" will continue to be used to distinguish this analysis from potential subsequent "Tier 2" or "project-level" analyses. Subsequent project-level National Environmental Policy Act (NEPA) evaluations will analyze site-specific projects based on this service-level evaluation. The build alternatives have been developed to a level of detail appropriate for a service-level analysis: preliminary alignments represent potential corridors where rail improvements could be implemented but do not specify the precise location of the track alignment. The preliminary alignments are based on conceptual engineering that considers and avoids obvious physical or environmental constraints. These alignments have not been refined to optimize performance, reduce cost, or avoid specific properties or individual environmental resources. For alternatives selected at the service level for further evaluation, the above considerations would be assessed at the project level.

Program stakeholders, members of the public, local governments, elected officials, non-governmental organizations, and federal, state, and local agencies have been involved in preparation of the DEIS and FEIS for the Program through public meetings, scoping meetings, advisory committee and stakeholder meetings, and individual briefings.

The DEIS was issued pursuant to the Fixing America's Surface Transportation Act (FAST Act) (Public Law 114-94). In part, the FAST Act streamlined the NEPA process where possible, including the issuance of a combined FEIS/ROD, as described in Section 1311 of the FAST Act. The primary purpose of this combined Errata FEIS/ROD is to respond to substantive comments received during the public comment period and to state the decision, identify the alternatives considered in reaching the decision, and state the means to avoid, minimize, or

mitigate effects appropriate for a service-level EIS. This combined FEIS/ROD is organized as follows:

- Chapter 1: FEIS
  - Section 1.1 provides an overview of the FAST Act for the completion of a combined FEIS/ROD by errata.
  - Section 1.2 documents the selection of the NEPA Preferred Alternatives.
  - Section 1.3 provides an overview of the public outreach that has occurred since the release of the DEIS.
  - Section 1.4 contains the errata to the DEIS.
- Chapter 2: ROD
  - Section 2.1 contains the introduction.
  - Section 2.2 provides a summary of the alternatives considered.
  - Section 2.3 contains a summary of the public outreach and opportunities to comment on the DEIS.
  - Section 2.4 provides the NEPA Selected Alternatives Description and basis for decision.
  - Section 2.5 contains the measures to minimize harm.
  - Section 2.6 provides a list of the anticipated permits and approvals required for construction of the Program.
  - Section 2.7 provides the determinations and findings for 4(f) and 6(f) properties.
  - Section 2.8 contains the FRA Decision.

The FEIS/ROD also contains the following appendices:

- Appendix A: Public Hearing Distribution List
- Appendix B: Public Hearing Legal Notices – English and Spanish
- Appendix C: Public Hearing Materials
- Appendix D: Public Hearing Sign-in Sheets
- Appendix E: Public Hearing Transcripts
- Appendix F: Copy of All Comments Received During Comment Period
- Appendix G: Response to Comment Matrix
- Appendix H: Revised DEIS Sections

1.1 FAST Act Provisions

Section 1311 of the FAST Act, *Accelerated Decisionmaking in Environmental Reviews* (Section 1311 provides for the preparation of an FEIS by attaching errata sheets to the DEIS if certain conditions are met, as detailed in FEIS Section 1.1.1 below. In addition, Section 1311 requires, to the maximum extent practicable, and unless certain conditions exist (as

detailed in Section 1.1.2 below), that the lead agency develop a single document that combines the FEIS and ROD. The use of errata sheets in this combined FEIS/ROD complies with the requirements of the FAST Act.

1.1.1 Use of Errata

The use of errata sheets, in lieu of writing an entirely new FEIS that repeats a great deal of information already published in the DEIS, is appropriate when comments received on a DEIS are minor and the responses to those comments are limited to factual corrections or explanations as to why the comments do not warrant further response. Comments received on the Program required only factual corrections and minor clarifications to the DEIS. None of the comments warranted further response in the form of additional alternatives or consideration of undisclosed effects.

In accordance with Title 23 United States Code (U.S.C.) Section 139(n)(1), the errata sheets are being utilized and made available to the public to the same extent as the DEIS. Continued availability of the DEIS is also being ensured.

The DEIS is currently available to the public on the TxDOT website: (https://www.txdot.gov/inside-txdot/projects/studies/statewide/texas-oklahoma-rail.html) and at the following public locations:

- TxDOT Laredo District Office, 1817 Bob Bullock Loop, Laredo, TX 78043
- TxDOT Rail Division Office, 118 East Riverside Drive, Austin, TX 78704
- North Central Texas Council of Governments (NCTCOG), 616 Six Flags Drive, Arlington, TX 76011
- ODOT, 200 NE 21st Street, Oklahoma City, OK 73105
- FRA, 1200 New Jersey Avenue SE, Washington, D.C., 20590

The DEIS errata are included in this combined FEIS/ROD and are also available with the DEIS on the TxDOT website and at the locations noted above. The updated sections from the DEIS are included as Appendix H to this combined FEIS/ROD. The section updates provided in Appendix H are also incorporated by reference into the corresponding technical reports originally prepared in support of the DEIS.

1.1.2 Combined FEIS/ROD

Traditionally, and in accordance with the Council on Environmental Quality Regulations (40 Code of Federal Regulations [CFR] § 1506.10(b)(2)), FEIS and ROD documents are issued separately with a minimum 30-day period between the FEIS and ROD. As explained above, the FAST Act, to the maximum extent practicable, directs the lead agency to expeditiously develop a single document that consists of an FEIS and ROD unless:

- The FEIS makes substantial changes to the proposed actions that are relevant to environmental or safety concerns.
- There is a significant new circumstance or information relevant to environmental concerns and that bears on the proposed action or the impacts of the proposed action.

Additionally, the applicable requirements for both an FEIS and a ROD must be met for the issuance of a single combined FEIS/ROD document.

This combined FEIS/ROD does not include substantial changes to the proposed action in terms of environmental or safety concerns, nor are there significant new circumstances or information relevant to environmental concerns of the proposed action or its effects.

The Program has met the FAST Act Section 1311(a) and 1311(b) requirements for the issuance of a combined FEIS/ROD, including the following:

- Identification of the preferred alternatives (NEPA Preferred Alternatives), included in Section 1.2 of the FEIS.
- Summary of the public outreach efforts, comments received on the DEIS, public hearing responses, and public and agency coordination activities that have taken place since the issuance of the DEIS, included in Section 1.3 of the FEIS.

1.2 Selection of NEPA Preferred Alternatives

This section discusses the overall Program Purpose and Need (Section 1.2.1, Overall Program – Purpose and Need) and also identifies the preferred alternatives as the NEPA Preferred Alternatives, selected from those presented in the DEIS. It specifically discusses the potential transportation and environmental effects of the NEPA Preferred Alternatives as compared with the No Build Alternative (refer to Section 1.2.2 for further detail on the Preferred Alternatives). The discussions within Section 1.2.2 demonstrate why the NEPA Preferred Alternatives remain the preferred alternatives following the formal DEIS comment period.

The U.S. Environmental Protection Agency (EPA) published the Notice of Availability (NOA) for the DEIS in the *Federal Register* on Friday, July 15, 2016, thus beginning the formal 45-day public review and comment period. Distribution of the DEIS to local, regional, state, and federal agencies, interested and affected parties, and the public provided opportunity for review and comment. The review and comment period ended on August 29, 2016. TxDOT held three public hearings, on August 9, 10, and 11, 2016, where verbal and written comments could be made regarding the DEIS.

No substantive comments were received on the DEIS that would result in changes to the NEPA Preferred Alternatives. Additionally, no comments raised new circumstances or

provided new information relevant to environmental or safety concerns that would warrant a change to the recommended NEPA Preferred Alternatives.

1.2.1 Overall Program – Purpose and Need

The purpose and need statement for the Program identifies two levels of discussion:

- Overall purpose and need for the entire 850-mile Program corridor from Oklahoma City to south Texas (Figure FEIS-1)
- Purpose and need specific to each of the three geographic sections that compose the Program corridor:
  - Northern Section: Oklahoma City, Oklahoma, to Dallas and Fort Worth, Texas
  - Central Section: Dallas and Fort Worth to San Antonio
  - Southern Section: San Antonio to South Texas

1.2.1.1 Purpose

The purpose of the overall Program is to enhance intercity mobility by providing enhanced passenger rail service as a transportation alternative that is competitive with automobile, bus, and/or air travel. The purposes of the Program in the three geographic sections are as follows:

- Northern Section: To provide efficient and reliable intercity passenger rail service along the Northern Section of the Program corridor that is competitive with other travel options
- Central Section: To provide efficient and reliable intercity passenger rail service along the corridor from Dallas and Fort Worth to San Antonio that is competitive with other travel options
- Southern Section: To provide efficient and reliable intercity passenger rail service from San Antonio to south Texas that is competitive with other mode options

The specific objectives for the overall Program and the three geographic sections are detailed in Chapter 1 of the DEIS.

1.2.1.2 Need

The need for the overall Program arises from the inadequacies of existing passenger rail service and other modes of transportation to meet current and future mobility needs in the Program corridor. The need specific to the three geographic sections are as follows:

- Northern Section: Population and economic growth in the Northern Section are projected to increase intercity passenger travel demand beyond that which can be accommodated by the existing highway, intercity passenger rail, and air travel

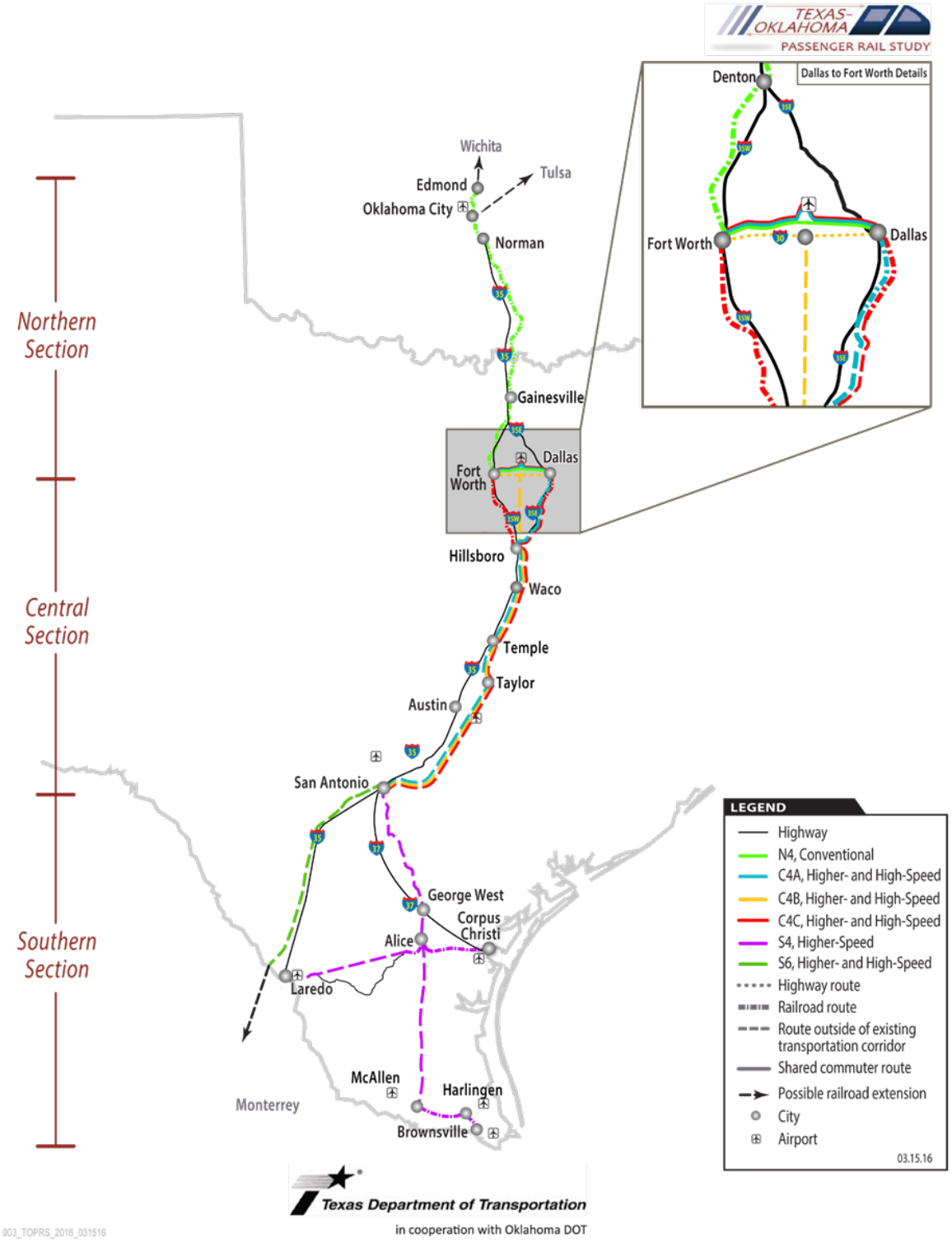


Figure FEIS-1: Texas-Oklahoma Passenger Rail Program Corridor

systems in the Northern Section. Specific needs for the Northern Section are the following:

  - Increasing population density and changes in demographic profile require alternatives in regional mobility.
  - Existing constrained passenger rail service that competes with freight for rail line capacity is affected by delays and makes it difficult to attract business or short-travel riders.
  - Inefficient connections with other modes of travel reduce the attractiveness of passenger rail as an intercity travel alternative.
  - Local governments require regional support to improve interregional connectivity.

- Central Section: Multiple transportation, land use, socioeconomic, and environmental considerations drive the need for the Program in the Central Section. Specific needs for the Central Section are the following:
  - Changing transportation demand of an increasing transit-dependent population requires an alternative mode.
  - Inefficient and infrequent rail service limits ridership.
  - Increasing congestion and unreliable travel times on both the existing highway and rail services require an alternative interregional service.
  - Poor and declining air quality requires more sustainable modes of travel.
- Southern Section: Population and economic growth in the Southern Section will increase intercity passenger travel demand beyond that which can be accommodated by the existing highway and air travel systems. Air service options available in the Southern Section are limited. Specific needs for the Southern Section are the following:
  - Regional and cross-border travel is constrained by uncompetitive trip times, poor reliability, and low levels of passenger convenience.
  - Poor and declining air quality requires more sustainable modes of travel.

The need for the overall Program and the three geographic sections is detailed in Chapter 1 of the DEIS.

1.2.2 Comparison of Transportation and Environmental Consequences

This section discusses the potential transportation and environmental effects of the NEPA Preferred Alternatives as compared with the No Build Alternative. The effects of the NEPA Preferred Alternatives on transportation and the environment would differ substantially from the No Build Alternative.

This service-level analysis only evaluates a preliminary alignment to represent each alternative, based on conceptual engineering that considered and avoided obvious physical or environmental constraints. The service-level analysis generalized effects for a large area within which the Project Area may occur and reports both the potentially adverse and beneficial effects without knowing the exact footprint of the alignment. These alignments are not refined to optimize performance, reduce cost, or avoid specific properties or individual environmental resources, or for any other such considerations. For alternatives recommended at the service level for further evaluation, the above considerations will be assessed at the project level. The project-level analysis will determine specific project impacts while the service-level analysis evaluates and describes the general effects by alternative. The service-level analysis includes general best management practices (BMPs), design features, and mitigation strategies that address effects on a broad, service-level scale. The subsequent project-level analysis would include, but not be limited to, specific and targeted BMPs, design features, and mitigation strategies.

A broad corridor of study with a width of 500 feet has been identified along each route (EIS Study Area). Unless described differently in the DEIS resource sections, the EIS Study Area is the area in which potentially affected environmental resources in proximity to each alternative are identified. The EIS Study Area provides an envelope that encompasses the construction footprint of the alternatives and the areas in which impacts from each resource could occur. It also includes infrastructure that may be needed to support the Program, such as roadway shifts, grade separations, construction activities, and associated features that are not a part of service-level design, such as stations and parking, traction-power substations, power lines, and maintenance-of-way facilities, as described in the DEIS Chapter 2, *Alternatives*. Data for potentially affected counties were obtained from TxDOT. The area for which the data were collected is identified as the “Study Vicinity.” Typically, county-wide data were collected for counties partially or completely within the EIS Study Area.

Table FEIS-1, presented at the end of this section, summarizes the results of the analysis of the No Build Alternative and the NEPA Preferred Alternatives. The table includes text updates/revisions required for DEIS Tables ES-3, ES-4, and ES-5, Summary of Resource Effects in the Northern, Central, and Southern Sections, respectively, as a result of responding to agency comments. These revisions are discussed in Section 1.4 DEIS Errata Sheets.

1.2.2.1 No Build Alternative

The No Build Alternative would not fulfill the Program’s purpose and need but is carried forward as a baseline alternative against which the build alternatives are compared. The No Build Alternative would consist of the existing transportation network, including roadway, passenger rail, and air travel in the Study Vicinity, as well as maintenance of and planned improvements to these systems, as identified using transportation plans of the regional

metropolitan planning organizations within the Study Vicinity. The transportation improvements included in the No Build Alternative are listed in Chapter 2 of the DEIS.

1.2.2.2 NEPA Preferred Alternative: Northern Section Alternative N4A Conventional Rail (Oklahoma City to Dallas and Fort Worth)

Alternative N4A Conventional (N4A CONV) assumes diesel-locomotive hauled equipment running three to six daily round trips. Two or three of the round trips would operate on an accelerated schedule, making roughly seven stops, with remaining "local" trains making as many as 12 stops.

Compared with the No Build Alternative evaluated in the DEIS, the N4A CONV Alternative would achieve the following:

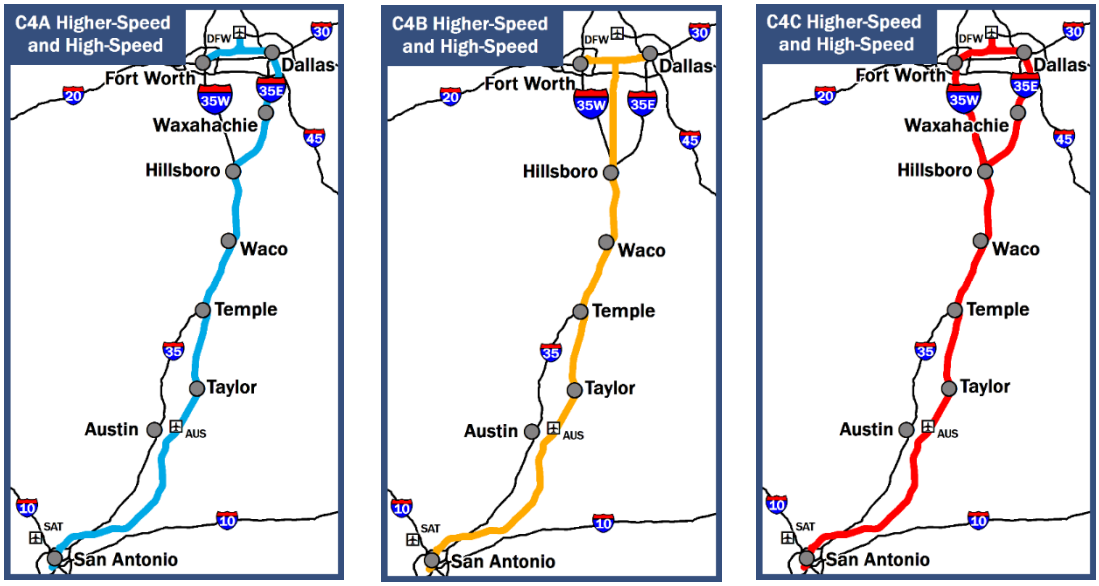
- Increase the number of daily round trips along the Amtrak Heartland Flyer route (Oklahoma City to Fort Worth) from one daily round trip to three to six daily round trips, with two or three of the round trips operating on an accelerated schedule making roughly seven stops, with the remaining "local" trains making as many as 12 stops.
- Extend from Fort Worth to Dallas along the existing Trinity Railway Express (TRE) route without requiring a transfer and provide improvements to existing station facilities and new train equipment with more onboard amenities, including business class available for a premium price.
- Have similar environmental effects during operation as the No Build Alternative, except it would have a beneficial effect on passenger transportation because of the proposed incremental system and service improvements. Temporary effects during construction would be slightly more than the No Build Alternative.
- Provide connectivity with current and planned intercity passenger rail and air passenger services with planned connections to the major airports in the Study Area.

1.2.2.3 NEPA Preferred Alternatives: Central Section Alternatives C4A High-Speed Rail, C4B High-Speed Rail, and C4C High-Speed Rail (Dallas and Fort Worth to San Antonio)

Alternatives C4A High-Speed Rail (C4A HSR), C4B High-Speed Rail (C4B HSR), and C4C High-Speed Rail (C4C HSR) assume electric-powered, high-speed rail service running 12 to 20 daily round trips. Express trains would likely make six stops, while C4A HSR and C4C HSR local trains would make up to nine stops, and C4B HSR local trains would make up to eight stops.

Compared with the No Build Alternative evaluated in the DEIS, the C4A HSR, C4B HSR, and C4C HSR alternatives would achieve the following:

- Increase the number of daily round trips along the Amtrak Texas Eagle route (Fort Worth to San Antonio) from one round trip per day to up to 20 round trips per day.
- Provide much faster service between Dallas and Fort Worth and San Antonio, reducing the average rail trip from approximately 8 hours to approximately 2 hours.
- Provide improvements to existing station facilities as well as new train equipment.
- Provide substantial benefits to the Study Area in both air quality and energy due to use of electric-powered train cars.
- Reduce congestion on Interstate Highway (IH)-35 by diverting ridership from highway to train, which would also help improve air quality by reducing emissions from highway traffic.



1.2.2.4 NEPA Preferred Alternative: Southern Section Alternative S4 Higher-Speed Rail (San Antonio to South Texas)

Alternative S4 Higher-Speed Rail (S4 HrSR) assumes new diesel-locomotive hauled equipment running four to six daily round trips. Depending on corridor demand model forecasts, the primary service may be designated as Laredo-Alice-San Antonio and Corpus Christie-Alice-San Antonio, with a connecting feeder from Brownsville, Harlingen, and McAllen.

Compared with the No Build Alternative evaluated in the DEIS, the S4 Alternative would achieve the following:

- Provide public benefits that include meeting more local transportation needs to serve South Texas than any other alternative.

- Introduce a reliable linkage between the industrial development areas in south Texas and the other economic centers to meet increasing traveler demand.
- Provide a more affordable, efficient, and safe intercity travel alternative to air travel.
- Provide a more sustainable travel option to support air quality improvements needed in the area.

1.2.2.5 NEPA Preferred Alternatives: Southern Section Alternatives S6 Higher-Speed Rail and S6 High-Speed Rail (San Antonio to Laredo, with potential extension to Monterrey, Mexico)

Alternative S6 Higher-Speed Rail (S6 HrSR) assumes new diesel-locomotive hauled equipment running four to six daily round trips between San Antonio and Laredo, which would be the only U.S. stops for this alternative. If an extension from Laredo to Monterrey were added, the frequency of trips to Monterrey is assumed to be the same as those from San Antonio to Laredo.

Alternative S6 High-Speed Rail (SR HSR) assumes electric-powered, high-speed service running eight to 12 daily round trips between San Antonio and Laredo. If an extension from Laredo to Monterrey were added, the frequency of trips to Monterrey is assumed to be the same as those from San Antonio to Laredo.

Compared with the No Build Alternative evaluated in the DEIS, the S6 Alternatives would achieve the following:

- Provide public benefits that include meeting more local transportation needs to serve Laredo and Monterrey, Mexico.
- Introduce a reliable linkage between Laredo and San Antonio to meet increasing traveler demand.
- Provide a more affordable, efficient, and safe intercity travel alternative to air travel.
- Provide more secure cross-border travel between the US and Mexico, with the extension to Monterrey, Mexico.

1.2.3 Recommendation

The DEIS showed that the NEPA Preferred Alternatives for the three Project corridor sections (Northern, Central, and Southern) and corresponding speed conventions would achieve the Purpose and Need, perform effectively in terms of Program goals and objectives within the

respective geographic sections, and represent the least environmentally damaging practicable alternatives compared with the No Build Alternative and other build alternatives considered and evaluated. Preferred alternatives are recommended for each geographic section separately because the Program does not analyze alternatives for the entire Program corridor between Oklahoma City and Laredo/Brownsville, but rather between the endpoint cities of each geographic section (Northern, Central, and Southern). In addition, more than one alternative in the Central and Southern Sections could be built in the future to provide different service types or serve different cities. Recommendation of these Preferred Alternatives does not preclude connectivity between geographic sections of the Program, but it does not assume connectivity either. Details about how preferred alternatives might connect would be analyzed during project-level analysis after completion of this service-level EIS.

As discussed above, comments were received during the public comment period, which raised points of information, clarification, or correction. However, comments received during the public comment period on these information points did not result in new information or introduce any new discipline based analyses across technical disciplines that were not previously conducted or that would otherwise modify the selection of the NEPA Preferred Alternatives.

Table FEIS-1: Summary of No Build Alternative and NEPA Preferred Alternatives Resource Effects

Resources	Alternatives							
	No Build Alternative	N4A CONV	C4A HSR	C4B HSR	C4C HSR	S4 HrSR	S6 HrSR	S6 HSR
Air Quality	No Effect	Based on limited construction activities and emissions, along with reduced emissions during operation: Negligible (adverse) short-term (construction) and negligible (benefit) long-term regional (operation) effects.	Based on short-term construction emissions and based on operational pollutant emission reductions: Substantial (adverse) short-term (construction) effects and substantial (benefit) long-term regional (operation) effects.	Based on lower short-term construction emissions and based on operational pollutant emission reductions: Moderate (adverse) short-term (construction) effects and substantial (benefit) long-term regional (operation) effects.	Based on short-term construction emissions and based on operational pollutant emission reductions: Substantial (adverse) short-term (construction) effects and substantial (benefit) long-term regional (operation) effects.	Based on construction and operation of new infrastructure: Substantial (adverse) short-term (construction) effects and substantial (adverse) long-term regional (operation) effects.	Based on a shorter alignment and a shift in mode choice and lower pollutant emissions: Moderate (adverse) short-term (construction) and moderate (adverse) long-term regional (operation) effects.	Based on increased construction activities and use of electrified train engines: Substantial (adverse) short-term (construction) effects and negligible (benefit) long-term regional (operation) effects.
Air Quality – GHG and Climate Change[a]	No Effect	Beneficial effect (5% reduction)	Beneficial effect (20% reduction)	Beneficial effect (18% reduction)	Beneficial effect (15% reduction)	Negative effect (2% increase)	Negative effect (3% increase)	Negative effect (16% increase)
Water Quality	No Effect	Surface waters: Negligible effects on waterbodies crossed by the EIS Study Area based on the use of existing railway infrastructure and corridors, and through project design and implementation of BMPs. Runoff: Negligible effect due to low amount of impervious surfaces and implementation of structural stormwater management practices and construction BMPs. Erosion: Moderate effect due to the acreage of erosive soils crossed,	Surface waters: More waterbodies than C4B HSR, fewer than C4C HSR (700 features; 24,187 linear feet of listed Section 303(d) impaired waters). Moderate effects due to the acreage and linear feet crossed. Runoff: Negligible effect due to low amount of impervious surfaces and implementation of structural stormwater management practices and construction BMPs.	Surface waters: Fewer waterbodies than C4A HSR and C4B HSR (650 features; 18,870 linear feet of listed Section 303(d) impaired waters). Moderate effects due to the acreage and linear feet crossed. Runoff: Negligible effect due to low amount of impervious surfaces and implementation of structural stormwater management practices and construction BMPs.	Surface waters: More waterbodies than C4A HSR and C4B HSR (850 features; 23,084 linear feet of listed Section 303(d) impaired waters). Moderate effects due to the acreage and linear feet crossed. Runoff: Negligible effect due to low amount of impervious surfaces and implementation of structural stormwater management practices and construction BMPs.	Surface waters: More waterbodies than S6 HrSR and S6 HSR (443 features; 13,928 linear feet of listed Section 303(d) impaired waters). Moderate effects due to the acreage and linear feet crossed. Runoff: Negligible due to amount of impervious surfaces and implementation of structural stormwater management practices and construction BMPs. Erosion: More erosive	Surface waters: Fewer waterbodies than S4 HrSR (255 features; 2,921 linear feet of listed Section 303(d) impaired waters). Moderate effects due to the acreage and linear feet crossed. Runoff: Negligible due to amount of impervious surfaces and implementation of structural stormwater management practices and construction BMPs. Erosion: Less erosive soils crossed (4 crossed) but more acreage (691 acres) than S4 HrSR. Negligible effect due to the acreage of erosive soils crossed, which would be minimized with use of construction BMPs. Groundwater: Less aquifers crossed (12,450 acres) than S4 HrSR. Negligible effect as a result of no Sole Source aquifer recharge area crossings, acreage of unconfined aquifer

Resources	Alternatives							
	No Build Alternative	N4A CONV	C4A HSR	C4B HSR	C4C HSR	S4 HrSR	S6 HrSR	S6 HSR
		which would be minimized with use of construction BMPs. Groundwater: Negligible effect as a result of no Sole Source Aquifer recharge area crossings, low acreage of unconfined aquifer crossings, and implementation of BMPs.	Erosion: Less erosive soils crossed than C4B HSR and C4C HSR (101 crossed). More acreage than C4B HSR and less than C4C HSR (1,424 acres). Moderate effect due to the acreage of erosive soils crossed, which would be minimized with use of construction BMPs. Groundwater: More aquifers crossed than C4B HSR and less than C4C HSR (25,775 acres crossed). Negligible effect as a result of no Sole Source aquifer recharge area crossings, low acreage of unconfined aquifer crossings, and implementation of stormwater treatment measures and BMPs.	Erosion: More erosive soils crossed than C4A HSR and less crossed than C4C HSR (116 crossed). Less acreage than C4A HSR and C4C HSR (1,395 acres). Moderate effect due to the acreage of erosive soils crossed, which would be minimized with use of construction BMPs. Groundwater: Less aquifers crossed than C4A HSR and C4C HSR (23,160 acres). Negligible effect as a result of no Sole Source aquifer recharge area crossings, low acreage of unconfined aquifer crossings, and implementation of stormwater treatment measures and BMPs.	Erosion: More erosive soils crossed (123 crossed) and more acreage (1,706 acres) than C4A HSR and C4B HSR. Moderate effect due to the acreage of erosive soils crossed, which would be minimized with use of construction BMPs. Groundwater: More aquifers crossed than C4A HSR and C4B HSR (31,900 acres). Negligible effect as a result of no Sole Source aquifer recharge area crossings, low acreage of unconfined aquifer crossings, and implementation of stormwater treatment measures and BMPs.	soils crossed (22 crossed) but less acreage (678 acres) than S6 HrSR and HSR. Negligible effect due to the acreage of erosive soils crossed, which would be minimized with use of construction BMPs. Groundwater: More aquifers crossed (27,610 acres) than S6 HrSR and HSR. Negligible effect as a result of no Sole Source aquifer recharge area crossings, acreage of unconfined aquifer crossings, and implementation of stormwater treatment measures and BMPs.	crossings. and implementation of stormwater treatment measures and BMPs.	
Noise and Vibration	No effect	Noise- and vibration-sensitive land uses are present in the EIS Study Area and would be subject to moderate effects.	Higher amount of noise- and vibration-sensitive land uses than C4B HSR, but lower amount than C4C HSR. Moderate effects.	Lowest amount of noise- and vibration-sensitive land uses as compared to C4A HSR and C4C HSR. Negligible effects.	Highest amount of noise- and vibration-sensitive land uses as compared to C4A HSR and C4B HSR. Moderate effects.	Highest amount of noise- and vibration-sensitive land uses as compared to S6 HrSR and S6 HSR. Moderate effects.	Lowest amount of noise- and vibration-sensitive land uses as compared to S4 HrSR. S6 HSR affects more receivers than S6 HrSR; however, both would have negligible effects.	

Resources	Alternatives							
	No Build Alternative	N4A CONV	C4A HSR	C4B HSR	C4C HSR	S4 HrSR	S6 HrSR	S6 HSR
		Noise[b] Category 2 receivers: 15,395 acres Category 3 receivers: 245 facilities *Vibration* Category 1 receivers: 1 land use Category 2 receivers: 11,247 acres Category 3 receivers: 24 facilities	*Noise*[b] Category 2 receivers: 19,466 acres Category 3 receivers: 227 facilities *Vibration* Category 2 receivers: 11,919 acres Category 3 receivers: 39 facilities	*Noise*[b] Category 2 receivers: 15,549 acres Category 3 receivers: 179 facilities *Vibration* Category 2 receivers: 9,566 acres Category 3 receivers: 35 facilities	*Noise*[b] Category 2 receivers: 22,799 acres Category 3 receivers: 256 facilities *Vibration* Category 2 receivers: 12,387 acres Category 3 receivers: 44 facilities	*Noise*[b]: Category 2 receivers: 8,753 acres Category 3 receivers: 62 facilities *Vibration* Category 2 receivers: 2,181 acres Category 3 receivers: 17 facilities	*Noise*[b]: Category 2 receivers: 687 acres Category 3 receivers: 1 facility *Vibration* Category 2 receivers: 172 acres Category 3 receivers: 0 facilities	*Noise*[b]: Category 2 receivers: 1,586 acres Category 3 receivers: 3 facilities *Vibration* Category 2 receivers: 240 acres Category 3 receivers: 0 facilities
Solid Waste Disposal	No Effect	Negligible effects to landfills.	Landfills present in the counties in the EIS Study Area affected by the alternatives would experience negligible effects.					
Natural Ecological Systems and Wildlife	No Effect	54% non-developed land covers. Negligible effects during construction and operation. Wildlife corridors and assemblages outside of proposed route. Negligible effects during construction and moderate effects during operation. 10% of EIS Study Area composed of higher ecological value land coverage. Alignment would not likely be fenced, making wildlife movement vulnerable to increased risk for strikes from additional rail traffic.	62% non-developed land covers. Substantial effects during construction and moderate effects during operation. Wildlife corridors and assemblages potentially associated with proposed route. Sensitive plant communities. Substantial effects during construction and moderate effects during operation. 18% of EIS Study Area composed of higher ecological value land	64% non-developed land covers. Substantial effects during construction and moderate effects during operation. Wildlife corridors and assemblages potentially associated with proposed route. Sensitive plant communities. Substantial effects during construction and moderate effects during operation. 18% of EIS Study Area composed of higher ecological value land	62% non-developed land covers. Substantial effects during construction and moderate effects during operation. Wildlife corridors and assemblages potentially associated with proposed route. Sensitive plant communities. Substantial effects during construction and moderate effects during operation. 15% of EIS Study Area composed of higher ecological value land	68% non-developed land covers. Moderate effects during construction and operation. No reported wildlife corridors or assemblages. Negligible effects during construction and operation. 15% of EIS Study Area composed of higher ecological value land coverage. Substantial effects during construction and moderate effects during operation.	92% non-developed land covers. Substantial effects during construction and moderate effects during operation. No reported wildlife corridors or assemblages or sensitive plant communities. Negligible to moderate effects. There is higher potential for effects from HSR than HrSR because HSR noise and vibration would travel farther than that generated by HrSR. 21% of EIS Study Area composed of higher ecological value land coverage. Substantial effects during construction and operation.	

Resources	Alternatives							
	No Build Alternative	N4A CONV	C4A HSR	C4B HSR	C4C HSR	S4 HrSR	S6 HrSR	S6 HSR
		Negligible effects during construction and operation.	coverage. Substantial effects during construction and moderate effects during operation.	coverage. Substantial effects during construction and moderate effects during operation.	coverage. Substantial effects during construction and moderate effects during operation.			
Wetlands	No Effect	Wetlands and other waterbodies are present in the EIS Study Area and would experience negligible effects. Waterbodies: 537 waterbodies; 103 acres; 317,365 linear feet. Wetlands: 271 wetlands; 363 acres.	More waterbodies and wetlands than C4B HSR, but fewer than C4C HSR. Moderate effects. Waterbodies: 700 waterbodies; 153 acres; 316,909 linear feet. Wetlands: 349 wetlands; 312 acres.	Fewest waterbodies and wetlands compared to C4A HSR and C4C HSR. Moderate effects. Waterbodies: 650 waterbodies; 99 acres; 293,669 linear feet. Wetlands: 309 wetlands; 181 acres.	Most waterbodies and wetlands compared to C4A HSR and C4B HSR. Moderate effects. Waterbodies: 850 waterbodies; 164 acres; 400,363 linear feet. Wetlands: 391 wetlands; 345 acres.	Most waterbodies and wetlands compared to S6 HrSR and S6 HSR. Moderate effects. Waterbodies: 443 waterbodies; 74 acres; 247,448 linear feet. Wetlands: 189 wetlands; 142 acres.	Fewest water bodies and wetlands compared to S4 HrSR. Moderate effects. Waterbodies: 255 waterbodies; 29 acres; 120,488 linear feet. Wetlands: 83 wetlands; 57 acres.	
Threatened and Endangered Species	No Effect	Sensitive plant species: Potential occurrences of sensitive plant species. Moderate effects during construction and operation. Sensitive wildlife species: Federally listed and other sensitive wildlife species. Moderate effects during construction and operation. Habitat: Potential occurrences of habitat corresponding to sensitive plants and wildlife	Sensitive plant species: Potential occurrences of sensitive plant species. Moderate effects during construction and operation. Sensitive wildlife species: Federally listed and other sensitive wildlife species. Substantial effect during construction and moderate effect during operation. Habitat: Potential occurrences of habitat corresponding to	Sensitive plant species: Potential occurrences of sensitive plant species. Moderate effects during construction and operation. Sensitive wildlife species: Federally listed and other sensitive wildlife species. Substantial effect during construction and moderate effect during operation. Habitat: Potential occurrences of habitat	Sensitive plant species: Potential occurrences of sensitive plant species. Moderate effects during construction and operation. Sensitive wildlife species: Federally listed and other sensitive wildlife species. Substantial effect during construction and moderate effect during operation. Habitat: Potential occurrences of habitat corresponding to	Sensitive plant species: Federally listed and other sensitive plant species. Substantial effects during construction and moderate effects during operation. Sensitive wildlife species: Federally listed and other sensitive wildlife species. Substantial effects during construction and moderate effects	Sensitive plant species: Potential occurrences of sensitive plant species. Moderate effects during construction and operation. Sensitive wildlife species. Federally listed and other sensitive wildlife species. Moderate effects during construction and operation. Potential occurrences of habitat corresponding to sensitive plants and wildlife species. Moderate effects during construction and operation.	

Resources	Alternatives							
	No Build Alternative	N4A CONV	C4A HSR	C4B HSR	C4C HSR	S4 HrSR	S6 HrSR	S6 HSR
		species. Moderate effects during construction and operation.	sensitive plants and wildlife species. Moderate effects during construction and operation.	corresponding to sensitive plants and wildlife species. Moderate effects during construction and operation.	sensitive plants and wildlife species. Moderate effects during construction and operation.	during operation. Habitat: Potential occurrences of habitat corresponding to sensitive plants and wildlife species. Moderate effects during construction and operation.		
Flood Hazards and Floodplain Management	No Effect	Floodplains and floodways are present in the EIS Study Area and would experience negligible effects. Floodplains: 2,005 acres Floodways: 410 acres	More floodplains and floodways than C4B HSR, but fewer than C4C HSR. Negligible effects. Floodplains: 2,212 acres Floodways: 815 acres	Fewest floodplains and floodways. Negligible effects. Floodplains: 2,193 acres Floodways: 582 acres	Most floodplains and floodways. Negligible effects. Floodplains: 2,691 acres Floodways: 961 acres	Cannot compare against S6 HrSR and S6 HSR because of data constraints. Negligible effects. Floodplains: 3,011 acres Floodways: 4 acres	National Flood Hazard Layer data missing for much of EIS Study Area. Negligible effects (based upon comparison of floodplain and floodway acreage). Floodplains: 453 acres, based on limited data Floodways: 12 acres, based on limited data	
Coastal Zone Management	No Effect	Not applicable because there are no coastal zone management areas.				10 miles of alignment in Nueces County Coastal Management Zone. Negligible effects.	Not applicable because there are no coastal zone management areas.	
Energy	No Effect	Negligible adverse effects during construction and negligible beneficial effects during operation. Annual energy savings: 114,000 MBTUs	Substantial adverse effects during construction, and substantial beneficial effects during operation. Annual energy savings: 1,812,892 MBTUs	Substantial adverse effects during construction, and substantial beneficial effects during operation. Annual energy savings: 2,264,999 MBTUs	Substantial adverse effects during construction, and substantial beneficial effects during operation. Annual energy savings: 1,413,391 MBTUs	Moderate adverse effects during construction and moderate beneficial effects during operation. Annual energy savings: 229,024 MBTUs	Moderate adverse effects during construction and moderate beneficial effects during operation. Annual energy savings: 295,143 MBTUs	Substantial adverse effects during construction and substantial beneficial effects during operation. Annual energy savings: 398,507 MBTUs
Utilities[c]	No Effect	361 utility crossings. Negligible effects.	424 utility crossings. Substantial effects	315 utility crossings. Substantial effects.	744 utility crossings. Substantial effects.	847 utility crossings. Moderate effects.	84 utility crossings. Moderate effects.	84 utility crossings. Moderate effects.

Resources	Alternatives							
	No Build Alternative	N4A CONV	C4A HSR	C4B HSR	C4C HSR	S4 HrSR	S6 HrSR	S6 HSR
Geologic Resources[d]	No Effect	Geologic risks could be avoided or minimized by meeting building standards. Moderate effects from geologic hazards. No change in access to, or reduction of, high-value minerals. Negligible effects on mineral resources.	Risks associated with geologic hazards could be avoided or minimized by meeting building standards. Moderate effects from geologic hazards. None of the alternatives would affect access or availability of high-value minerals. Negligible effects on mineral resources.					
Aesthetics and Visual Quality	No Effect	49 miles of the alignment near sensitive viewers. 46 miles would have negligible effects, 1 mile, would have moderate effects, and 2 miles would have substantial effects. The overall effect would be negligible.	47 miles of the alignment near sensitive viewers. 0 miles would have negligible effects, 36 miles would have moderate effects, and 11 miles would have substantial effects. Overall, the effect of C4A HSR would be substantial.	49 miles of the alignment near sensitive viewers. 0 miles would have negligible effects, 36 miles would have moderate effects, and 13 miles would have substantial effects. Overall, the effect of C4B HSR would be substantial.	62 miles of the alignment near sensitive viewers. 0 miles would have negligible effects, 51 miles would have moderate effects, and 11 miles would have substantial effects. Overall, the effect of C4C HSR would be substantial.	50 miles of the alignment near sensitive viewers. 36 miles would have negligible effects, 6 miles would have moderate effects, and 8 miles would have substantial effects. Overall, the effect of S4 HrSR would be moderate.	18 miles of the alignment near sensitive viewers. 0 miles would have negligible effects, 16 miles would have moderate effects, and 2 miles would have substantial effects. Overall, the effect of S6 HrSR would be moderate.	18 miles of the alignment near sensitive viewers. S6 HSR would affect more sensitive viewers than S6 HrSR. 0 miles would have negligible effects, 0 miles would have moderate effects, and 18 miles would have substantial effects. Overall, the effect of S6 HSR would be substantial.
Land Use and Prime Farmlands	No Effect	Land use: High land use compatibility. Negligible effects. Prime Farmland: 6,140 acres of prime farmland. Low potential prime farmland conversion and	Land use compatibility: Medium land use compatibility. Moderate effects. Prime farmland: 10,440 acres. Moderate effects.	Land use compatibility: Medium land use compatibility. Moderate effects. Prime farmland: 10,440 acres. Moderate effects.	Land use Compatibility: Low land use compatibility. Moderate effects. Prime farmland: 10,217 acres. Substantial effects.	Land use Compatibility: Low land use compatibility. Moderate effects. Prime farmland: 10,217 acres. Substantial effects.	Land use Compatibility: Medium land use compatibility. Substantial effects. Prime farmland: 12,435 acres. Substantial effects.	

Resources	Alternatives							
	No Build Alternative	N4A CONV	C4A HSR	C4B HSR	C4C HSR	S4 HrSR	S6 HrSR	S6 HSR
		bisection. Negligible effects.						
Environmental Justice and Socioeconomics	No Effect	Socioeconomics: Negligible effects. Environmental Justice: Negligible effects.	Environmental Justice: Moderate effects. Socioeconomics: Moderate effects.			Environmental Justice: Substantial effects. Socioeconomics: Moderate effects.		
Public Health	No Effect	Negligible (adverse) effects relating to air quality during construction. Negligible (benefit) long-term effects relating to air quality during operation. Negligible effects relating to groundwater and hazardous materials.	Moderate (adverse) effects during construction related to air quality. Negligible (benefit) long-term effects relating to air quality during operation. Negligible effects relating to groundwater and hazardous materials.			Moderate (adverse) effects during construction related to air quality. Moderate (adverse) long-term regional effects during operation associated with diesel trains and vehicles idling near high concentrations of sensitive populations. Negligible effects relating to groundwater and hazardous materials.	Moderate (adverse) effects during construction related to air quality. Negligible (adverse) long-term regional effects during operation. Negligible effects relating to groundwater and hazardous materials.	Moderate (adverse) effects during construction related to air quality. Negligible (benefit) long-term regional effects during operation. Negligible effects relating to groundwater and hazardous materials.
Public Safety and Hazardous Materials	No Effect	Public Safety: Improved crossing safety over No Build Alternative but continued collision risk associated with crossings. Negligible effects. Hazardous Materials: 8 sites. Negligible effects.	Public Safety: Improved crossing safety over No Build Alternative. No at-grade crossings and no associated collision risk. Negligible effects. Hazardous Materials: 9 sites. Moderate effects.			Public Safety: Improved crossing safety over No Build Alternative. No at-grade crossings and no associated collision risk. Negligible effects. Hazardous Materials: 8 sites. Moderate effects.	Public Safety: Improved crossing safety over No Build Alternative. No at-grade crossings and no associated collision risk. Negligible effects. Hazardous Materials: 12 sites. Moderate effects.	Public Safety: Improved crossing safety over No Build Alternative. No at-grade crossings and no collision risk. Negligible effects. Hazardous Materials: 0 sites. Negligible effects.

Resources	Alternatives							
	No Build Alternative	N4A CONV	C4A HSR	C4B HSR	C4C HSR	S4 HrSR	S6 HrSR	S6 HSR
Recreational Areas and Opportunities[e]	No Effect	Negligible effects from construction activities and property acquisition. 56 recreational resources.	More recreational resources than C4B HSR, but fewer than C4C HSR. Substantial effects from construction activities and property acquisition. 57 recreational resources: 28 in urban, 17 in suburban, 12 in rural areas.	Fewest recreational resources compared to C4A HSR and C4C HSR. Substantial effects from construction activities and property acquisition. 51 recreational resources: 28 in urban, 15 in suburban, 8 in rural areas.	Most recreational resources compared to C4A HSR and C4B HSR. Substantial effects from construction activities and property acquisition. 62 recreational resources: 33 in urban, 17 in suburban, 12 in rural areas.	Highest number of recreational resources compared to S6 HrSR and S6 HSR but effects reduced because of greater use of existing rail right-of-way. Moderate effects from construction activity and property acquisition. 54 recreational resources: 38 in urban, 4 in suburban, 12 in rural areas.	Fewest number of recreational resources compared to S4 HrSR. Negligible effects from construction activity and property acquisition. 3 recreational resources: 1 in urban, 0 in suburban, 2 in rural areas.	
Historic Resources[e]	No Effect	Moderate effects from acquisition or rehabilitation, restoration, or expansion of existing railroad-related historic resources. 35 known NRHP-listed, NRHP-eligible, or potentially NRHP-eligible historic resources.	More known NRHP-listed, NRHP-eligible, or potentially NRHP-eligible historic resources than C4B HSR, but fewer than C4C HSR. Substantial effects from acquisition or rehabilitation, restoration, or expansion of existing railroad-related historic resources. 45 known NRHP-listed, NRHP-eligible, or potentially NRHP-eligible historic resources.	Fewest known NRHP-listed, NRHP-eligible, or potentially NRHP-eligible historic resources compared to C4A HSR and C4C HSR. Substantial effects from acquisition or rehabilitation, restoration, or expansion of existing railroad-related historic resources. 38 known NRHP-listed, NRHP-eligible, or potentially NRHP-eligible historic resources.	Most known NRHP-listed, NRHP-eligible, or potentially NRHP-eligible historic resources compared to C4A HSR and C4B HSR. Substantial effects from acquisition or rehabilitation, restoration, or expansion of existing railroad-related historic resources. 52 known NRHP-listed, NRHP-eligible, or potentially NRHP-eligible historic resources.	Most known NRHP-listed, NRHP-eligible, or potentially NRHP-eligible historic resources compared to S6 HrSR and S6 HSR. Moderate effects from acquisition or rehabilitation, restoration, or expansion of existing railroad-related historic resources. 36 known NRHP-listed, NRHP-eligible, or potentially NRHP-eligible historic resources.	No known NRHP-listed, NRHP-eligible, or potentially NRHP-eligible historic resources. Negligible effects.	

Resources	Alternatives							
	No Build Alternative	N4A CONV	C4A HSR	C4B HSR	C4C HSR	S4 HrSR	S6 HrSR	S6 HSR
Archaeological Resources[e]	No Effect	Moderate effects from demolition or disturbance of resources. 1 NRHP-eligible site and 14 undetermined eligible archaeological sites.	More identified sites than C4B HSR, but fewer than C4C HSR. Substantial effects from disturbance or demolition of resources. 1 NRHP-eligible site and 25 undetermined eligible archaeological sites.	Fewest identified sites compared to C4A HSR and C4C HSR. Substantial effects from disturbance or demolition of resources. 2 NRHP-eligible sites and 18 undetermined eligible archaeological sites.	Most identified sites compared to C4A HSR and C4B HSR. Substantial effects from disturbance or demolition of resources. 1 NRHP-eligible site and 26 undetermined eligible archaeological sites.	Most identified sites compared to S6 HrSR and S6 HSR. Moderate effects. 1 NRHP-eligible site and 20 undetermined eligible archaeological sites.	Moderate effects. 0 NRHP-eligible sites and 7 undetermined eligible archaeological sites.	Substantial effects. 0 NRHP-eligible sites and 7 undetermined eligible archaeological sites.
Section 4(f)/Section 6(f)	No Effect	65 Section 4(f) properties and 3 Section 6(f) properties in the EIS Study Area. The alternative may avoid Section 4(f) resources by remaining inside existing rail or transportation right-of-way.	64 Section 4(f) properties and 3 Section 6(f) properties in the EIS Study Area. All of the Central Section alternatives are likely to result in a potential use of Section 4(f) resources. Design refinements to avoid specific Section 4(f) properties and/or to minimize harm will be addressed at the project level.			62 Section 4(f) properties and 2 Section 6(f) properties in the S4 HrSR Study Area. 1 Section 4(f) property and 0 Section 6(f) properties in the S6 HrSR and HSR study areas. Southern Section alternatives may avoid Section 4(f) resources by remaining inside existing rail or transportation right-of-way or by implementing variations of the evaluated alternatives at the project-level that would traverse areas where no Section 4(f) resources have been identified.		
Travel Demand and Transportation	No Effect	Effects on Transit Providers: 50% and 44% of bus and air passengers would be diverted to rail, respectively. This would have substantial (negative) effects on both bus and air service providers. Change in VMT: Negligible (beneficial) effects. 0.6% reduction in VMT. Potential secondary beneficial effect (reduced congestion) to bus service	Effects on Transit Providers: 22% and 68% of bus and air passengers would be diverted to rail, respectively. Resulting in moderate and substantial effects on bus and air service providers, respectively. Change in VMT: Substantial (beneficial) effects. 8.6% reduction in VMT. Potential secondary beneficial	Effects on Transit Providers: 23% and 70% of bus and air passengers would be diverted to rail, respectively. Resulting in moderate and substantial effects on bus and air service providers, respectively. Change in VMT: Substantial (beneficial) effects. 9% reduction in VMT.	Effects on Transit Providers: 21% and 62% of bus and air passengers would be diverted to rail, respectively. Resulting in moderate and substantial effects on bus and air service providers, respectively. Change in VMT: Substantial (beneficial) effects. 7.2% reduction in VMT. Potential secondary beneficial	Effects on Transit Providers: 23% and 64% of bus and air passengers would be diverted to rail, respectively. Resulting in moderate and substantial effects on bus and air service providers, respectively. Change in VMT: Negligible (beneficial) effects. 0.2% reduction in VMT.	Effects on Transit Providers: 9% of bus passengers would be diverted to rail. Resulting in moderate effects on bus service providers. No effect on air carriers. Change in VMT: Negligible (beneficial) effects. 0.4% reduction in VMT. Potential secondary beneficial effect (reduced congestion) to bus	Effects on Transit Providers: 15% of bus passengers would be diverted to rail, resulting in moderate effects on bus service providers. No effect on air carriers. Change in VMT: Negligible (beneficial) effects. 0.9% reduction in VMT. Potential secondary beneficial effect (reduced congestion)

Resources	Alternatives							
	No Build Alternative	N4A CONV	C4A HSR	C4B HSR	C4C HSR	S4 HrSR	S6 HrSR	S6 HSR
		providers.	effect (reduced congestion) to bus service providers. For air carriers the potential benefits may include the opportunity to shift from short-haul to longer-haul flight operations, which may include more reliable scheduling and increased revenue.	Potential secondary beneficial effect (reduced congestion) to bus service providers. For air carriers the potential benefits may include the opportunity to shift from short-haul to longer-haul flight operations, which may include more reliable scheduling and increased revenue.	effect (reduced congestion) to bus service providers. For air carriers the potential benefits may include the opportunity to shift from short-haul to longer-haul flight operations, which may include more reliable scheduling and increased revenue.	Potential secondary beneficial effect (reduced congestion) to bus service providers. For air carriers the potential benefits may include the opportunity to shift from short-haul to longer-haul flight operations, which may include more reliable scheduling and increased revenue.	service providers.	to bus service providers.

[a] All build alternatives in the Southern Section would have higher GHG emissions in 2035 compared to No Build Alternative, partially due to the conservative assumptions made in the travel demand modelling for the Southern Section. Build alternatives in the Southern Section would have net GHG emission increases compared to No Build Alternative, primarily due to the addition of the new rail transportation mode that did not previously exist in the region. However, the levels of GHG reduction in the Northern and Central Section alternatives are greater than the levels of GHG increases estimated for the Southern Section alternatives. When GHG emissions from the build alternatives in the Northern, Central, and Southern Sections are combined and compared to the combined emissions from the No Build Alternative, the results indicate that the Program would result in a net GHG emission reduction in 2035.

[b] Category 1 noise- and vibration-sensitive land uses are those that are set aside for serenity and quiet, such as outdoor amphitheaters. Category 2 noise- and vibration-sensitive land uses include residences and hotels. Category 3 land uses include churches, schools, recreation areas, and similar land use activities with which noise and vibration could interfere.

[c] The most intense effect for each alternative is presented in the table; however, alternatives may include additional, less intense effects depending on urban or rural locations, density of utilities, and if existing or new track would be constructed.

[d] The most intense effect for each alternative is presented in the table. However, alternatives may include additional, less intense effects depending on specific geologic hazards.

[e] The most intense effect for each alternative is presented in the table. However, some alternatives may include additional less intense effects depending on urban, suburban, or rural locations.

BMP = best management practice

GHG = greenhouse has

MBTU = million British thermal units

NRHP = National Register of Historic Places

VMT = vehicle miles traveled

1.3 Public Outreach since the Release of the DEIS

1.3.1 Notice of Availability

An NOA for the DEIS was published on July 15, 2016, in the *Federal Register*. The NOA informed interested parties that the DEIS for the Program was available for public review. This publication initiated a 45-day comment period intended to encourage participation by the public through their review and input on the findings presented in the DEIS.

The NOA announced three public open houses/public hearings, and invited comments through multiple means. Comments on the DEIS could be provided via the following:

- By **email** to Mark.Werner@txdot.gov
- By **postal mail** to Mark Werner, Rail Division, TxDOT, 125 E. 11th Street, Austin, TX 78701-2483
- By **telephone** to Mark Werner at (512) 486-5137
- By comment card at three public open houses/public hearings:
  - Tuesday, August 9, 2016
    - Public Open House from 5:30 p.m. to 6:00 p.m.
    - Public Hearing from 6:00 p.m. to 8:00 p.m.
    - TxDOT Laredo District Office, 1817 Bob Bullock Loop, Laredo, TX 78043, Large Meeting Room
  - Wednesday, August 10, 2016
    - Public Open House from 5:30 p.m. to 6:00 p.m.
    - Public Hearing from 6:00 p.m. to 8:00 p.m.
    - TxDOT Austin District, 7901 N. IH-35, Austin, TX 78753, Big 7, District Hearing Room
  - Thursday, August 11, 2016
    - Public Open House from 5:30 p.m. to 6:00 p.m.
    - Public Hearing from 6:00 p.m. to 8:00 p.m.
    - NCTCOG, 616 Six Flags Drive, Arlington, TX 76011, Transportation Council Room
- Through the Program's website: https://www.txdot.gov/inside-txdot/projects/studies/statewide/texas-oklahoma-rail.html

Following the publication of the NOA, the DEIS was made available on the following websites:

- Program website: https://www.txdot.gov/inside-txdot/projects/studies/statewide/texas-oklahoma-rail.html
- FRA website: https://www.fra.dot.gov/Page/P0716

A hard copy of the DEIS was also made available at the following sites:

- TxDOT Laredo District Office, 1817 Bob Bullock Loop, Laredo, TX 78043
- TxDOT Rail Division Office, 118 East Riverside Drive, Austin, TX 78704
- NCTCOG, 616 Six Flags Drive, Arlington, TX 76011
- ODOT, 200 NE 21st Street, Oklahoma City, OK 73105
- FRA, 1200 New Jersey Avenue SE, Washington, D.C., 20590

Digital copies of the DEIS were also distributed to selected agencies and stakeholders for their review. The list of agencies and stakeholders that received notification of the availability of the DEIS is included in Appendix A.

1.3.2 2016 Public Open Houses/Public Hearings

The Council on Environmental Quality regulation (40 CFR § 1506.6) defines the public involvement requirements that must be upheld to satisfy the requirements of the NEPA process. This regulation states that if a DEIS is to be considered at a public hearing, the agency should make the statement available to the public at least 15 days in advance (unless the purpose of the hearing is to provide information for the DEIS). The NOA for the DEIS was published on July 15, 2016, 25 days before the public hearing.

TxDOT announced the availability of the DEIS, public meetings, and public hearings through legal notices published in the following newspapers along the Program corridor:

- Oklahoma City – *The Oklahoman* – English and Spanish
- *Dallas Morning News* – English and Spanish
- Fort Worth – *Arlington Star Telegram* – English
- *La Estrella* (Spanish version of *Star Telegram*) – Spanish
- *Waco Tribune-Herald* – English and Spanish
- *Austin American Statesman* – English and Spanish
- *San Antonio Express News* – English and Spanish
- Brownsville – *The Herald* – English and Spanish

No legal notice was published in the Laredo area; however, articles announcing the public open house/public hearing ran in the online version of the *Laredo Morning Times* on July 27 and August 8, 2016. Both the English and Spanish notices are included in Appendix B.

TxDOT hosted public open houses/public hearings on August 9, 10, and 11, 2016, in Laredo, Austin, and Dallas, respectively, to engage the public during the 45-day comment

period and to allow the public to submit verbal comments on the findings presented in the DEIS. These meetings were focused on providing public access to professional staff to help answer questions and offer guidance on how to review and comment on the DEIS. During the open houses/public hearings, materials were made available, including the DEIS with appendices, exhibits, and there was a DEIS overview video presentation. Upon arrival, attendees were given the opportunity to sign up to speak and provide verbal comments. All exhibits provided at the meeting can be found in Appendix C.

The public engaged with professional staff and were given opportunities to obtain clarification on the information presented in the DEIS. More than 170 individuals attended at least one of the public open houses/public hearings. Of these attendees, 13 speakers who provided verbal comments. The sign-in sheets for each of the public open houses/public hearings is provided in Appendix D. The transcript for each hearing is provided in Appendix E, along with the signed TxDOT Public Hearing Certification.

1.3.3 Limited English Proficiency Communities

As part of the DEIS public comment period outreach efforts, a Spanish version of the legal notice was published in the newspapers noted above. Spanish interpreters were available at the public open houses/public hearings. In addition, a Spanish language version of the DEIS overview video presentation and other materials were prepared in Spanish to ensure equal opportunity and access for Limited English Proficiency populations at the public open houses/public hearings. These materials included the following:

- Program fact sheet
- Public hearing informational board
- Public comment card

1.3.4 DEIS Comments Received

The Program, as a whole, received general support. Many stakeholders and the public provided their support of the NEPA Preferred Alternatives based on the comments received during the comment period. However, some commenters expressed concern over the estimated capital cost of the proposed alternatives, the perception that ridership could be substantially lower than projected to justify a significant capital improvement, and localized safety concerns regarding at-grade rail crossings (only applicable to the conventional and higher-speed rail alternatives).

During the 45-day comment period, TxDOT received 178 comment letters or comment cards from various citizens, stakeholders, and agencies in addition to the comments provided by speakers at the public hearings. All comment letters/cards received during the comment period are included in Appendix F. In all, a total of 337 comments were received, ranging from comments of general support or opposition to substantive comments received from NCTCOG, Texas Parks and Wildlife Department (TPWD), and EPA. All comments were

delineated and recorded, along with the responses, in a response to comments matrix (Appendix G).

A total of 61 comments were received from private citizens. One comment of support was received from a tribal nation (Chickasaw Nation), and one from a Mexican government agency (TÜV Rheinland Mexico, Rail division). A total of 184 comments were received from various groups, local businesses, city council members, committee members, and local government officials. TxDOT received 90 comments from agencies.

Most comments received from NCTCOG, TPWD, and EPA were focused on a project-level study as opposed to a service-level study. A conference call was held on September 12, 2016, with TPWD, in conjunction with TxDOT and FRA, during the response to comment process to discuss the comments received from the two agencies. This coordination helped to clarify the scope of the DEIS and to procure consensus among the agencies as to how the comments would be resolved. Some agency comments required corrections or revisions be made to the DEIS. These updates are included Section 1.4, DEIS Errata Sheets, and more detail regarding the resolution of these comments is provided in that section.

The majority of comments received from groups (stakeholders) and local government officials were in regard to the proposed alignments and station locations, in some cases requesting specific locations in their areas, along with service types, specifically high-speed versus higher-speed rail particularly in the Central Section. Most of these comments were supportive of the proposed Program. Comments received from the Laredo area noted the need for the Program to continue from Laredo into Monterrey, Mexico.

Comments received from private citizens noted approval for the Program. Some comments noted concern for the impacts the Program could have to private lands and areas adjacent to and along the alternative alignments. A few noted concern for the cost of the Program and whether ridership would be great enough to allow the Program to be profitable. The response to comments matrix included in Appendix G shows only substantive comments and responses. All other comments not shown in this matrix were more general in context, and the corresponding response to those comments is “Comment Noted.”

1.4 DEIS Errata Sheets

The DEIS errata sheets contained in Table FEIS-2 capture changes that have been incorporated in direct response to comments received during public circulation (DEIS issued July 15, 2016). The changes incorporated into the DEIS are minor and have not affect the selection of the Preferred Alternatives. The table is organized into two sections based on the two types of errata prepared for this EIS:

1. Revised EIS Sections. These are revised DEIS sections, where responses to comments required inclusion of additional information, minor data and wording corrections, and

section formatting updates at multiple locations within the sections to retain readability of each section. The changes have been summarized and the revised sections have been provided so that the reader can more easily follow those revisions. The table lists the topics that were revised in each section in response to comments, and then refers the reader to Appendix H where the full revised sections can be found. The revised sections discussed in the first section of the errata table and presented in Appendix H are:

- DEIS Executive Summary
  - Table ES-3: Summary of Resource Effects in the Northern Section
  - Table ES-4: Summary of Resource Effects in the Central Section
  - Table ES-5: Summary of Resource Effects in the Southern Section
- DEIS Section 3.1.7 Greenhouse Gas and Climate Change
- DEIS Section 3.5 Ecological Systems and Wildlife
- DEIS Section 3.7 Threatened and Endangered Species
- DEIS Chapter 11 References (additional references added)

2. Individual Revisions to DEIS. These are individual corrections or additional information provided outside of the revised sections noted above. Revised sections in which these individual changes were made are not included in Appendix H because the changes are minor in nature and easily described with just the table entry. Sections, subsections, and page numbers are provided for each revision in this part of the table, with the exception of the change noted in Section 3.15, which is a blanket one-word change made in multiple locations throughout that section.

These errata sheets, and the tabular presentation and revised sections, are provided in lieu of a complete update of the DEIS pursuant to Section 1311 of the FAST Act. The updates and revisions noted in this errata sheet do not change the selection of the NEPA Preferred Alternatives, nor do they introduce new discipline-based analyses that were not previously conducted. The combined FEIS/ROD is being used in conjunction with the DEIS to present the most current data.

Table FEIS-2: DEIS Errata Sheet

Chapter	Section	Subsection	Page	Action Taken
Revised EIS Sections				**Revised sections are included in Appendix H. Numerous revisions have been incorporated throughout the sections noted below, and the types of revisions made are described in the section. However, individual revisions are not included, nor are specific page numbers provided.**
Executive Summary	ES.5	NA	ES-15 – ES-31	Changes have been incorporated into Executive Summary Table ES-3: Summary of Resource Effects in the Northern Section, Table ES-4: Summary of Resource Effects in the Central Section by Alternative, and Table ES-5: Summary of Resource Effects in the Southern Section by Alternative to account for revisions to Sections 3.1.7, Greenhouse Gas and Climate Change; 3.5, Natural Ecological Systems and Wildlife; and 3.7, Threatened and Endangered Species, made in response to agency comments during the DEIS Public Comment Period. Revisions made to Sections 3.1.7 and 3.5 do not affect the overall determinations of the alternatives. While revisions to Section 3.7 do include changes to the overall determinations, see the entry for Chapter 3, Section 7 below, which shows they do not impact the selection of the NEPA preferred alternatives. (See Appendix H.)
3	1	7	Multiple	In response to comments received from EPA, additional information has been added in Section 3.1.7, Greenhouse Gas and Climate Change, to Chapter 3, Air Quality. This information provides a supplement to the higher-level analysis that had previously been performed and included in the DEIS. This subsection represents more detailed information than originally provided in the DEIS analysis. The results of this additional information set do not affect the environmental determinations, nor does it affect the selection of the NEPA Preferred Alternatives. (Full subsection provided in Appendix H.)

Chapter	Section	Subsection	Page	Action Taken
3	5	Multiple	Multiple	Multiple revisions have been made throughout Section 3.5. These changes do not affect the environmental determinations, nor do they affect the selection of the NEPA Preferred Alternatives. ▪ Section 3.5.1, Laws, Regulations, and Orders, has been revised to add detail and clarity to the TWPD regulations (p. 3.5-1). ▪ References to specific acreage amounts of reported presence of wildlife corridors and assemblages and sensitive plant communities have been removed, and the associated text and table references have been updated throughout to reflect this revision. The term “acreages” has been changed to “locations” throughout the section. ▪ A brief description of the Texas Natural Diversity Database (TXNDD) and discussion of the use of TXNDD in the analysis of the natural ecological systems and wildlife has been added to Section 3.5.2, Methodology (p. 3.5-3). Discussions of the use of TXNDD have been revised throughout Section 3.5, and additional language on the future use TXNDD has been added to Section 3.5.6, Subsequent Analysis (p. 3.5-41). ▪ The references to “located” or “occur” with respect to potential occurrences of habitats have been changed to “reported” throughout Section 3.5.3. ▪ Minor, non-substantive changes have been made throughout the section to support the needed changes and to add clarity. (Full subsection provided in Appendix H.)

Chapter	Section	Subsection	Page	Action Taken
3	7	Multiple	Multiple	Multiple revisions have been made throughout Section 3.7 in response to TWPD comments received during the DEIS public comment period: ▪ A supplemental county-by-county listing of special-status species, consistent with the Northern, Central, and Southern Sections, has been added to bolster the previously conducted analysis of the potential plant and animal species that could be effected. This is included in Table 3.7-6. ▪ The term "critical habitat" has been replaced with "habitat" throughout Section 3.7 because the critical habitat designation represents a high-level of refinement that would be reserved for project-level analysis, including the incorporation of the official "critical habitat" designation. Associated text and table discussions have been revised throughout the section as needed to reflect this change. ▪ Minor, non-substantive changes have been made throughout the section to support the needed changes and to add clarity. ▪ Based on the new data set acquired from TWPD, the potential effect determination was revised from negligible to moderate for all determinations to account for the possibility of occurrences of sensitive plant and wildlife species within the corridor. However, the change in determinations did not affect the overall ranking of the alternatives, nor did it affect the choice of the NEPA Preferred Alternatives. (Full subsection provided in Appendix H.)
11	NA	NA	Multiple	References for Sections 3.1, 3.7, and 3.17 have been added to Chapter 11, References. The revised section in Appendix H includes only the added references. (See Appendix H.)

Chapter	Section	Subsection	Page	Action Taken
Individual Revisions to DEIS				Individual revisions incorporated in response to comments at specific locations within the DEIS.
1	5	2.1	1-20	The word “capitol” has been changed to “capital.”
2	1	2	2-9	Alternative C4C (HrSR and HSR) has been included in Table 2-3: Route Alternatives Analysis Recommendations. The route alternative analysis recommendation for Alternative C4C (Higher-Speed Rail and High-Speed Rail) was to “carry forward.” This alternative was carried forward for analysis in the DEIS.
2	2	1	2-12	Table 2-4 column header has been changed from “New HOV” to “New HOV or Managed Lanes.”
2	2	1	2-13	Table 2-6 column header has been changed from “New HOV” to “New HOV or Managed Lanes.”
3	1	1.1	3.1-1	GHG impacts and climate change effects have been included in the Final EIS.
3	1	3.1	3.1-10	The Dallas-Fort Worth air basin has been included in the first row of Table 3.1.2, General Climate and Existing Air Quality Conditions for the Northern Section.
3	1	3.1	3.1-10	Wherever the DEIS referred to the “Dallas-Fort Worth – Arlington Basin” the language has been changed to the “Dallas-Fort Worth air basin.”
3	1	3.1	3.1-10	Table 3.1.2, General Climate and Existing Air Quality Conditions, has been updated to include Kaufman, Parker, Navarro, Rockwall, and Wise in the list of counties that occur in the Dallas-Fort Worth air basin. In addition “Collins” County has been changed to “Collin” County.
3	1	3.2	3.1-12	Section 3.1.3.2, Northern Section: Oklahoma City to Dallas and Fort Worth, has been updated to include Collin, Kaufman, Parker, Rockwall, and Wise as counties that are in nonattainment for ozone.
3	1	4.1.2	3.1-15	The statement: “About 50 percent of electric power production for Texas and Oklahoma is

Chapter	Section	Subsection	Page	Action Taken
				from coal, with the remainder of production from the combustion of natural gas and renewable sources, which generate fewer emissions than the combustion of diesel (U.S. Energy Information Administration 2014)." has been changed to read: "About 25 and 24 percent of electric power production for Texas and Oklahoma, respectively, is from coal, with the remainder of production from the combustion of natural gas and renewable sources, which generate fewer emissions than the combustion of diesel (U.S. Energy Information Administration 2014)."
3	1	5.1	3.1-25	The first three bullets under Section 3.1.5.1, Construction Phase, have been replaced with the following text: ▪ Develop a Construction Emissions Mitigation Plan that may include the following control measures in order to reduce impacts associated with emissions of particulate matter and other pollutants from construction-related activities: - Fugitive Dust Source Controls o Use of low-emissions vehicles during construction, and use of newer and well-maintained equipment. o Stabilization of heavily used unpaved construction roads with a non-toxic soil stabilizer or soil weighting agent, or other approved soil stabilizing method, that will not result in loss of vegetation, or increase other environmental impacts. o Use of water during grading, as necessary, on disturbed areas in construction sites to control visible plumes. o Cover or treat soil storage piles and disturbed areas that remain inactive for longer than I0 days with appropriate dust

Chapter	Section	Subsection	Page	Action Taken
				suppressant compounds. o Provide vehicles (used to transport solid bulk material on public roadways and that have potential to cause visible emissions) with covers or, alternatively, sufficiently wet and load materials onto the trucks in a manner to provide at least one foot of freeboard. o Limit speeds to 25 miles per hour on stabilized unpaved roads as long as such speeds do not create visible dust emissions and 10 miles per hour or less on unpaved areas within construction sites on un-stabilized (and unpaved) roads, with posted visible speed limit signs at construction site entrances. o Inspect and wash construction equipment vehicle tires, as necessary, so they are free of dirt before entering paved roadways, if applicable, and provide gravel ramps of at least 20 feet in length at tire washing/cleaning stations, and ensure construction vehicles exit construction sites through treated entrance roadways, unless an alternative route has been approved by appropriate lead agencies, if applicable. o Sweep the first 500 feet of paved roads exiting construction sites, other unpaved roads en route from the construction site, or construction staging areas whenever dirt or runoff from construction activity is visible on paved roads, or at least twice daily (less during periods of precipitation). o Use of wind erosion control techniques (such as windbreaks, water, chemical dust suppressants, and/or vegetation) where soils are disturbed in construction, access and maintenance routes, and materials stock pile areas. Keep related

Chapter	Section	Subsection	Page	Action Taken
				windbreaks in place until the soil is stabilized or permanently covered with vegetation. o Identify sensitive receptors in the project area, such as schools, hospitals, and residences, and specify the means by which impacts to these populations will be minimized (e.g., locating construction equipment and staging zones (concrete and asphalt batch plants) away from sensitive receptors and building air intakes). - Storm Water Controls: o Use of sandbags or equivalent effective measures to prevent run-off to roadways in construction areas adjacent to paved roadways and ensure consistency with the project's Storm Water Pollution Prevention Plan, if such a plan is required for the project.
3	14	6	3.14-14	The following sentences have been inserted before the last sentence of the first paragraph of the section: "The land use analysis will also involve reviewing and analyzing consistency with the objectives of federal, state, tribal or local land use plans, policies and controls in the project-level areas. The subsequent analysis will also include consistency evaluations of all types of formally adopted documents for land use planning, conservation, zoning and related regulatory requirements."
3	15		Multiple	The U.S. Census Bureau refers to "disabled populations" rather than "handicapped populations." Wherever Section 3.15, Socioeconomics and Environmental Justice, referred to "handicapped" the language has been changed to "disabled."

Chapter	Section	Subsection	Page	Action Taken
3	17	4.5.2	3.17-45	The paragraph that stated: "As Alternative S6 Higher-Speed Rail extends south, it would require a new alignment through rural areas of south Texas. It would bisect Chaparral Wildlife Management Area; however, impacts on that resource may be avoided at the project level. There are large areas nearby where the alignment could be routed to minimize potential impacts on the wildlife management area. If it can be avoided, the construction phase of Alternative S6 Higher-Speed Rail would have negligible effects on recreational resources." has been changed to read: "As Alternative S6 Higher-Speed Rail extends south, it would require a new alignment through rural areas of south Texas. Based on the service-level route alignment, it would bisect the Chaparral Wildlife Management Area. However, based upon future project-level analysis and opportunities to modify the route alignment, impacts on that resource may be avoided at the project level. While the presence of large areas near this wildlife management area could provide avoidance options to minimize potential effects, the current alignment would still introduce a physical encroachment. Therefore, the construction and operation of Alternative S6 Higher-Speed Rail would have a moderate effect on recreational resources."
3	17	2	3.17-2	Resource "Texas Parks and Wildlife Department websites for parks and wildlife management areas" has been deleted.
3	17	6	3.17-47	Additional text has been added to include: ▪ Review of Land and Water Resources Conservation and Recreation Plan (LWRCRP) 2012 Statewide Inventory will be conducted during project-level analysis. ▪ Detailed coordination with TPWD regarding route alignment options to avoid or minimize effects to recreational resources will be conducted.

Chapter	Section	Subsection	Page	Action Taken
4	8		4-56	Step 2 paragraph has been replaced in its entirety with the following: "Conduct a more detailed, project level evaluation to determine if additional Section 4(f) or 6(f) properties are located in the Study Area, including Ray Roberts WMA and Chaparral WMA, (that were not identified at the service level). Project-level processes will also include a step to confirm the eligibility of assumed Section 4(f) properties, including ownership details, property boundaries, and NRHP eligibility if the property is a historic property. In addition, property management practice details from resource management plans for refuges, parks, and recreational properties will be reviewed. This review will be closely coordinated with TPWD."

In coordination with Oklahoma DOT

Record of Decision

Prepared by

Texas Department of Transportation

U.S. Department
of Transportation
**Federal Railroad
Administration**

June 2017

FEDERAL RAILROAD ADMINISTRATION

Texas-Oklahoma Passenger Rail Development Program
Final Service-Level Environmental Impact Statement
Record of Decision

Submitted pursuant to the National Environmental Policy Act (42 U.S.C. 4321 et seq.); Federal Railroad Administration Procedures for Considering Environmental Impacts (64 FR 28545, May 26, 1999); Council on Environmental Quality's regulations implementing NEPA (40 CFR Parts 1500-1508); Federal Transit Administration's Environmental Impact and Related Procedures (23 CFR Part 771).

by the:
Federal Railroad Administration

Sponsoring Agency
Texas Department of Transportation

Cooperating Agencies
U.S. Army Corps of Engineers

Paul Nissenbaum
Associate Administrator
Federal Railroad Administration

Date: 10/23/17

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The Federal Railroad Administration (FRA) is issuing this Record of Decision (ROD) concurrently with the Final Service-level Environmental Impact Statement pursuant to Section 1311 of the Fixing America's Surface Transportation Act (Pub. L. 114-94). Through this ROD, FRA **selects** the Alternatives N4A Conventional Rail (N4A CONV), C4A High-Speed Rail (C4A HSR), C4B High-Speed Rail (C4B HSR), C4C High-Speed Rail (C4C HSR), S4 Higher-Speed Rail (S4 HrSR), S6 Higher-Speed Rail (S6 HrSR), and S6 High-Speed Rail (S6 HSR) for further review in project-level studies for intercity passenger rail service between Oklahoma City and South Texas (Laredo, Corpus Christi, Brownsville). Alternatives N4A CONV, C4A HSR, C4B HSR, and C4C HSR would enhance existing rail service, reduce travel times, and improve service reliability. Alternatives S4 HrSR, S6 HrSR, and S6 HSR would introduce passenger rail service into the area, reduce travel times, and improve service reliability.

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2. Record of Decision

2.1 Introduction

This is the Federal Railroad Administration's (FRA) service-level Record of Decision (ROD) for the Texas-Oklahoma Passenger Rail Study (Study) conducted by the Texas Department of Transportation (TxDOT). FRA is an operating administration of the U.S. Department of Transportation (USDOT) and the federal Lead Agency for the service-level Environmental Impact Statement (EIS) conducted under the National Environmental Policy Act (NEPA). The federal Cooperating Agency for the process is the U.S Army Corps of Engineers.

This ROD addresses broad corridor issues and alternatives. Subsequent project-level NEPA evaluations will analyze site-specific projects based on the service-level evaluations. The build alternatives have been developed to a level of detail appropriate for a service-level analysis: preliminary alignments represent potential corridors where rail improvements could be implemented but do not specify the precise location of the track alignment. The preliminary alignments are based on conceptual engineering that considers and avoids obvious physical or environmental constraints. These alignments have not been refined to optimize performance, reduce cost, or avoid specific properties or individual environmental resources. For alternatives selected at the service level for further evaluation, the above considerations would be assessed at the project level.

Based on the service-level analysis as presented in the Draft Environmental Impact Statement (DEIS) and Final EIS (FEIS), FRA has selected the following alternatives:

- Alternative N4A Conventional Rail service (N4A CONV) from Oklahoma City to Fort Worth with service extending to Dallas. Alternative N4A CONV would provide enhanced opportunities and improvements over the existing service, with faster service and more frequent connections.
- Alternative C4A High-Speed Rail service (C4A HSR) from Dallas-Fort Worth to San Antonio. Service would operate between Fort Worth and Dallas with a stop at Dallas/Fort Worth International Airport (DFW) and extend south from Dallas to San Antonio. This service would provide efficient and reliable intercity passenger rail service along the corridor from Dallas and Fort Worth to San Antonio that is time-competitive with other travel modes and options. It would also help alleviate congestion along Interstate Highway 35 (IH-35) and provide connecting service to major regional air carrier services such as Austin-Bergstrom International Airport (AUS) and DFW.
- Alternative C4B High-Speed Rail service (C4B HSR) from Dallas and Fort Worth to San Antonio. Service would operate between Fort Worth to Dallas with a stop in Arlington, then continuing south from Arlington to San Antonio. This service would provide

efficient and reliable intercity passenger rail service along the corridor from Dallas and Fort Worth to San Antonio that is time-competitive with other travel modes and options. This alternative would help alleviate congestion along IH-35 and provide connecting service to major regional air carrier services such as AUS and DFW.

- Alternative C4C High-Speed Rail service (C4C HSR) from Dallas and Fort Worth to San Antonio. Service on this route would operate in a clockwise direction, running from Hillsboro to Fort Worth, east to Dallas, with a stop at DFW, back to Hillsboro, and south to San Antonio. This service would provide efficient and reliable intercity passenger rail service along the corridor from Dallas and Fort Worth to San Antonio that is time-competitive with other travel modes and options. It would also help alleviate congestion along IH-35 and as provide connecting service to major regional air carrier services such as AUS and DFW.
- Alternative S4 Higher-Speed Rail service (S4 HrSR) from San Antonio to Brownsville with an east-west leg from Laredo to Corpus Christi intersecting the north-south service in Alice. This alternative introduces intercity passenger rail service as a new alternative to transportation modes for the region and would provide an equitable and affordable intercity travel alternative to automobile, bus, and air service.
- Alternative S6 Higher-Speed Rail service (S6 HrSR) and Alternative S6 High-Speed Rail service (S6 HSR) from San Antonio to Laredo, extending to Monterrey, Mexico. These alternatives are selected only if the Monterrey, Mexico, connection is built. S6 HSR would be more compatible with the recommended Preferred Alternatives in the Central Section (i.e., C4A, C4B, and C4C HSR), which are all high-speed alternatives; however, if higher-speed rail is more compatible with the infrastructure in Mexico, S6 HrSR could be preferred. The S6 Alternatives introduce intercity passenger rail service as a new alternative to transportation modes for the region and would provide an equitable and affordable intercity travel alternative to automobile, bus, and air service. With the extension to Monterrey, they would provide opportunity for efficient international cross-border travel.

FRA selected alternatives for each geographic section separately because the study did not identify a single service type (conventional, higher-speed, or high-speed) that could feasibly serve all three geographic sections as a single service type. Instead, FRA selected alternatives between the endpoint cities of each geographic section (Northern, Central, and Southern—see Section 2.1.2 for descriptions). In addition, FRA selected more than one alternative in the Central and Southern sections because these alternatives would provide different service types or serve different cities. These selected alternatives do not preclude connectivity between geographic sections of the Texas-Oklahoma Passenger Rail Program (Program), but do not assume connectivity either. Details about how selected alternatives might connect to other geographic sections or other rail service will be analyzed during future project-level analyses.

This ROD describes the NEPA Selected Alternatives and documents FRA's decision-making process in identifying the alternatives. This ROD does not grant approval for construction, funding, or permitting within the decision-making steps; instead, it provides for further detailed planning and potential project-level analysis of the NEPA Selected Alternatives.

Based upon the consideration of the data presented in the DEIS, FEIS, and this ROD, FRA has made its decision that the service-level alternatives as presented above are selected for further consideration at the project-level. A more detailed description of the NEPA Selected Alternatives is provided in Section 2.4 of this ROD. Additional rationale for this decision is contained in the remainder of this ROD.

2.1.1 Planning Development Process

High-speed passenger rail has been under consideration in Texas since the late 1980s. In the 1990s, a private consortium was awarded a franchise to design, build, and operate high-speed rail in the state, though lack of funding and other obstacles prevented that project from moving forward. In 2000, FRA designated the South Central Corridor, including the area between San Antonio and Dallas and Fort Worth, as a future high-speed rail corridor. In 2010, TxDOT received a grant from FRA to study passenger rail in that corridor. In 2010, the Texas A&M Transportation Institute, in cooperation with TxDOT and the FRA, completed a study that evaluated the potential for development of an intercity rail and express bus system in Texas. The results of that study indicated a critical need for efficient travel scenarios for both freight and passenger demand. The study developed a preliminary concept plan with potential costs and benefits for intercity transportation corridors that would be served by an intercity rail/express bus system and would not preclude a future rail system capable of operating at higher speeds.[1]

The environmental process for the Program began with the Notice of Intent to prepare an EIS, which was published in 2013 and initiated Study Scoping, which progressed parallel with the Alternatives Analysis process. The Scoping process concluded in 2013, with the final Scoping Report being submitted to TxDOT and FRA in November 2013. Comments received during the Scoping process were categorized and gathered into a master comment matrix and considered during the DEIS analysis process. The Notice of Availability for the DEIS was published on July 15, 2016. Table ROD-1 lists the milestones of this NEPA environmental process.

[1] Texas A&M Transportation Institute. 2010. *Potential Development of an Intercity Passenger Transit System in Texas – Final Project Report*. FHWA/TX-10/0-5930-2. May 2010.

Table ROD-1: NEPA Environmental Process Milestones and Dates

Milestones	Date
Notice of Intent Published	March 13, 2013
Scoping Meetings	March 25 to April 4, 2013
Scoping Report	November 20, 2013
Alternatives Analysis Report	November 11, 2014
Draft EIS	July 1, 2016
Notice of Availability for DEIS Published	July 15, 2016
Public Comment Period	July 15 to August 29, 2016
Public Hearings	August 9, 10, 11, 2016

2.1.2 Purpose and Need

The purpose and need statement for the Program identified two levels of discussion:

- Overall purpose and need for the entire 850-mile Program corridor from Oklahoma City to south Texas (see Figure FEIS-1).
- Purpose and need specific to each of the three geographic sections that compose the Program corridor:
  - Northern Section: Oklahoma City, Oklahoma, to Dallas and Fort Worth, Texas
  - Central Section: Dallas and Fort Worth to San Antonio
  - Southern Section: San Antonio to South Texas

2.1.2.1 Overall Program – Purpose

The purpose of the Program is to enhance intercity mobility by providing enhanced passenger rail service as a transportation alternative that is competitive with automobile, bus, and/or air travel. The objectives of the overall Program are the following:

- Provide high-quality intercity rail service that will offer competitive travel times, schedule reliability, and traveler comfort.
- Encourage more efficient and environmentally sensitive modes of intercity travel.
- Provide an equitable and affordable intercity travel alternative.
- Enhance interconnectivity between intercity rail services, regional transit services, and major regional airports.

- Enhance environmental sustainability by facilitating regional land use and transit-oriented development plans within the Program corridor.
- Enhance interregional access to employment, entertainment, recreation, health, and shopping opportunities within the Program corridor.
- Coordinate and avoid conflicts with freight rail operations and facilities.
- Be a cost-efficient investment where the projected train service revenue meets or exceeds the following percentages[2] of operations and maintenance costs:
  - Conventional rail (speeds up to 90 miles per hour [mph]) = 50 percent
  - Higher-speed rail (speeds up to 125 mph) = 75 percent
  - High-speed rail (speeds up to 220 to 250 mph) = 100 percent

2.1.2.2 Overall Program – Need

The need for the Program arises from the inadequacies of existing passenger rail service and other modes of transportation to meet current and future mobility needs in the Program corridor, which are the following:

- Population and economic growth will increase travel demand, generate additional roadway and aviation congestion, and reduce automobile, aviation, and transit reliability, thereby requiring regional mobility alternatives.
- Limited intercity passenger rail service and capacity and lack of interregional connectivity restrict both mobility and economic development.
- Declining air quality resulting from increased travel demand and congestion requires more environmentally sustainable modes of travel.
- Growth in truck and rail freight has negative effects on the safety of the transportation system.

2.1.2.3 Northern Section – Purpose and Need

2.1.2.3.1 Northern Section – Purpose

The purpose of the Program in the Northern Section is to provide efficient and reliable intercity passenger rail service along the Northern Section of the Program corridor that is competitive with other travel options. The specific objectives are the following:

[2] For the EIS, cost efficiency is defined as the estimated percentage of operating cost (including operations and maintenance of the service) that could be recovered through service revenue such as passenger fares. The higher the percentage, the greater the cost efficiency. Capital costs such as the cost of rail construction and purchase of train sets is not included the evaluation of cost efficiency. The three different cost-efficiency thresholds reflect the expectation that higher-speed rail and, to an even greater extent, high-speed rail, are capable of higher rates of cost recovery (higher cost efficiency) compared with conventional rail service.

- Provide faster and more frequent intercity connections between central Oklahoma and communities in southern Oklahoma and the state of Texas, specifically the Dallas and Fort Worth region in north Texas. These potential improvements in speed and frequency would also apply to local transit connections in the Dallas-Fort Worth Metroplex, as well as a connection to the national intercity rail network.
- Enhance opportunities for rail service that is connected with current and planned intercity passenger rail and air passenger services, such as linking with DFW.
- Reduce delays and bottlenecks to create competitive passenger rail service travel times compared with other modes of intercity travel, including private vehicles, buses, and air carriers.
- Provide intercity passenger rail service that supports the transit-oriented development objectives of the *Intermodal Transportation Hub Master Plan for Central Oklahoma*.[3]
- Protect the carrying capacity of freight rail.
- Provide mode alternatives that help meet the region's air quality attainment goals.

2.1.2.3.2 Northern Section – Need

Population and economic growth in the Northern Section are projected to increase intercity passenger travel demand beyond that which can be accommodated by the existing highway, intercity passenger rail, and air travel systems in the Northern Section. Specific needs for the Northern Section are the following:

- Increasing population density and changes in demographic profile require alternatives in regional mobility.
- Existing constrained passenger rail service that competes with freight for rail line capacity is affected by delays and makes it difficult to attract business or short-travel riders.
- Inefficient connections with other modes of travel reduce the attractiveness of passenger rail as an intercity travel alternative.
- Local governments require regional support to improve interregional connectivity.

2.1.2.4 Central Section – Purpose and Need

2.1.2.4.1 Central Section – Purpose

The purpose of the Program in the Central Section is to provide efficient and reliable intercity passenger rail service along the corridor from Dallas and Fort Worth to San Antonio that is competitive with other travel options. Specific objectives include the following:

[3] Association of Central Oklahoma Governments. 2011

- Provide efficient intercity rail service to DFW as a more environmentally sustainable option to commuter flights, and provide regional connectivity for long-distance passengers upon arrival and departure.
- Provide connecting service to hubs for major regional air carrier services, such as AUS and DFW, where passenger rail becomes the regional leg of a long-distance domestic or international journey.
- Provide a viable transportation option compared to continued expansion of IH-35.
- Avoid conflicts with freight rail operations and congested track areas.
- Provide direct, intercity rail service between Dallas and Fort Worth.
- Provide opportunities for interconnected service with other planned intercity passenger rail services (such as the proposed high-speed rail from Dallas to Houston).
- Provide intermodal connections with transit in served urban areas.
- Protect the carrying capacity of freight rail.

2.1.2.4.2 Central Section – Need

Multiple transportation, land use, socioeconomic, and environmental considerations drive the need for the Program in the Central Section, including the following:

- Changing transportation demand of an increasing transit-dependent population requires an alternative mode.
- Inefficient and infrequent rail service limits ridership.
- Increasing congestion and unreliable travel times on both the existing highway and rail services require an alternative interregional service.
- Poor and declining air quality requires more sustainable modes of travel.

2.1.2.5 Southern Section – Purpose and Need

2.1.2.5.1 Southern Section – Purpose

The purpose of the Program in the Southern Section is to provide efficient and reliable intercity passenger rail service from San Antonio to south Texas that is competitive with other mode options. Specific objectives include the following:

- Provide an equitable and affordable intercity travel alternative.
- Meet future intercity travel demand along the IH-35, IH-37, and U.S. Highway 281 corridors.
- Provide opportunity for efficient international cross-border travel.
- Coordinate with and avoid negative affects to freight rail operations or facilities.
- Meet the region's air quality attainment goals.

In addition, there is a desire to have an option to extend passenger rail service to Monterrey, Mexico, based upon previous passenger rail operation and upon the interest and support expressed for this option during the EIS scoping period.

2.1.2.5.2 Southern Section – Need

Population and economic growth in the Southern Section will increase intercity passenger travel demand beyond that which can be accommodated by the existing highway and air travel systems. Air service options available in the Southern Section are limited. Specific needs for the Southern Section include the following:

- Regional and cross-border travel is constrained by uncompetitive trip times, poor reliability, and low levels of passenger convenience.
- Poor and declining air quality requires more sustainable modes of travel.

2.2 Alternatives Considered in Draft Environmental Impact Statement

The following sections describe the alternatives considered in the DEIS and the basis for the decision that ultimately led to the selection of the previously identified NEPA Preferred Alternatives (FEIS Section 1.2, Selection of NEPA Preferred Alternatives).

The DEIS evaluated the following alternatives:

- No Build Alternative
- Build Alternatives, several of which were recommended as NEPA Preferred Alternatives

2.2.1 No Build Alternative

Federal regulations require that a No Build Alternative be evaluated in an EIS (40 Code of Federal Regulations [CFR] §1502.14 2014). The No Build Alternative was used as the baseline against which the other alternatives were compared for the extent of environmental and community effects.

The No Build Alternative includes the existing and planned transportation programs and projects scheduled to be built and implemented before forecast year 2035. The No Build Alternative includes:

- The existing transportation network, including roadway, passenger rail, and air travel
- Maintenance and planned improvements to these systems, including the following:
  - Roadway Projects: 401 planned
  - Interstate IH-35: 49 planned to increase the capacity along IH-35 by 2035
  - Passenger Rail Routes: 14 planned with planned dates from 2020 to 2035
  - Airport Capacity-building Improvement Project: One planned by 2030

Information necessary to define the No Build Alternative was collected from current regional transportation plans within the Study Vicinity, as well as from websites describing services such as train schedules. Further information on the planned projects in the Study Vicinity that comprise the No Build Alternative is contained in DEIS Chapter 2, Alternatives.

2.2.2 Build Alternatives

The following 10 alternatives were evaluated in the DEIS:

- Northern Section: Alternative N4A CONV
- Central Section: Alternatives C4A, C4B, and C4C with higher-speed rail (HrSR) and Alternatives C4A, C4B, and C4C with high-speed rail (HSR)
- Southern Section: Alternative S4 with HrSR and Alternative S6 with HrSR and Alternative S6 with HSR

2.2.3 Screening Criteria and Metrics

2.2.3.1 Screening Criteria

To evaluate and compare the route alternatives, screening criteria were established to determine how well the route alternatives would fulfill the Program's purpose and need, meet local and regional goals, the level of stakeholder support, and the potential for environmental impacts. The criteria were grouped into the following four categories: alternative attributes, operational criteria, infrastructure criteria, and environmental criteria. The criteria and the measures used to evaluate each are listed in Table ROD-2.

Table ROD-2: Route Alternatives Analysis Screening Criteria

Criterion No.	Criterion	Measure
ALTERNATIVE ATTRIBUTES		
1a	Access to stations	Total population of cities served by stations
1b	Access to stations with endpoint cities removed	Total population of cities served by stations with endpoint cities removed
2	Ridership for each alternative	Ridership (annual trips)
3	Length of route	Length of route in miles
4	Cost to construct alternative	Total capital cost for alternative ($)
OPERATIONAL CRITERIA		
5	Revenue/operating cost ratio	Revenue/operating cost (%)
6	Reduce travel times	Time reduction vs. automobile travel time
7	Enhance mode share on rail	Rail mode share (%)

Criterion No.	Criterion	Measure
INFRASTRUCTURE CRITERIA		
8	Capital cost per passenger-mile	Capital cost per passenger-mile ($)
9	Minimize right-of-way/real estate impacts	Acres of non-transportation right-of-way within EIS Study Area
10	Provide additional improvements to national railroad network	Professional judgment (value of improvements and risk reduction evaluation)
ENVIRONMENTAL CRITERIA[a]		
Minimize Impacts on Natural Resources		
11a	Wetlands	Acres within EIS Study Area
11b	Critical habitat	Acres within EIS Study Area
Minimize Impacts on Cultural/Recreational Resources		
12a	National and State Historic Places	Number of historic sites
12b	River and stream crossings	Number of river and stream crossings (proxy for likelihood of finding cultural resources along alternative because archaeological resources are often found along waterways)
12c	Parks and open space	Acres within EIS Study Area
Minimize Impacts on Social Resources		
13a	Prime farmland	Acres within EIS Study Area
13b	Sensitive receptors	Number of schools, places of worship, and hospitals within EIS Study Area
13c	Environmental justice	Number of census blocks with % minority greater than state

[a] In the Route Alternatives Analysis, a broad corridor of study with a width of 500 feet has been identified along each route as the EIS Study Area, unless described differently in the DEIS resource sections.

2.2.3.2 Screening Metrics

In addition to the criteria noted above in Table ROD-2, the following metrics were also used to analyze the Program alternatives. Metrics that differentiate between alternatives are based on the Program purpose and need, as well as the purpose and need for each geographic section (see above).

2.2.3.2.1 Northern Section: Alternative N4A – Oklahoma City to Dallas and Fort Worth

Due to feasibility based on initial ridership and cost information, only one alternative was considered in the Northern Section: Alternative N4A CONV. This alternative would include most of the same rail line that has been upgraded by TxDOT and Oklahoma Department of Transportation (ODOT) as part of an ongoing passenger rail improvement program and therefore would represent a good use of resources that can be further built upon.

2.2.3.2.2 Central Section: Alternatives C4A, C4B, and C4C – Dallas and Fort Worth to San Antonio

Six alternatives were considered in the Central Section: Alternatives C4A Higher-Speed (C4A HrSR) and C4A HSR, C4B Higher-Speed Rail (C4B HrSR) and C4B HSR, and C4C Higher-Speed Rail (C4C HrSR) and C4C HSR. In the Central Section, four key metrics were identified using studies completed for the Program (TxDOT 2016a, 2016b, 2016c) that could be used to differentiate between alternatives:

- Break-even or profitability:[4] revenue to operating cost ratio, or the ability for an alternative to pay for itself.
- Capital cost investment:[5] cost to construct an alternative.
- User (train rider) and non-user societal benefits:[6]
  - Safety – former highway users switching by choice to train (measured by passenger miles traveled diverted from automobile to train); reduction in fatal and non-fatal automobile accidents.
  - Value-of-time – former highway users (and users of other modes, such as bus or sometimes air) switching by choice to rail (measured by estimated mode-specific number of hours saved); less time traveling from ultimate trip origin to ultimate trip destination.
  - Cars off the road – reduction in automobile usage.

[4] Based on analysis completed as part of the Texas-Oklahoma Passenger Rail Study EIS-Phase Business and Financial Plan (TxDOT 2016c).

[5] Based on analysis competed as part of the Texas-Oklahoma Passenger Rail Study EIS-Phase Capital Investment Plan (TxDOT 2016a).

[6] Based on analysis competed as part of the Texas-Oklahoma Passenger Rail Study EIS-Phase Public Benefits Assessment (TxDOT 2016b).

- Environmental effects: The conclusions on effects for resources analyzed as part of the EIS do not identify important differences between alternatives in the Central Section for the service-level evaluation (see DEIS Chapter 3, Affected Environment and Environmental Consequences). However, there are differences in quantitative measures that can be used to support a general ranking of the alternatives, in conjunction with the other differentiating metrics.

2.2.3.2.3 Southern Section: Alternatives S4 and S6 – San Antonio to South Texas

Three alternatives were considered in the Southern Section: S4 HrSR, S6 HrSR, and S6 HSR.

Alternative S4 HrSR was the only alternative considered between San Antonio and Brownsville and would provide public benefits that include meeting more local transportation needs than any other alternative, which supports the Southern Section purpose and need. Although the potential magnitude of environmental effects are quantitatively greater for this alternative than the other Southern Section alternatives (S4 HrSR serves three different southern endpoint cities), it would contribute to operational performance in the Southern Section by serving the population centers of the southern-most part of the Study Area. So although the environmental criterion value would be highest for this alternative, this condition could be avoided with project-level refinement of the route and would not be expected to be a fatal flaw.

Four key metrics were identified for S6 HrSR and S6 HSR alternatives using studies completed for the Texas-Oklahoma Passenger Rail Study (TxDOT 2016a, 2016b, 2016c) that could be used to differentiate between alternatives:

- Break-even or profitability:[7] revenue to operating cost ratio, or the ability for an alternative to pay for itself.
- Capital cost investment:[8] cost to construct an alternative.
- User (train rider) and non-user societal benefits:[9]
  - Safety – former highway users switching by choice to train (measured by passenger miles traveled diverted from automobile to train); reduction in fatal and non-fatal automobile accidents.

[7] Based on analysis completed as part of the Texas-Oklahoma Passenger Rail Study EIS-Phase Business and Financial Plan (TxDOT 2016c).

[8] Based on analysis competed as part of the Texas-Oklahoma Passenger Rail Study EIS-Phase Capital Investment Plan (TxDOT 2016a).

[9] Based on analysis competed as part of the Texas-Oklahoma Passenger Rail Study EIS-Phase Public Benefits Assessment (TxDOT 2016b).

  - Value-of-time – former highway users (and users of other modes, such as bus or sometimes air) switching by choice to rail (measured by estimated mode-specific number of hours saved); less time traveling from ultimate trip origin to ultimate trip destination.
  - Cars off the road – reduction in automobile usage.
- Environmental effects: The conclusions on effects for resources analyzed as part of the EIS do not identify important differences between alternatives in the Southern Section (S6 HrSR and S6 HSR) for the service-level evaluation (see DEIS Chapter 3, Affected Environment and Environmental Consequences). However, there are differences in quantitative measures that can be used to support a general ranking of the alternatives, in conjunction with the other differentiating metrics.

2.2.4 NEPA Preferred Alternatives from the DEIS

Based on the service-level DEIS evaluation of each of the build alternatives, the following alternatives were recommended as the NEPA Preferred Alternatives that may be considered for potential future project-level analysis, as noted above:

- Northern Section: Alternative N4A CONV
- Central Section: Alternatives C4A, C4B, and C4C HSR
- Southern Section: Alternative S4 HrSR and Alternatives S6 HrSR and S6 HSR

As noted above in ROD Section 2.1 and in DEIS Chapter 2, Alternatives, Alternatives S6 HrSR and S6 HSR are recommended as preferred alternatives only if a connection to Monterrey, Mexico, is established.

These NEPA preferred alternatives have been reviewed and approved by FRA and TxDOT for presentation to the public for review and comment, as described in the following section.

2.3 Public Outreach and Opportunities to Comment

Agencies, non-governmental groups, and the public have been engaged throughout preparation of the EIS for the Program as required by federal and state law. NEPA mandates agency and public participation in defining and evaluating the effects of the Program alternatives. The Program has also followed USDOT guidelines for public participation, including Title VI of the Civil Rights Act of 1964 (42 United States Code [U.S.C.] § 2000 (d)) and Executive Order (12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, 59 *Federal Register* 7629 (February 16, 1994).

NEPA requires that a DEIS provide full disclosure of the environmental impacts associated with a proposed action. The agencies and the public must be given a reasonable opportunity to comment on that action.

The public has been engaged through:

- Public meetings, workshops, and information sessions
- Meetings with community groups and neighborhoods
- Program newsletters and email distribution lists
- Program website
- Interaction with community organizations
- Presentations to boards and elected officials

Informational materials at all public meetings, including presentation materials, handouts, and comment sheets, have been available in Spanish as well as English, and a Spanish-speaking staff member has been present at all meetings.

All DEIS public outreach materials are included in Appendix C

The public review and comment period for the DEIS began when the Notice of Availability was published in the *Federal Register* on July 15, 2016 (81 *Federal Register* 46077), and ended on August 29, 2016. Three public open houses/public hearings on the DEIS were held:

- Tuesday, August 9, 2016
  - Public Open House from 5:30 p.m. to 6:00 p.m.
  - Public Hearing from 6:00 p.m. to 8:00 p.m.
  - TxDOT Laredo District Office, 1817 Bob Bullock Loop, Laredo, TX 78043, Large Meeting Room
- Wednesday, August 10, 2016
  - Public Open House from 5:30 p.m. to 6:00 p.m.
  - Public Hearing from 6:00 p.m. to 8:00 p.m.
  - TxDOT Austin District, 7901 N. IH-35, Austin, TX 78753, Big 7, District Hearing Room
- Thursday, August 11, 2016
  - Public Open House from 5:30 p.m. to 6:00 p.m.
  - Public Hearing from 6:00 p.m. to 8:00 p.m.
  - North Central Texas Council of Governments, 616 Six Flags Drive, Arlington, TX 76011, Transportation Council Room

More than 70 people attended the meeting in Laredo, more than 50 in Austin, and more than 40 in Arlington. Thirteen (13) attendees provided verbal comments on the DEIS at the public open houses/public hearings. Comments received on the Program during the public comment period required factual corrections and minor clarifications to the DEIS; however, no comments warranted further response in the form of additional alternatives or consideration of undisclosed effects.

Comments on the DEIS and exhibits, sign-in forms, and speaker registration cards provided at the public hearings can be found in Appendices C, D, and F of this combined FEIS/ROD.

2.4 Description of the NEPA Selected Alternatives and Environmental Effects

The ROD signals formal federal approval of an EIS and records a federal agency's decision(s) concerning the proposed action for which the agency has prepared the EIS. The proposed action presented in the service-level EIS is to recommend Preferred Alternatives along the Study corridor that may be moved forward into a project-level evaluation.

As noted in DEIS Chapter 2, Alternatives, the Preferred Alternatives are recommended for each geographic section separately. More than one alternative in the Central and Southern Sections were moved forward as Preferred Alternatives because the alternatives provide different service types for independent destinations.

As reflected in the DEIS, more than one of these alternatives could be built in the future, and details on connecting the alternatives will be determined during project-level studies. Recommendation of these Preferred Alternatives does not preclude connectivity between geographic sections of the Study, but it does not assume connectivity either.

FRA has approved the seven Preferred Alternatives as presented in the EIS and, as described above, as the NEPA Selected Alternatives for further analysis at the project-level. This section presents the basis for the decision, a description of each of the alternatives, and a summary of the environmental effects.

2.4.1 Basis for the Record of Decision

The documents considered in making this decision include:

- Long-range planning reports from agencies along the Study Area
- Texas-Oklahoma Passenger Rail Study Service-Level and associated technical reports and supporting documents
- *Texas-Oklahoma Passenger Rail Study Service-Level Service Development Plan* associated technical reports and support documents
- Responses to comments received on the DEIS
- Combined FEIS/ROD (Fixing America's Surface Transportation Act [FAST Act] Section 1311 (a)(b))
- Section 4(f)/6(f) Evaluation
- Technical studies/memoranda
- Correspondence
- Other documents in the project file

A detailed list of referenced materials is included in Chapter 11 of the DEIS.

2.4.2 NEPA Selected Alternatives Description

The NEPA Selected Alternatives have been developed to a level of detail appropriate for a service-level analysis and as a result, the route alternatives described below represent a potential corridor where rail improvements could be implemented but do not specify the precise location of the track alignment. Potential alignments are described as "following" railway corridors, which could mean that they are sharing existing tracks, are located within an existing right-of-way (ROW), or are generally adjacent to existing tracks depending on the service type. As noted above, the NEPA Selected Alternatives are not approving construction, funding, or permitting. They are based on conceptual engineering and have not been refined to optimize performance, reduce cost, or avoid specific properties or individual environmental resources. For alternatives selected at the service level for further evaluation, the above considerations would be assessed at the project level.

FRA has selected Alternative N4A CONV in the Northern Section. In the Central Section, FRA has selected Alternatives C4A HSR, C4B HSR, and C4C HSR; these selected Central Section alternatives differ in how the area from Dallas and Fort Worth to Hillsboro would be serviced but provide identical service form Hillsboro south to San Antonio. In the Southern Section, FRA has selected Alternative S4 HrSR, which would provide service from San Antonio into South Texas (Brownsville) with an intersecting east-west corridor from Laredo to Corpus Christi. FRA has also selected Alternatives S6 HrSR and S6 HSR in the Southern Section from San Antonio to Laredo but only if the project-level study includes the extension from Laredo to Monterrey, Mexico. Both Alternatives S6 HrSR and S6 HSR service types have been selected because it is not known which speed would be more compatible with the infrastructure in Mexico.

2.4.2.1 Alternative N4A Conventional

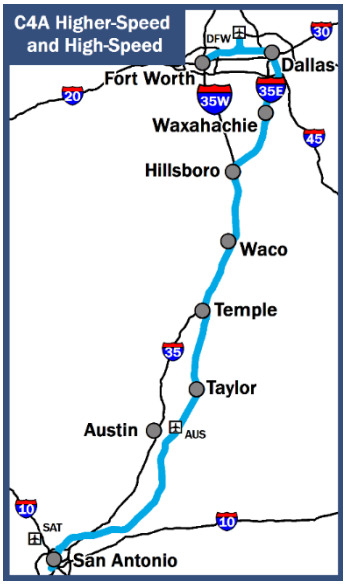
Alternative N4A CONV would begin in Edmond, Oklahoma, and follow the BNSF rail alignment south to Oklahoma City. The alternative would continue south along the Burlington Northern Santa Fe (BNSF) rail alignment to Norman, Oklahoma; through Metro Junction, near Denton, Texas; and on to Fort Worth (as does the Heartland Flyer). From Fort Worth, the alternative would continue to Dallas following the Trinity Railway Express (TRE) tracks. From Edmond, Oklahoma, to Dallas, the route would be approximately 260 miles long. Because existing freight traffic would not preclude passenger service along this section of track, the route would provide passenger rail service on the existing BNSF track, with potential improvements within the existing BNSF ROW.

Alternative N4A CONV would provide several improvements over the existing Heartland Flyer service. Alternative N4A CONV would increase the number of daily round trips along this route (the Heartland Flyer currently offers one round trip per day), and the N4A route would extend from Fort Worth to Dallas without requiring a transfer (the Heartland Flyer service currently terminates in Fort Worth). In addition, Alternative N4A CONV would provide improvements to existing station facilities, and new train equipment with more onboard amenities, including business class available for a premium price.

Alternative N4A CONV assumes diesel-powered, steel-wheeled trains operating on steel tracks at speeds up to 79 to 90 mph. It assumes use of existing railroad ROWs primarily, which may be fenced, and existing railroad track. Roadway crossings may be grade-separated depending on the type of roadway and amount of traffic. Modifications such as double-tracking could be constructed within existing ROW to accommodate additional trains.

Alternative N4A CONV assumes running three to six daily round trips. Two or three of the round trips would operate on an accelerated schedule, making roughly seven stops, with remaining "local" trains making as many as 12 stops.

2.4.2.2 Alternative C4A High-Speed Rail



Alternative C4A HSR would begin in Fort Worth and follow the TRE tracks east to Dallas. From Dallas, it would follow the BNSF alignment south toward Waxahachie where it would enter a new alignment outside existing highway and rail corridors to accommodate maximum operating speeds. Though outside existing transportation corridors, the southern portion of Alternative C4A HSR would generally follow the BNSF alignment for about 250 miles, extending south from Waxahachie through Hillsboro, Waco, Temple, Taylor, and Austin to San Antonio.

Alternative C4A HSR assumes electric trains powered by an overhead power supply system. Train sets are steel wheel on steel rail, but designed to operate at high speeds with an aerodynamic shape, and suspension and braking systems are designed for high-speed travel. Trains would operate at speeds up to 220 to 250 mph. The entire ROW would be fenced and fully grade-separated. This service type could only reach maximum speed outside existing transportation corridors because existing railroad alignments are not compatible with the speeds required, and they do not have the required space for separation of freight and HSR. In areas where this service type is within existing transportation corridors, it would operate at lower speeds.

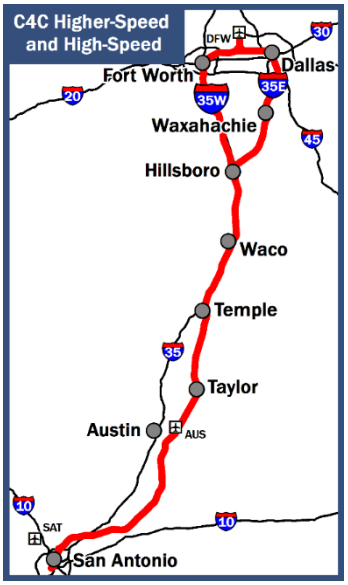
Alternative C4A HSR assumes running 12 to 20 daily round trips. Express trains would likely make six stops, while local trains would make up to nine stops.

2.4.2.3 Alternative C4B High-Speed Rail

Alternative C4B HSR would serve both Fort Worth and Dallas, with trains following a new elevated high-speed alignment over IH-30. In Arlington (between Dallas and Fort Worth), the alternative would turn south to Hillsboro on an alignment outside existing transportation corridors. The alternative would then follow the same high-speed alignment as Alternative C4A HSR from Hillsboro to San Antonio.

Alternative C4B HSR assumes electric-powered, high-speed service running 12 to 20 daily round trips. Express trains would likely make six stops, and local trains would make up to eight stops.

2.4.2.4 Alternative C4C High-Speed Rail



Alternative C4C HSR would follow the same potential alignment as Alternative C4A HSR from Fort Worth east to Dallas and south to San Antonio but would include a link from Hillsboro directly to Fort Worth parallel to the Union Pacific Railroad (UPRR) alignment. Service on the Alternative C4C HSR route would operate in a clockwise direction, running from Hillsboro to Fort Worth, east to Dallas, back to Hillsboro, and south to San Antonio in order to serve Fort Worth directly (while also being compatible with the general service for Alternative C4A HSR).

Alternative C4C HSR assumes electric-powered high-speed service running 12 to 20 daily round trips. Express trains would likely make six stops, while local trains would make up to nine stops.

2.4.2.5 Alternative S4 Higher-Speed Rail

Alternative S4 HrSR would begin in San Antonio and continue southeast along the UPRR alignment to George West, where it would continue outside existing transportation corridors to Alice. At Alice, the alternative would divide into three legs at a stop. The first leg would travel west along the Kansas City Southern (KCS) Railway to San Diego, Texas; then it would travel outside existing transportation corridors to just east of Laredo in an alignment that would allow higher speeds and rejoin the KCS Railway to enter the more highly developed Laredo area. The second leg would travel south along abandoned railroad tracks to McAllen and east to Harlingen and Brownsville. The third leg would travel east along

the KCS Railway to Corpus Christi.

Alternative S4 HrSR assumes new diesel-locomotive hauled equipment on the same steel tracks that support conventional rail but may require improvements such as upgrading wooden ties with concrete ties, improving signaling, and upgrading roadway crossings. Trains would operate at speeds up to 110 to 125 mph. Where proposed within an existing railroad ROW, this alternative would share ROW with the existing railroad, but separate tracks would be constructed for passenger service. The alternative could operate on a single track with passing locations and would not require double-tracking. Where proposed outside an existing transportation corridor, the alternative would be designed with curves and other features that could accommodate high-speed rail service, if warranted by ridership and economically feasible, in the future. The design would not include electrification or a full double track, and some at-grade crossings would remain.

Four to six daily round trips would operate. Depending on corridor demand model forecasts, the primary service may be designated as Laredo-Alice-San Antonio and Corpus Christi-Alice-San Antonio, with a connecting feeder from Brownsville, Harlingen, and McAllen.

2.4.2.6 Alternative S6 Higher-Speed and High-Speed Rail

Alternatives S6 HrSR and S6 HSR would begin in San Antonio and travel south on a new alignment outside existing transportation corridors to a station near the Laredo-Columbia Solidarity Bridge, which crosses the Rio Grande north of Laredo. The alternative would then cross on a new railway bridge to join a new rail line being constructed in Mexico, which would continue to Monterrey. This Study only examined the physical effects of the U.S. component of this new line, but it considered the ridership impact of such a connection.

Alternative S6 HrSR assumes new steel-wheel diesel-locomotive hauled equipment running four to six daily round trips between San Antonio and Laredo, which would be the only U.S. stops for the alternative. If an extension from Laredo to Monterrey were added, the frequency of trips to Monterrey is assumed to be the same as those from San Antonio to Laredo.

Alternative S6 HSR assumes electric-powered, high-speed service running eight to 12 daily round trips between San Antonio and Laredo. If an extension from Laredo to Monterrey were added, the frequency of trips to Monterrey is assumed to be the same as those from San Antonio to Laredo.

2.4.3 Effects of the NEPA Selected Alternatives

The service-level analysis in the EIS evaluated a preliminary alignment to represent each alternative, based on conceptual engineering that considered and avoided obvious physical or environmental constraints. The analysis reviewed generalized effects for a large swath of land within which the Project Area may occur and reported both the potentially adverse and beneficial effects without knowing the exact footprint of the alignment. These alignments were not refined to optimize performance, reduce cost, or avoid specific properties or individual environmental resources, or for any other such considerations. Based on the NEPA Selected Alternatives the above considerations will be assessed at the project level. The project-level analysis will determine specific project impacts while the service-level analysis evaluated and described the general effects by alternative.

Table ROD-3 summarizes the potentially adverse and beneficial effects of the No Build Alternatives and the NEPA Selected Alternatives, which were assessed for both long-term and short-term effects. Long-term benefits and effects from operation were assessed through the year 2035. Short-term effects were primarily those associated with construction activities.

Table ROD-3: Summary of the No Build Alternative and NEPA Selected Alternatives Resource Effects

Resources	Alternatives							
	No Build Alternative	N4A CONV	C4A HSR	C4B HSR	C4C HSR	S4 HrSR	S6 HrSR	S6 HSR
Air Quality	No Effect	Based on limited construction activities and emissions, along with reduced emissions during operation: Negligible (adverse) short-term (construction) and negligible (benefit) long-term regional (operation) effects.	Based on short-term construction emissions and based on operational pollutant emission reductions: Substantial (adverse) short-term (construction) effects and substantial (benefit) long-term regional (operation) effects.	Based on lower short-term construction emissions and based on operational pollutant emission reductions: Moderate (adverse) short-term (construction) effects and substantial (benefit) long-term regional (operation) effects.	Based on short-term construction emissions and based on operational pollutant emission reductions: Substantial (adverse) short-term (construction) effects and substantial (benefit) long-term regional (operation) effects.	Based on construction and operation of new infrastructure: Substantial (adverse) short-term (construction) effects and substantial (adverse) long-term regional (operation) effects.	Based on a shorter alignment and a shift in mode choice and lower pollutant emissions: Moderate (adverse) short-term (construction) and moderate (adverse) long-term regional (operation) effects.	Based on increased construction activities and use of electrified train engines: Substantial (adverse) short-term (construction) effects and negligible (benefit) long-term regional (operation) effects.
Air Quality – GHG and Climate Change[a]	No Effect	Beneficial effect (5% reduction)	Beneficial effect (20% reduction)	Beneficial effect (18% reduction)	Beneficial effect (15% reduction)	Negative effect (2% increase)	Negative effect (3% increase)	Negative effect (16% increase)
Water Quality	No Effect	Surface waters: Negligible effects on waterbodies crossed by the EIS Study Area based on the use of existing railway infrastructure and corridors, and through project design and implementation of BMPs. Runoff: Negligible effect due to low amount of impervious surfaces and implementation of structural stormwater management practices and construction BMPs.	Surface waters: More waterbodies than C4B HSR, fewer than C4C HSR (700 features; 24,187 linear feet of listed Section 303(d) impaired waters). Moderate effects due to the acreage and linear feet crossed. Runoff: Negligible effect due to low amount of impervious surfaces and implementation of structural	Surface waters: Fewer waterbodies than C4A HSR and C4B HSR (650 features; 18,870 linear feet of listed Section 303(d) impaired waters). Moderate effects due to the acreage and linear feet crossed. Runoff: Negligible effect due to low amount of impervious surfaces and implementation of structural	Surface waters: More waterbodies than C4A HSR and C4B HSR (850 features; 23,084 linear feet of listed Section 303(d) impaired waters). Moderate effects due to the acreage and linear feet crossed. Runoff: Negligible effect due to low amount of impervious surfaces and implementation of structural	Surface waters: More waterbodies than S6 HrSR and S6 HSR (443 features; 13,928 linear feet of listed Section 303(d) impaired waters). Moderate effects due to the acreage and linear feet crossed. Runoff: Negligible due to amount of impervious surfaces and implementation of structural stormwater	Surface waters: Fewer waterbodies than S4 HrSR (255 features; 2,921 linear feet of listed Section 303(d) impaired waters). Moderate effects due to the acreage and linear feet crossed. Runoff: Negligible due to amount of impervious surfaces and implementation of structural stormwater management practices and construction BMPs. Erosion: Less erosive soils crossed (4 crossed) but more acreage (691 acres) than S4 HrSR. Negligible effect due to the acreage of erosive soils crossed, which would be minimized with use of construction BMPs. Groundwater: Less aquifers crossed (12,450 acres) than S4 HrSR. Negligible effect as a result of no Sole Source aquifer recharge area crossings, acreage of unconfined aquifer crossings. and implementation of stormwater	

Resources	Alternatives							
	No Build Alternative	N4A CONV	C4A HSR	C4B HSR	C4C HSR	S4 HrSR	S6 HrSR	S6 HSR
		Erosion: Moderate effect due to the acreage of erosive soils crossed, which would be minimized with use of construction BMPs. Groundwater: Negligible effect as a result of no Sole Source Aquifer recharge area crossings, low acreage of unconfined aquifer crossings, and implementation of BMPs.	stormwater management practices and construction BMPs. Erosion: Less erosive soils crossed than C4B HSR and C4C HSR (101 crossed). More acreage than C4B HSR and less than C4C HSR (1,424 acres). Moderate effect due to the acreage of erosive soils crossed, which would be minimized with use of construction BMPs. Groundwater: More aquifers crossed than C4B HSR and less than C4C HSR (25,775 acres crossed). Negligible effect as a result of no Sole Source aquifer recharge area crossings, low acreage of unconfined aquifer crossings, and implementation of stormwater treatment measures and BMPs.	stormwater management practices and construction BMPs. Erosion: More erosive soils crossed than C4A HSR and less crossed than C4C HSR (116 crossed). Less acreage than C4A HSR and C4C HSR (1,395 acres). Moderate effect due to the acreage of erosive soils crossed, which would be minimized with use of construction BMPs. Groundwater: Less aquifers crossed than C4A HSR and C4C HSR (23,160 acres). Negligible effect as a result of no Sole Source aquifer recharge area crossings, low acreage of unconfined aquifer crossings, and implementation of stormwater treatment measures and BMPs.	stormwater management practices and construction BMPs. Erosion: More erosive soils crossed (123 crossed) and more acreage (1,706 acres) than C4A HSR and C4B HSR. Moderate effect due to the acreage of erosive soils crossed, which would be minimized with use of construction BMPs. Groundwater: More aquifers crossed than C4A HSR and C4B HSR (31,900 acres). Negligible effect as a result of no Sole Source aquifer recharge area crossings, low acreage of unconfined aquifer crossings, and implementation of stormwater treatment measures and BMPs.	management practices and construction BMPs. Erosion: More erosive soils crossed (22 crossed) but less acreage (678 acres) than S6 HrSR and HSR. Negligible effect due to the acreage of erosive soils crossed, which would be minimized with use of construction BMPs. Groundwater: More aquifers crossed (27,610 acres) than S6 HrSR and HSR. Negligible effect as a result of no Sole Source aquifer recharge area crossings, acreage of unconfined aquifer crossings, and implementation of stormwater treatment measures and BMPs.	treatment measures and BMPs.	

Resources	Alternatives							
	No Build Alternative	N4A CONV	C4A HSR	C4B HSR	C4C HSR	S4 HrSR	S6 HrSR	S6 HSR
Noise and Vibration	No effect	Noise- and vibration-sensitive land uses are present in the EIS Study Area and would be subject to moderate effects. *Noise*[b] Category 2 receivers: 15,395 acres Category 3 receivers: 245 facilities *Vibration* Category 1 receivers: 1 land use Category 2 receivers: 11,247 acres Category 3 receivers: 24 facilities	Higher amount of noise- and vibration-sensitive land uses than C4B HSR, but lower amount than C4C HSR. Moderate effects. *Noise*[b] Category 2 receivers: 19,466 acres Category 3 receivers: 227 facilities *Vibration* Category 2 receivers: 11,919 acres Category 3 receivers: 39 facilities	Lowest amount of noise- and vibration-sensitive land uses as compared to C4A HSR and C4C HSR. Negligible effects. *Noise*[b] Category 2 receivers: 15,549 acres Category 3 receivers: 179 facilities *Vibration* Category 2 receivers: 9,566 acres Category 3 receivers: 35 facilities	Highest amount of noise- and vibration-sensitive land uses as compared to C4A HSR and C4B HSR. Moderate effects. *Noise*[b] Category 2 receivers: 22,799 acres Category 3 receivers: 256 facilities *Vibration* Category 2 receivers: 12,387 acres Category 3 receivers: 44 facilities	Highest amount of noise- and vibration-sensitive land uses as compared to S6 HrSR and S6 HSR. Moderate effects. *Noise*[b]: Category 2 receivers: 8,753 acres Category 3 receivers: 62 facilities *Vibration* Category 2 receivers: 2,181 acres Category 3 receivers: 17 facilities	Lowest amount of noise- and vibration-sensitive land uses as compared to S4 HrSR. S6 HSR affects more receivers than S6 HrSR; however, both would have negligible effects. *Noise*[b]: Category 2 receivers: 687 acres Category 3 receivers: 1 facility *Vibration* Category 2 receivers: 172 acres Category 3 receivers: 0 facilities	*Noise*[b]: Category 2 receivers: 1,586 acres Category 3 receivers: 3 facilities *Vibration* Category 2 receivers: 240 acres Category 3 receivers: 0 facilities
Solid Waste Disposal	No Effect	Negligible effects to landfills.	Landfills present in the counties in the EIS Study Area affected by the alternatives would experience negligible effects.					
Natural Ecological Systems and Wildlife	No Effect	54% non-developed land covers. Negligible effects during construction and operation. Wildlife corridors and assemblages outside of proposed route. Negligible effects during construction and moderate effects during	62% non-developed land covers. Substantial effects during construction and moderate effects during operation. Wildlife corridors and assemblages potentially associated with	64% non-developed land covers. Substantial effects during construction and moderate effects during operation. Wildlife corridors and assemblages potentially associated with	62% non-developed land covers. Substantial effects during construction and moderate effects during operation. Wildlife corridors and assemblages potentially associated with	68% non-developed land covers. Moderate effects during construction and operation. No reported wildlife corridors or assemblages. Negligible effects during construction and operation.	92% non-developed land covers. Substantial effects during construction and moderate effects during operation. No reported wildlife corridors or assemblages or sensitive plant communities. Negligible to moderate effects. There is higher potential for effects from HSR than HrSR because HSR noise and vibration would travel farther than that generated by HrSR. 21% of EIS Study Area composed of higher ecological value land coverage. Substantial	

Resources	Alternatives							
	No Build Alternative	N4A CONV	C4A HSR	C4B HSR	C4C HSR	S4 HrSR	S6 HrSR	S6 HSR
		operation. 10% of EIS Study Area composed of higher ecological value land coverage. Alignment would not likely be fenced, making wildlife movement vulnerable to increased risk for strikes from additional rail traffic. Negligible effects during construction and operation.	proposed route. Sensitive plant communities. Substantial effects during construction and moderate effects during operation. 18% of EIS Study Area composed of higher ecological value land coverage. Substantial effects during construction and moderate effects during operation.	proposed route. Sensitive plant communities. Substantial effects during construction and moderate effects during operation. 18% of EIS Study Area composed of higher ecological value land coverage. Substantial effects during construction and moderate effects during operation.	proposed route. Sensitive plant communities. Substantial effects during construction and moderate effects during operation. 15% of EIS Study Area composed of higher ecological value land coverage. Substantial effects during construction and moderate effects during operation.	15% of EIS Study Area composed of higher ecological value land coverage. Substantial effects during construction and moderate effects during operation.	effects during construction and operation.	
Wetlands	No Effect	Wetlands and other waterbodies are present in the EIS Study Area and would experience negligible effects. Waterbodies: 537 waterbodies; 103 acres; 317,365 linear feet. Wetlands: 271 wetlands; 363 acres.	More waterbodies and wetlands than C4B HSR, but fewer than C4C HSR. Moderate effects. Waterbodies: 700 waterbodies; 153 acres; 316,909 linear feet. Wetlands: 349 wetlands; 312 acres.	Fewest waterbodies and wetlands compared to C4A HSR and C4C HSR. Moderate effects. Waterbodies: 650 waterbodies; 99 acres; 293,669 linear feet. Wetlands: 309 wetlands; 181 acres.	Most waterbodies and wetlands compared to C4A HSR and C4B HSR. Moderate effects. Waterbodies: 850 waterbodies; 164 acres; 400,363 linear feet. Wetlands: 391 wetlands; 345 acres.	Most waterbodies and wetlands compared to S6 HrSR and S6 HSR. Moderate effects. Waterbodies: 443 waterbodies; 74 acres; 247,448 linear feet. Wetlands: 189 wetlands; 142 acres.	Fewest water bodies and wetlands compared to S4 HrSR. Moderate effects. Waterbodies: 255 waterbodies; 29 acres; 120,488 linear feet. Wetlands: 83 wetlands; 57 acres.	
Threatened and Endangered Species	No Effect	Sensitive plant species: Potential occurrences of sensitive plant species. Moderate effects during construction and	Sensitive plant species: Potential occurrences of sensitive plant species. Moderate effects during	Sensitive plant species: Potential occurrences of sensitive plant species. Moderate effects during	Sensitive plant species: Potential occurrences of sensitive plant species. Moderate effects during	Sensitive plant species: Federally listed and other sensitive plant species. Substantial	Sensitive plant species: Potential occurrences of sensitive plant species. Moderate effects during construction and operation. Sensitive wildlife species. Federally listed and other sensitive wildlife species. Moderate effects	

Resources	Alternatives							
	No Build Alternative	N4A CONV	C4A HSR	C4B HSR	C4C HSR	S4 HrSR	S6 HrSR	S6 HSR
		operation. Sensitive wildlife species: Federally listed and other sensitive wildlife species. Moderate effects during construction and operation. Habitat: Potential occurrences of habitat corresponding to sensitive plants and wildlife species. Moderate effects during construction and operation.	construction and operation. Sensitive wildlife species: Federally listed and other sensitive wildlife species. Substantial effect during construction and moderate effect during operation. Habitat: Potential occurrences of habitat corresponding to sensitive plants and wildlife species. Moderate effects during construction and operation.	construction and operation. Sensitive wildlife species: Federally listed and other sensitive wildlife species. Substantial effect during construction and moderate effect during operation. Habitat: Potential occurrences of habitat corresponding to sensitive plants and wildlife species. Moderate effects during construction and operation.	construction and operation. Sensitive wildlife species: Federally listed and other sensitive wildlife species. Substantial effect during construction and moderate effect during operation. Habitat: Potential occurrences of habitat corresponding to sensitive plants and wildlife species. Moderate effects during construction and operation.	effects during construction and moderate effects during operation. Sensitive wildlife species: Federally listed and other sensitive wildlife species. Substantial effects during construction and moderate effects during operation. Habitat: Potential occurrences of habitat corresponding to sensitive plants and wildlife species. Moderate effects during construction and operation.	during construction and operation. Potential occurrences of habitat corresponding to sensitive plants and wildlife species. Moderate effects during construction and operation.	
Flood Hazards and Floodplain Management	No Effect	Floodplains and floodways are present in the EIS Study Area and would experience negligible effects. Floodplains: 2,005 acres Floodways: 410 acres	More floodplains and floodways than C4B HSR, but fewer than C4C HSR. Negligible effects. Floodplains: 2,212 acres Floodways: 815 acres	Fewest floodplains and floodways. Negligible effects. Floodplains: 2,193 acres Floodways: 582 acres	Most floodplains and floodways. Negligible effects. Floodplains: 2,691 acres Floodways: 961 acres	Cannot compare against S6 HrSR and S6 HSR because of data constraints. Negligible effects. Floodplains: 3,011 acres Floodways: 4 acres	National Flood Hazard Layer data missing for much of EIS Study Area. Negligible effects (based upon comparison of floodplain and floodway acreage). Floodplains: 453 acres, based on limited data Floodways: 12 acres, based on limited data	

Resources	Alternatives							
	No Build Alternative	N4A CONV	C4A HSR	C4B HSR	C4C HSR	S4 HrSR	S6 HrSR	S6 HSR
Coastal Zone Management	No Effect	Not applicable because there are no coastal zone management areas.				10 miles of alignment in Nueces County Coastal Management Zone. Negligible effects.	Not applicable because there are no coastal zone management areas.	
Energy	No Effect	Negligible adverse effects during construction and negligible beneficial effects during operation. Annual energy savings: 114,000 MBTUs	Substantial adverse effects during construction, and substantial beneficial effects during operation. Annual energy savings: 1,812,892 MBTUs	Substantial adverse effects during construction, and substantial beneficial effects during operation. Annual energy savings: 2,264,999 MBTUs	Substantial adverse effects during construction, and substantial beneficial effects during operation. Annual energy savings: 1,413,391 MBTUs	Moderate adverse effects during construction and moderate beneficial effects during operation. Annual energy savings: 229,024 MBTUs	Moderate adverse effects during construction and moderate beneficial effects during operation. Annual energy savings: 295,143 MBTUs	Substantial adverse effects during construction and substantial beneficial effects during operation. Annual energy savings: 398,507 MBTUs
Utilities[c]	No Effect	361 utility crossings. Negligible effects.	424 utility crossings. Substantial effects	315 utility crossings. Substantial effects.	744 utility crossings. Substantial effects.	847 utility crossings. Moderate effects.	84 utility crossings. Moderate effects.	84 utility crossings. Moderate effects.
Geologic Resources[d]	No Effect	Geologic risks could be avoided or minimized by meeting building standards. Moderate effects from geologic hazards. No change in access to, or reduction of, high-value minerals. Negligible effects on mineral resources.	Risks associated with geologic hazards could be avoided or minimized by meeting building standards. Moderate effects from geologic hazards. None of the alternatives would affect access or availability of high-value minerals. Negligible effects on mineral resources.					
Aesthetics and Visual Quality	No Effect	49 miles of the alignment near sensitive viewers. 46 miles would have negligible effects, 1 mile, would have moderate effects, and 2 miles would have substantial effects. The	47 miles of the alignment near sensitive viewers. 0 miles would have negligible effects, 36 miles would have moderate effects, and 11 miles would have substantial	49 miles of the alignment near sensitive viewers. 0 miles would have negligible effects, 36 miles would have moderate effects, and 13 miles would have substantial	62 miles of the alignment near sensitive viewers. 0 miles would have negligible effects, 51 miles would have moderate effects, and 11 miles would have substantial	50 miles of the alignment near sensitive viewers. 36 miles would have negligible effects, 6 miles would have moderate effects, and 8 miles would have substantial	18 miles of the alignment near sensitive viewers. 0 miles would have negligible effects, 16 miles would have moderate effects, and 2 miles would have substantial effects. Overall, the effect of S6	18 miles of the alignment near sensitive viewers. S6 HSR would affect more sensitive viewers than S6 HrSR. 0 miles would have

Resources	Alternatives							
	No Build Alternative	N4A CONV	C4A HSR	C4B HSR	C4C HSR	S4 HrSR	S6 HrSR	S6 HSR
		overall effect would be negligible.	effects. Overall, the effect of C4A HSR would be substantial.	effects. Overall, the effect of C4B HSR would be substantial.	effects. Overall, the effect of C4C HSR would be substantial.	effects. Overall, the effect of S4 HrSR would be moderate.	HrSR would be moderate.	negligible effects, 0 miles would have moderate effects, and 18 miles would have substantial effects. Overall, the effect of S6 HSR would be substantial.
Land Use and Prime Farmlands	No Effect	Land use: High land use compatibility. Negligible effects. Prime Farmland: 6,140 acres of prime farmland. Low potential prime farmland conversion and bisection. Negligible effects.	Land use compatibility: Medium land use compatibility. Moderate effects. Prime farmland: 10,440 acres. Moderate effects.	Land use compatibility: Medium land use compatibility. Moderate effects. Prime farmland: 10,440 acres. Moderate effects.	Land use Compatibility: Low land use compatibility. Moderate effects. Prime farmland: 10,217 acres. Substantial effects.	Land use Compatibility: Low land use compatibility. Moderate effects. Prime farmland: 10,217 acres. Substantial effects.	Land use Compatibility: Medium land use compatibility. Substantial effects. Prime farmland: 12,435 acres. Substantial effects.	
Environmental Justice and Socioeconomics	No Effect	Socioeconomics: Negligible effects. Environmental Justice: Negligible effects.	Environmental Justice: Moderate effects. Socioeconomics: Moderate effects.			Environmental Justice: Substantial effects. Socioeconomics: Moderate effects.		
Public Health	No Effect	Negligible (adverse) effects relating to air quality during construction. Negligible (benefit) long-term effects relating to air quality during operation. Negligible effects relating to groundwater and hazardous materials.	Moderate (adverse) effects during construction related to air quality. Negligible (benefit) long-term effects relating to air quality during operation. Negligible effects relating to groundwater and hazardous materials.			Moderate (adverse) effects during construction related to air quality. Moderate (adverse) long-term regional effects during operation associated with diesel trains and vehicles idling near high concentrations of	Moderate (adverse) effects during construction related to air quality. Negligible (adverse) long-term regional effects during operation. Negligible effects relating to groundwater and hazardous materials.	Moderate (adverse) effects during construction related to air quality. Negligible (benefit) long-term regional effects during operation. Negligible effects relating to groundwater and hazardous materials.

Resources	Alternatives							
	No Build Alternative	N4A CONV	C4A HSR	C4B HSR	C4C HSR	S4 HrSR	S6 HrSR	S6 HSR
						sensitive populations. Negligible effects relating to groundwater and hazardous materials.		
Public Safety and Hazardous Materials	No Effect	Public Safety: Improved crossing safety over No Build Alternative but continued collision risk associated with crossings. Negligible effects. Hazardous Materials: 8 sites. Negligible effects.	Public Safety: Improved crossing safety over No Build Alternative. No at-grade crossings and no associated collision risk. Negligible effects. Hazardous Materials: 9 sites. Moderate effects.			Public Safety: Improved crossing safety over No Build Alternative. No at-grade crossings and no associated collision risk. Negligible effects. Hazardous Materials: 8 sites. Moderate effects.	Public Safety: Improved crossing safety over No Build Alternative. No at-grade crossings and no associated collision risk. Negligible effects. Hazardous Materials: 12 sites. Moderate effects.	Public Safety: Improved crossing safety over No Build Alternative. No at-grade crossings and no collision risk. Negligible effects. Hazardous Materials: 0 sites. Negligible effects.
Recreational Areas and Opportunities[e]	No Effect	Negligible effects from construction activities and property acquisition. 56 recreational resources.	More recreational resources than C4B HSR, but fewer than C4C HSR. Substantial effects from construction activities and property acquisition. 57 recreational resources: 28 in urban, 17 in suburban, 12 in rural areas.	Fewest recreational resources compared to C4A HSR and C4C HSR. Substantial effects from construction activities and property acquisition. 51 recreational resources: 28 in urban, 15 in suburban, 8 in rural areas.	Most recreational resources compared to C4A HSR and C4B HSR. Substantial effects from construction activities and property acquisition. 62 recreational resources: 33 in urban, 17 in suburban, 12 in rural areas.	Highest number of recreational resources compared to S6 HrSR and S6 HSR but effects reduced because of greater use of existing rail right-of-way. Moderate effects from construction activity and property acquisition. 54 recreational resources: 38 in urban, 4 in suburban, 12 in rural areas.	Fewest number of recreational resources compared to S4 HrSR. Negligible effects from construction activity and property acquisition. 3 recreational resources: 1 in urban, 0 in suburban, 2 in rural areas.	

Resources	Alternatives							
	No Build Alternative	N4A CONV	C4A HSR	C4B HSR	C4C HSR	S4 HrSR	S6 HrSR	S6 HSR
Historic Resources[e]	No Effect	Moderate effects from acquisition or rehabilitation, restoration, or expansion of existing railroad-related historic resources. 35 known NRHP-listed, NRHP-eligible, or potentially NRHP-eligible historic resources.	More known NRHP-listed, NRHP-eligible, or potentially NRHP-eligible historic resources than C4B HSR, but fewer than C4C HSR. Substantial effects from acquisition or rehabilitation, restoration, or expansion of existing railroad-related historic resources. 45 known NRHP-listed, NRHP-eligible, or potentially NRHP-eligible historic resources.	Fewest known NRHP-listed, NRHP-eligible, or potentially NRHP-eligible historic resources compared to C4A HSR and C4C HSR. Substantial effects from acquisition or rehabilitation, restoration, or expansion of existing railroad-related historic resources. 38 known NRHP-listed, NRHP-eligible, or potentially NRHP-eligible historic resources.	Most known NRHP-listed, NRHP-eligible, or potentially NRHP-eligible historic resources compared to C4A HSR and C4B HSR. Substantial effects from acquisition or rehabilitation, restoration, or expansion of existing railroad-related historic resources. 52 known NRHP-listed, NRHP-eligible, or potentially NRHP-eligible historic resources.	Most known NRHP-listed, NRHP-eligible, or potentially NRHP-eligible historic resources compared to S6 HrSR and S6 HSR. Moderate effects from acquisition or rehabilitation, restoration, or expansion of existing railroad-related historic resources. 36 known NRHP-listed, NRHP-eligible, or potentially NRHP-eligible historic resources.	No known NRHP-listed, NRHP-eligible, or potentially NRHP-eligible historic resources. Negligible effects.	
Archaeological Resources[e]	No Effect	Moderate effects from demolition or disturbance of resources. 1 NRHP-eligible site and 14 undetermined eligible archaeological sites.	More identified sites than C4B HSR, but fewer than C4C HSR. Substantial effects from disturbance or demolition of resources. 1 NRHP-eligible site and 25 undetermined eligible archaeological sites.	Fewest identified sites compared to C4A HSR and C4C HSR. Substantial effects from disturbance or demolition of resources. 2 NRHP-eligible sites and 18 undetermined eligible archaeological sites.	Most identified sites compared to C4A HSR and C4B HSR. Substantial effects from disturbance or demolition of resources. 1 NRHP-eligible site and 26 undetermined eligible archaeological sites.	Most identified sites compared to S6 HrSR and S6 HSR. Moderate effects. 1 NRHP-eligible site and 20 undetermined eligible archaeological sites.	Moderate effects. 0 NRHP-eligible sites and 7 undetermined eligible archaeological sites.	Substantial effects. 0 NRHP-eligible sites and 7 undetermined eligible archaeological sites.
Section 4(f)/Section 6(f)	No Effect	65 Section 4(f) properties and 3 Section 6(f) properties	64 Section 4(f) properties and 3 Section 6(f) properties in the EIS Study Area. All of the Central Section alternatives are likely to result in a potential use of Section 4(f) resources. Design refinements to			62 Section 4(f) properties and 2 Section 6(f) properties in the S4 HrSR Study Area. 1 Section 4(f) property and 0 Section 6(f) properties in the S6 HrSR and HSR study areas. Southern Section alternatives may avoid		

Resources	Alternatives							
	No Build Alternative	N4A CONV	C4A HSR	C4B HSR	C4C HSR	S4 HrSR	S6 HrSR	S6 HSR
		in the EIS Study Area. The alternative may avoid Section 4(f) resources by remaining inside existing rail or transportation right-of-way.	avoid specific Section 4(f) properties and/or to minimize harm will be addressed at the project level.			Section 4(f) resources by remaining inside existing rail or transportation right-of-way or by implementing variations of the evaluated alternatives at the project-level that would traverse areas where no Section 4(f) resources have been identified.		
Travel Demand and Transportation	No Effect	Effects on Transit Providers: 50% and 44% of bus and air passengers would be diverted to rail, respectively. This would have substantial (negative) effects on both bus and air service providers. Change in VMT: Negligible (beneficial) effects. 0.6% reduction in VMT. Potential secondary beneficial effect (reduced congestion) to bus service providers.	Effects on Transit Providers: 22% and 68% of bus and air passengers would be diverted to rail, respectively. Resulting in moderate and substantial effects on bus and air service providers, respectively. Change in VMT: Substantial (beneficial) effects. 8.6% reduction in VMT. Potential secondary beneficial effect (reduced congestion) to bus service providers. For air carriers the potential benefits may include the opportunity to shift from short-haul to longer-haul flight operations, which may include more	Effects on Transit Providers: 23% and 70% of bus and air passengers would be diverted to rail, respectively. Resulting in moderate and substantial effects on bus and air service providers, respectively. Change in VMT: Substantial (beneficial) effects. 9% reduction in VMT. Potential secondary beneficial effect (reduced congestion) to bus service providers. For air carriers the potential benefits may include the opportunity to shift from short-haul to longer-haul flight operations, which may include more	Effects on Transit Providers: 21% and 62% of bus and air passengers would be diverted to rail, respectively. Resulting in moderate and substantial effects on bus and air service providers, respectively. Change in VMT: Substantial (beneficial) effects. 7.2% reduction in VMT. Potential secondary beneficial effect (reduced congestion) to bus service providers. For air carriers the potential benefits may include the opportunity to shift from short-haul to longer-haul flight operations, which may include more	Effects on Transit Providers: 23% and 64% of bus and air passengers would be diverted to rail, respectively. Resulting in moderate and substantial effects on bus and air service providers, respectively. Change in VMT: Negligible (beneficial) effects. 0.2% reduction in VMT. Potential secondary beneficial effect (reduced congestion) to bus service providers. For air carriers the potential benefits may include the opportunity to shift from short-haul to longer-haul flight operations, which may include more	Effects on Transit Providers: 9% of bus passengers would be diverted to rail. Resulting in moderate effects on bus service providers. No effect on air carriers. Change in VMT: Negligible (beneficial) effects. 0.4% reduction in VMT. Potential secondary beneficial effect (reduced congestion) to bus service providers.	Effects on Transit Providers: 15% of bus passengers would be diverted to rail, resulting in moderate effects on bus service providers. No effect on air carriers. Change in VMT: Negligible (beneficial) effects. 0.9% reduction in VMT. Potential secondary beneficial effect (reduced congestion) to bus service providers.

Resources	Alternatives							
	No Build Alternative	N4A CONV	C4A HSR	C4B HSR	C4C HSR	S4 HrSR	S6 HrSR	S6 HSR
			reliable scheduling and increased revenue.	reliable scheduling and increased revenue.	reliable scheduling and increased revenue.	reliable scheduling and increased revenue.		

[a] All build alternatives in the Southern Section would have higher GHG emissions in 2035 compared to No Build Alternative, partially due to the conservative assumptions made in the travel demand modelling for the Southern Section. Build alternatives in the Southern Section would have net GHG emission increases compared to No Build Alternative, primarily due to the addition of the new rail transportation mode that did not previously exist in the region. However, the levels of GHG reduction in the Northern and Central Section alternatives are greater than the levels of GHG increases estimated for the Southern Section alternatives. When GHG emissions from the build alternatives in the Northern, Central, and Southern Sections are combined and compared to the combined emissions from the No Build Alternative, the results indicate that the Program would result in a net GHG emission reduction in 2035.

[b] Category 1 noise- and vibration-sensitive land uses are those that are set aside for serenity and quiet, such as outdoor amphitheaters. Category 2 noise- and vibration-sensitive land uses include residences and hotels. Category 3 land uses include churches, schools, recreation areas, and similar land use activities with which noise and vibration could interfere.

[c] The most intense effect for each alternative is presented in the table; however, alternatives may include additional, less intense effects depending on urban or rural locations, density of utilities, and if existing or new track would be constructed.

[d] The most intense effect for each alternative is presented in the table. However, alternatives may include additional, less intense effects depending on specific geologic hazards.

[e] The most intense effect for each alternative is presented in the table. However, some alternatives may include additional less intense effects depending on urban, suburban, or rural locations.

BMP = best management practice
GHG = greenhouse has
MBTU = million British thermal units
NRHP = National Register of Historic Places
VMT = vehicle miles traveled

2.5 Measures to Minimize Harm

The DEIS included best management practices (BMPs), design features, and mitigation strategies that address effects on a broad, service-level scale. Each resource evaluation in Chapter 3 of the DEIS included a list of strategies that would be considered and further developed at the project-level of analysis. Strategies included, but would not be limited to, conceptual avoidance and minimization measures for the next phase of design, suggestions for programmatic agreements, and descriptions of options for replacing or re-establishing the affected resources. Table ROD-4 includes a list of commitments or mitigation measures that would be considered and further developed at the project level of analysis.

Table ROD-4: Avoidance, Minimization, and Mitigation Measures for Consideration and Further Development at the Project Level

Mitigation ID and Reference	Potential Effect	Avoidance, Minimization, and Mitigation Measures for Consideration and Further Development at the Project Level
Air Quality (AQ) Section 3.1		
AQ-01 DEIS Section 3.1.5.1	Temporary, short-term emissions increases associated with construction activities	▪ Use of low-emission vehicles during construction, and/or use of newer and well-maintained equipment ▪ Effects from concrete and asphalt batch plants would be limited by placing these facilities away from sensitive populations, such as those found at schools, hospitals, and residences, to the extent possible ▪ Potential fugitive dust effects would be mitigated through BMPs such as water sprays during demolition; wetting, paving, or landscaping exposed earth areas; covering dust-producing materials during transport; limiting dust-producing construction activities during high wind conditions; and providing street sweeping and tire washes for trucks leaving the site ▪ Traffic congestion emissions can be reduced using site-specific traffic management plans (TMPs); temporary signage and other traffic controls; designated staging areas, worker parking lots (with shuttle bus service if necessary), and truck routes; and prohibition of

Mitigation ID and Reference	Potential Effect	Avoidance, Minimization, and Mitigation Measures for Consideration and Further Development at the Project Level
		construction vehicle travel during peak traffic periods ▪ Localized air pollutant increases associated with traffic near construction sites would be addressed by mitigation strategies discussed further on in this table under table Section 3.20, Travel Demand and Transportation, as well as by implementing enhanced accessibility and signal design practices
AQ-02 DEIS Section 3.1.5.2	Emissions from diesel trains	▪ Use Tier 4 diesel locomotive engines ▪ Implement additional measures to reduce diesel locomotive idling times ▪ Locate tracks, stations, and other supporting facilities away from populated areas and sensitive receptors
AQ-03 FEIS Section 3.1.7.3	Climate effects	▪ Review the latest climate science trends for any applicable updates to the projections and/or trends ▪ Undertake targeted modelling of site-specific riverine and coastal flood potential ▪ Undertake joint probability riverine and coastal flood analysis ▪ Consider additional interim sea level rise scenarios (e.g., between 1 foot and 6 feet) to better quantify the timing of the risk and prioritization of improvements ▪ Consider increasing levels of coastal storm surge intensity (as the science progresses), or larger coastal storm surge events (e.g., 500-year event) ▪ Incorporate adaptation considerations into design to minimize risk exposure and increase ability to recover from extreme events ▪ Incorporate consideration of adaptation costs (i.e., more resilient infrastructure) as well as increased maintenance costs and service disruptions associated with likely increased flooding and extreme heat effects

Mitigation ID and Reference	Potential Effect	Avoidance, Minimization, and Mitigation Measures for Consideration and Further Development at the Project Level
Water Quality (WQ) Section 3.2		
WQ-01 DEIS Section 3.2.5	Erosion, sedimentation, and runoff during construction	▪ Erosion – Phasing and construction sequencing – Temporary seeding of cleared areas – Mulching – Erosion control blankets – Reinforced matting ▪ Sedimentation – Hay bales, silt fences, dikes, and baffles – Stabilized construction access – Controlled temporary stock pile areas ▪ Runoff – Runoff diversion measures – Level spreaders – Subsurface drains
WQ-02 DEIS Section 3.2.5	Runoff and water quality effects during operation	▪ Use of wet and dry retention/detention ponds, vegetated swales and conveyance systems, adequate buffers around or adjacent to water resources and systems (e.g., streams, lakes, ponds, stormwater runoff, groundwater recharge areas, and erodible soils) ▪ Use of most up-to-date industry standards for addressing water quality (e.g., porous surfacing and pavement)
Noise and Vibration (NV) Section 3.3		
NV-01 DEIS Section 3.3.5	Construction noise	▪ Require noise control measures to ensure compliance with all federal and local guidelines and noise limits
NV-02 DEIS Section 3.3.5	Operation noise	▪ Locate the alignment far away from noise-sensitive receivers ▪ Adjust the vertical and horizontal alignments ▪ Construct noise barriers, including sound walls and vegetative buffers, and alter property rights for construction of noise barriers ▪ Use noise berms ▪ Create noise buffer areas

Mitigation ID and Reference	Potential Effect	Avoidance, Minimization, and Mitigation Measures for Consideration and Further Development at the Project Level
		▪ Sound insulate buildings ▪ Implement operational controls, such as reducing train horn noise in compliance with the Quiet Zone requirements in FRA's whistle ban regulation in the Train Horn Rule (49 CFR Part 222)
NV-03 DEIS Section 3.3.5	Construction vibration	▪ Select and use equipment and construction techniques that produce the least vibration
NV-04 DEIS Section 3.3.5	Operation vibration	▪ Use operational controls, such as restricting vibration-inducing activities to locations that have no potentially affected receivers or restricting vibration-inducing activities to less-sensitive times of day ▪ Use highly resilient rail fasteners which fasten the rail line to the rail tie and reduces vibration ▪ Use design features such as thick slabs in tunnels and floating slabs or rail ties that reduce vibration
Solid Waste Disposal (SWD) Section 3.4		
SWD-01 DEIS Section 3.4.5	Construction waste generation	▪ Divert construction and demolition waste from landfills by reusing or recycling to reduce the amount of solid waste generated ▪ Segregate and/or recycle the waste at an appropriately permitted recycling facility or contract with an authorized agent to collect unsegregated waste and recycle at a permitted recycling facility in compliance with federal, state, and local regulations
Natural Ecological Systems and Wildlife (NESW) Section 3.5		
NESW-01 DEIS Section 3.5.5	Disturbance of terrestrial and aquatic habitats and wildlife during construction	▪ Design routes outside existing transportation corridors with alternative pathways or undercrossings to maintain wildlife migratory paths or corridors ▪ Follow local ordinances for erosion, sediment, and stormwater controls during construction
NESW-02 DEIS Section 3.5.5	Disturbance of wildlife during operation	▪ Construct multiple and varying crossing structures at wildlife crossing points to provide connectivity for species likely to use a given area

Mitigation ID and Reference	Potential Effect	Avoidance, Minimization, and Mitigation Measures for Consideration and Further Development at the Project Level
		▪ Determine and construct the appropriate number, spacing, and location of wildlife crossing structures based on species-specific information ▪ Monitor structures for obstructions, such as detritus or silt blockages, that impede wildlife movement ▪ Manage human activity near wildlife crossing structures, with measures such as fencing and signage
Wetlands (WL) Section 3.6		
WL-01 DEIS Section 3.6.5	Construction effects on waters of the U.S.	▪ Route selection and route adjustments ▪ Temporary work space siting during design iterations ▪ Demarcate wetlands outside the construction corridor as “no work zones” ▪ Co-location of the proposed Program alternative with previously disturbed construction areas ▪ Use construction methods that limit temporary workspace through waters of the U.S ▪ Topsoil segregation and replacement in temporarily excavated wetlands ▪ Expedite construction in and around wetlands ▪ Store fuel, lubricant, and hazardous material or locate of equipment refueling areas outside waters of the U.S. boundaries ▪ ROW inspections during and after construction ▪ Repair of erosion control or restoration features as necessary until permanent re-vegetation is successful ▪ Restore waters of the U.S. to the original contours and flow regimes to the extent practical ▪ Promote natural revegetation through the available topsoil seed bank ▪ Follow the 2008 U.S. Environmental Protection Agency and U.S. Army Corps of Engineers Wetland Compensatory Mitigation Rules (33 CFR Parts 325 and 332, 40 CFR Part 230) emphasizing a watershed-level approach to compensation where impacts on waters of the U.S. are unavoidable. The hierarchy of mitigation preferences is mitigation banks, in-lieu fee programs, and permittee-responsible mitigation

Mitigation ID and Reference	Potential Effect	Avoidance, Minimization, and Mitigation Measures for Consideration and Further Development at the Project Level
Threatened and Endangered Species (TES) Section 3.7		
TES-01 DEIS Section 3.7.5	Disturbance of terrestrial and aquatic habitats and wildlife during construction	▪ Confirm the boundaries of listed plant and wildlife habitat prior to the start of construction to avoid or minimize effects on these areas ▪ Conduct preconstruction surveys and monitoring in advance of clearing, grading, or construction to identify protected nest sites and avoid these areas until nesting has completed ▪ Implement seasonal restrictions on construction work during key breeding, nesting, migration, and growth periods to protect individual species ▪ Provide for the mitigation of project areas by improving marginal habitats or creating mitigation banks at key locations within the affected watersheds and habitat ranges, as necessary
TES-02 DEIS Section 3.7.5	Disturbance of wildlife during operation	▪ Construct multiple and varying wildlife crossing structures at crossing points to provide connectivity for species likely to use a given area ▪ Construct at least one wildlife crossing structure within an individual's home range and where suitable habitat for species occurs (if possible) on both sides of the crossing structure ▪ Monitor structures for obstructions, such as detritus or silt blockages, that impede wildlife movement ▪ Manage human activity near wildlife crossing structures with the use of fencing, signage, etc.
Flood Hazards and Floodplain Management (FHFM) Section 3.8		
FHFM-01 DEIS Section 3.8.5	Effects on floodplains during construction	▪ Create temporary diversion channels capable of handling a flood event ▪ Create coffer dams (or other temporary work structures) so as not to create a rise in downstream or upstream flood levels ▪ Limit construction during the rainy season ▪ Minimize the amount of soil and vegetation disturbance during construction

Mitigation ID and Reference	Potential Effect	Avoidance, Minimization, and Mitigation Measures for Consideration and Further Development at the Project Level
		▪ Maintain vegetative buffers between project work and the flooding source (Association of State Floodplain Managers)
FHFM-02 DEIS Section 3.8.5	Effects on floodplains during operation	▪ Maximize the spans of bridges and box culverts to reduce the amount of fill material at the approach. Where feasible—and as part of TxDOT (TxDOT 2004), ODOT (ODOT 2009), and rail design standards (BNSF/UPRR 2007)—new stream crossings should take into consideration the 100-year flow and provide hydrologic connectivity to the adjacent watercourses. Hydrologic modeling would be used to confirm flood capacities are maintained and floodplain extents and depths would not affect previously unaffected properties adjacent to the EIS Study Area. ▪ Provide compensatory flood storage in other Program areas ▪ Minimize the amount of upstream and downstream channelization ▪ Elevate new construction above the 100-year floodplain ▪ Provide flood openings in new construction ▪ Provide channel training in areas of ephemeral or intermittent flow
Coastal Zone Management (CZM) Section 3.9		
CZM-01 DEIS Section 3.9.5	Pollution of coastal zone management areas during construction (applicable only to Alternative S4 HrSR)	▪ Use water pollution prevention measures (refer to measures in WQ01 above)
CZM-02 DEIS Section 3.9.5	Pollution of coastal zone management areas during operation (applicable only to Alternative S4 HrSR)	▪ Use water pollution prevention measures (refer to measures in WQ01 above) ▪ Keep development within the existing railroad ROW to the extent possible and avoid filling within the CZM beyond current fills. A potential exception could be any filling associated with the modification or replacement

Mitigation ID and Reference	Potential Effect	Avoidance, Minimization, and Mitigation Measures for Consideration and Further Development at the Project Level
		of the bridge crossing Oso Creek. ▪ Locate additional required ROWs adjacent to existing transportation facilities and ROWs. Access to the project or local traffic circulation would use the existing roadway network. Avoid impounding or draining coastal wetlands to the extent possible. ▪ Implement standard train safety protocols to minimize risk of coastal resources being affected by spills associated with train derailment
Use of Energy Resources (UER) Section 3.10		
UER-01 DEIS Section 3.10.5	Energy consumption during construction	▪ Use energy-saving equipment and facilities to reduce electricity demand ▪ Develop and implement a construction energy conservation plan ▪ Locate construction material production facilities onsite or within proximity to the project site ▪ Use newer and more energy-efficient construction vehicles ▪ Implement a program to encourage construction workers to carpool or use public transportation for travel to and from the construction site
Utilities (UT) Section 3.11		
UT-01 DEIS Section 3.11.5	Utility conflicts during construction	▪ Involve utility operators/owners during preliminary design ▪ Relocate utilities outside of the alignments ▪ Develop relocation and construction phasing plans around peak usage hours to minimize utility disruptions ▪ Make adjustments to the rail alignments and profiles to avoid major utility lines or facilities ▪ During final design, consult with each utility provider/owner to avoid or reduce potential impacts on existing and planned utilities through design refinements

Mitigation ID and Reference	Potential Effect	Avoidance, Minimization, and Mitigation Measures for Consideration and Further Development at the Project Level
UT-02 DEIS Section 3.11.5	Utility conflict during operation	▪ Provide insulation against electromagnetic interference ▪ Where new alignments would cross existing utilities, encase the utilities in strong culverts or conduits to prevent damage
Geologic Resources (GEO) Section 3.12		
GEO-01 DEIS Section 3.12.5	Geologic- and soil-related hazards	▪ Implement engineering standards in accordance with local requirements or industry standards, including the International Building Code ▪ Prepare and implement erosion and sediment control plans
Aesthetic and Visual Resources (AVR) Section 3.13		
AVR-01 DEIS Section 3.13.5	Visual disruption during construction	▪ Minimize pre-construction clearing ▪ Limit the removal of buildings to those that would obstruct project components ▪ When possible, preserve existing vegetation, particularly vegetation along the edge of construction areas that may help screen views ▪ Regrade areas disturbed by construction, staging, and storage to original contours and revegetate with plant material similar in numbers and type after construction ▪ Avoid locating construction staging sites within immediate foreground distance (0 to 500 feet) of the sensitive-viewer types ▪ Minimize light disturbance during construction so that the lighting will be shielded and directed downward
AVR-01 DEIS Section 3.13.5	Visual disruptions during operation	▪ Develop and apply specific design guidelines applicable to major design features, while taking into account the surrounding visual quality ▪ Minimize visual disruption by screening elevated guideways adjacent to residential areas ▪ Establish consultation with local jurisdictions to identify and integrate local design features into the key project features and future station designs through a collaborative, context-sensitive solutions approach ▪ Where appropriate, plant trees along the edges of the

Mitigation ID and Reference	Potential Effect	Avoidance, Minimization, and Mitigation Measures for Consideration and Further Development at the Project Level
		ROWs in locations adjacent to residential areas ▪ Incorporate fencing or screening in areas with new project features in proximity to sensitive viewers ▪ Include full shielding of all new and replacement lighting features ▪ Incorporate vegetation around structures, columns, and other components associated with the alternatives ▪ Utilize complimentary and consistent colors, patterns, and textures on structures, columns, and noise barriers associated with the alternatives ▪ Incorporate pavement treatments at future stations commensurate with context sensitive solutions ▪ Utilize vegetation (to block access) and surface coatings on alternative components that would be resistant to graffiti and weather ▪ Minimize and mitigate visual disruption from sound barriers by providing surface treatments (color and texture) along with the use of alternate materials (transparent mediums where appropriate)
Land Use and Prime Farmland (LUPF) Section 3.14		
LUPF-01 DEIS Section 3.14.5	Land acquisition	▪ Avoid land use acquisitions through alignment adjustments and design changes ▪ Provide relocation assistance in accordance with the Uniform Relocation and Real Property Acquisition Policies Act of 1970, as amended
Socioeconomics and Environmental Justice (SEJ) Section 3.15		
SEJ-01 DEIS Section 3.15.6	Socioeconomics and environmental justice effects	▪ Consult with local governments and planning agencies, with consideration given to minimizing barrier effects to maintain neighborhood integrity, including grade-separating planned rail lines and streets, new pedestrian crossings, new cross-connection points, improved visual quality of project facilities, and TMP to maintain access during and after construction ▪ Develop design strategies for application at the project level to avoid or minimize the temporary or permanent

Mitigation ID and Reference	Potential Effect	Avoidance, Minimization, and Mitigation Measures for Consideration and Further Development at the Project Level
		acquisition of residential and nonresidential property ▪ Avoid potential displacement and acquisitions (temporary use and/or permanent and nonresidential property) to the extent feasible by considering further alignment adjustments and design changes at the project level ▪ Conduct outreach to affected communities as part of the decision-making process, and this outreach would be documented
SEJ-02 DEIS Section 3.15.6	Temporary construction-related community cohesion effects	▪ Provide opportunities for community involvement early in project-level studies ▪ Conduct design workshops within each affected neighborhood to develop an understanding of key vehicle, bicycle, and pedestrian linkages across the rail corridor so that those linkages can be preserved, including the use of grade-separated crossings ▪ Ensure that connectivity (pedestrian/bicycle and vehicular crossings) across the rail corridor is maintained where necessary to maintain neighborhood integrity ▪ Develop a TMP to reduce barrier effects during construction ▪ Maintain connectivity during construction to the extent feasible
Public Safety and Hazardous Materials (PSHM) Section 3.16		
PSHM-01 DEIS Section 3.16.5	Public safety and security risks	▪ Develop a construction health and safety plan to limit risks to human health ▪ Implement a construction transportation plan that includes traffic control measures to address temporary road closures, provisions for detours, alternative routes, and procedures for coordination with emergency service providers ▪ Implement construction site security measures, such as securing equipment and materials after hours in locked storage areas and use of security personnel

Mitigation ID and Reference	Potential Effect	Avoidance, Minimization, and Mitigation Measures for Consideration and Further Development at the Project Level
		▪ Implement operational security measures, such as access control and security monitoring systems ▪ Follow safety design standards for track and roadway design ▪ Comply with federal and state rules for rail vehicular movements, such as ROW fencing, use of contemporary signaling, Positive Train Control systems, and adequate clearance between parallel passenger and freight rail tracks ▪ Incorporate engineering safety measures and BMPs for at-grade and grade-separated rail crossings in accordance with federal and state regulations ▪ Implement standard safety precautions at stations, such as textured warning strips along platform edges, properly designed lighting, adequate platform depth to allow passengers to stand away from active tracks, and grade separated pedestrian crossings of rail tracks. Other station improvements that promote safety may include designating pedestrian and vehicle spaces and adding passenger pick-up and drop-off zones. ▪ Maintain adequate separation between adjacent passenger and freight rail tracks to prevent derailed trains from entering the adjacent rail trackway. Include physical barriers, such as crash walls, in areas where adequate physical separation cannot be attained. These types of design features would follow the design and safety standards and recommended practices in the 2014 Manual for Railway Engineering (American Railway Engineering and Maintenance-of-Way Association 2014) and federal Track Safety Standards (49 CFR Part 213). ▪ Coordinate with emergency responders to incorporate roadway modifications that maintain existing traffic patterns and fulfill response route needs ▪ Develop and implement an emergency response plan in the event of an act of terrorism, natural disasters, and other emergencies

Mitigation ID and Reference	Potential Effect	Avoidance, Minimization, and Mitigation Measures for Consideration and Further Development at the Project Level
		▪ Develop and implement a safety and security plan for services in sealed corridors, such as high-speed rail, where access is limited by fencing or on viaducts (e.g., Dallas to Houston)
PSHM-02 DEIS Section 3.16.5	Construction effects related to hazardous materials	▪ Use construction safety procedures, equipment stockpiling methods, material handling plans, and solid waste management procedures that protect human health and the environment and minimize hazardous materials releases during construction ▪ Develop specific environmental health and safety plans and procedures that protect construction workers, surrounding communities, and the environment ▪ Develop and implement a spill prevention, control, and countermeasure plan to handle potential hazardous material spills ▪ Develop and implement a soil and material handling plan in the event that undocumented contamination is encountered ▪ Use personal protection, workplace monitoring, alternative designs, and evaluation of construction methods that limit the effect from contaminated materials ▪ Follow applicable federal and state regulations for removal and disposal of hazardous materials, such as asbestos or lead-based paint, if such materials are encountered during building or structure renovation or demolition
Recreational Areas and Opportunities (RAO) Section 3.17		
RAO-01 DEIS Section 3.17.5	Effects on recreational areas during construction	▪ Minimize generation of dust and debris ▪ Avoid recreational resources ▪ Use detours (for pedestrians, bicycles, and vehicles) and provide partial access to recreational resources ▪ Recreational resource enhancements ▪ Potential land replacement for long-term adverse effects

Mitigation ID and Reference	Potential Effect	Avoidance, Minimization, and Mitigation Measures for Consideration and Further Development at the Project Level
		▪ Preserve public access to, and function of, remaining park areas during construction ▪ Implement context-sensitive design, plantings, vegetative screenings, and sound barriers ▪ Restore resources which are temporarily affected to pre-construction or better conditions ▪ Shift and narrow new ROWs to avoid encroachments on recreation areas
Historic, Architectural, and Non-Archaeological Cultural Resources (HI) Section 3.18		
HI-01 DEIS Section 3.18.5	Potential effects to historical resources during construction	▪ Document the historic property before construction. This may include preparation of Historic American Building Survey or Historic American Engineering Record documentation, NRHP nominations, and/or historic property management and treatment plans. ▪ Use sound barriers, vegetative screening, and landscaping ▪ Develop and disseminate educational materials throughout the Project Area
Archaeological Sites (AS) Section 3.19		
AS-01 DEIS Section 3.19.5	Construction effects on archaeological resources	▪ Coordinate development of a Memorandum of Agreement with Oklahoma and Texas State Historic Preservation Offices (SHPOs), Native American tribes, and other interested parties, as appropriate ▪ Coordinate development of a Programmatic Agreement with the FRA, TxDOT, ODOT, and Oklahoma and Texas SHPOs ▪ Develop an Archaeological Sites Monitoring and Treatment Plan or an Unanticipated Discovery Plan that would guide archaeological monitoring work during construction

Mitigation ID and Reference	Potential Effect	Avoidance, Minimization, and Mitigation Measures for Consideration and Further Development at the Project Level
Travel Demand and Transportation (TDT) Section 3.20		
TDT-01 DEIS Section 3.20.5	Transportation effects during construction	Preparation and implementation of a TMP in accordance with the Manual on Uniform Traffic Control Devices (Federal Highway Administration 2009) and all applicable requirements of the local reviewing agency, as appropriate. The TMP could include, but would not be limited to, the following measures: ▪ Prepare temporary traffic control plans for each construction area. The temporary traffic control plans will identify the need for full or partial lane closures, detours, flaggers for directing traffic, temporary signage, lighting, traffic control devices, and other measures, if required. ▪ Identify oversize and overweight load haul routes. Transporters must comply with state and county regulations for transportation of oversized and overweight loads on all state, county, and city roads. Such regulations typically include provisions for time of day, pilot cars, law enforcement escorts, speed limits, flaggers, and warning lights. All material hauling activities shall comply with applicable state and local regulations. ▪ Schedule deliveries of heavy equipment and construction materials during periods of minimum traffic flow and determine the need for construction work hours and arrival and departure times outside peak traffic periods. ▪ Post the approved hours of construction activity at the construction site in a place and manner that can be easily viewed by any interested member of the public. ▪ Identify vehicle safety procedures for entering and exiting site access roads. ▪ Notify and coordinate with emergency responders regarding potential road closures prior to construction. ▪ Provide access for emergency vehicles to and around the project sites.

Mitigation ID and Reference	Potential Effect	Avoidance, Minimization, and Mitigation Measures for Consideration and Further Development at the Project Level
		▪ Maintain access to adjacent properties and transit, bicycle, and pedestrian facilities along project routes. ▪ Notify residential and commercial occupants of property adjacent to the construction sites of the hours of construction activity which may impact the area. ▪ Notify and coordinate with school systems regarding potential road closures prior to construction. ▪ Notify and coordinate with transit operators regarding potential road closures prior to construction. ▪ Notify and coordinate with mail service and waste haulers regarding potential road closures prior to construction. ▪ Provide a construction-parking plan that minimizes the effect of construction worker parking in the area. Include an estimate of the number of workers that will be present on the site during the various phases of construction, indicate where sufficient off-street parking will be used, and identify all locations for offsite material deliveries. ▪ Distribute public information using local news television and radio broadcasts, informational flyers and mailers, websites, and other outreach options. Install signs and distribute public notices regarding construction work before disruptions occur to identify detours to maintain access.
Public Health (PH) Section 3.21		
PH-01 DEIS Section 3.21.5	Construction effects on air quality	▪ Use low-emission vehicles during construction ▪ Use newer and well-maintained equipment ▪ Reduce traffic congestion emissions, for example by using site-specific traffic management plans
PH-02 DEIS Section 3.21.5	Operations effects on air quality	▪ Use Tier 4 locomotive engines ▪ Implement additional measures to reduce diesel locomotive idling times ▪ Locate the tracks, stations, and other supporting facilities away from populated areas and sensitive receptors

Mitigation ID and Reference	Potential Effect	Avoidance, Minimization, and Mitigation Measures for Consideration and Further Development at the Project Level
PH-03 DEIS Section 3.21.5	Construction effects on water quality	▪ Use runoff diversion measures, level spreaders, and subsurface drains
PH-04 DEIS Section 3.21.5	Operations effects on water quality	▪ Use wet and dry retention/detention ponds, vegetated swales, and conveyance systems ▪ Create adequate buffers around or adjacent to groundwater recharge areas ▪ Use most up-to-date industry standards for addressing water quality (e.g., porous surfacing and pavement)
PH-05 DEIS Section 3.21.5	Public health effects related to hazardous materials	▪ Use construction safety procedures, equipment stockpiling methods, material handling plans, and solid waste management procedures that protect human health and minimize hazardous materials releases during construction ▪ Develop specific environmental health and safety plans and procedures that protect construction workers and surrounding communities ▪ Use personal protection, workplace monitoring, alternative designs, and evaluation of construction methods that limit the effect from contaminated materials ▪ Follow applicable federal and state regulations for removal and disposal of hazardous materials, such as asbestos or lead-based paint, if such materials are encountered during building or structure renovation or demolition

Note: The responsible party for each avoidance, minimization, and mitigation measure for consideration and further development will be determined at the project level.

Sources:

Association of State Floodplain Managers:

(http://www.floods.org/index.asp?menuID=333&firstlevelmenuID=187&siteID=1). Mitigation Ideas, A Resource for Reducing Risk to Natural Hazards. FEMA. January 2013BNSF/UPRR. 2007. Guidelines for Railroad Separation Projects. January.

Oklahoma Department of Transportation (ODOT). 2009. Roadway Design Specifications.

Texas Department of Transportation (TxDOT). 2004. Standard Specifications for Construction and Maintenance of Highways, Streets, and Bridges. June.

2.6 Monitoring and Enforcement

Transportation projects must comply with federal, state, and local environmental laws and regulations, permits, reviews, notifications, consultation, and other approvals. Table ROD-5 lists the permits, notifications, or concurrences that may be required for construction of the Program. The specific permits and approvals that could be required for construction of any of the NEPA Selected Alternatives would be identified during the project-level evaluation of that alternative.

Table ROD-5: Anticipated Permits and Approvals

Agency	Permit
FEDERAL	
Bureau of Land Management	▪ ROW Permit
Department of the Interior – Bureau of Indian Affairs	▪ Consultation and Coordination with Indian Tribal Governments (Executive Order 11375)
Federal Aviation Administration	▪ Airport Layout Plan Modification Approval
Federal Emergency Management Agency	▪ Conditional Letter of Map Revision or Letter of Map Revision for changes in flood elevation
Federal Highway Administration	▪ Concurrence for Highway ROW Occupancy and/or Disposal ▪ Access Justification Report or Access Modification Report ▪ Concurrence on Project Design Elements Related to Highway Operations
National Marine Fisheries Service	▪ Section 7 Consultation and Biological Opinion
National Surface Transportation Board	▪ NEPA Consultation
Surface Transportation Board	▪ Authority to Construct and Operate Railroad
U.S. Advisory Council on Historic Preservation	▪ National Historic Preservation Act Section 106 consultation, administered by the Texas and Oklahoma SHPOs
U.S. Army Corps of Engineers	▪ Clean Water Act Section 404 Permit for discharge of dredged or fill materials into waters of the U.S., including wetlands ▪ Clean Water Act Section 401 Certification – Water Quality, administered by the Texas Commission on Environmental Quality and the

Agency	Permit
	Oklahoma Department of Environmental Quality ▪ Rivers and Harbors Act Section 10 Permit for construction of any structure in or over any navigable waters of the U.S. ▪ Rivers and Harbors Act Section 408 Permit for construction of new levee crossings
U.S. Coast Guard	▪ General Bridge Act Section 9 Permit for construction of new bridge structures over waterways considered navigable by the U.S. Coast Guard
U.S. Department of Transportation/Federal Railroad Administration	▪ U.S. Department of Transportation Act Section 4(f) evaluation and approval
U.S. Environmental Protection Agency	▪ Section 309 – Clean Air Act - Review of Draft Environmental Impact Statements ▪ Review of Environmental Justice Conclusions ▪ General Air Quality Conformity Determination ▪ Clean Water Act Section 402 National Pollutant Discharge Elimination System (NPDES) Permit, administered by the Texas Commission on Environmental Quality and the Oklahoma Department of Environmental Quality
U.S. Fish and Wildlife Service	▪ Section 7 Consultation and Biological Opinion
STATE	
Texas Commission of Environmental Quality	▪ Clean Water Act Section 401 Certification – Water Quality ▪ Clean Water Act Section 402 NPDES Permit, implemented by the Texas Pollutant Discharge Elimination System Program ▪ Notice of Intent to use General Permit TXR150000 for Stormwater Discharges Associated with Construction Activity ▪ Surface Water Use Permit ▪ Transportation Conformity Determination

Agency	Permit
Texas Department of Transportation	▪ Occupancy and Use Permit ▪ ROW Permit
Texas General Land Office	▪ Texas Coastal Management Program Coastal Coordination Council Consistency Determination
Texas Parks and Wildlife Department	▪ Scientific Collecting Permit for relocation of state-listed threatened and endangered species ▪ Marl, Sand, Gravel, Shell, or Mudshell Permit for disturbance or take of streambed materials
Texas State Historic Preservation Office	▪ National Historic Preservation Act Section 106 Consultation
Oklahoma Department of Environmental Quality	▪ Clean Water Act Section 401 Certification – Water Quality ▪ Clean Water Act Section 402 NPDES Permit, implemented by the Oklahoma Pollutant Discharge Elimination System Program ▪ Notice of Intent to use General Permit OKR10 for Stormwater Discharges from Construction Activities
Oklahoma Department of Transportation	▪ Occupancy and Use Permit ▪ ROW Permit
Oklahoma State Historic Preservation Office	▪ National Historic Preservation Act Section 106 Consultation
LOCAL	
Local agencies	▪ Construction Noise Permit (if construction violates city or county noise ordinance)

2.7 Determinations and Findings Regarding Other Laws

2.7.1 Section 4(f)/6(f)

Section 4(f) of the Department of Transportation Act of 1966, 49 U.S.C. § 303 and 23 U.S.C. § 138, is a federal law that protects publicly owned parks, recreation areas, wildlife and/or waterfowl refuges, and significant historic sites, whether publicly or privately owned. Section 4(f) requirements apply to all transportation projects that require funding or other approvals

by the USDOT. As a USDOT agency, FRA must comply with Section 4(f). The Federal Transit Administration's Section 4(f) implementing regulations are at 23 CFR Part 774.

FRA cannot approve a transportation project that uses a Section 4(f) property, as defined in 23 CFR § 774.17, unless FRA determines that:

- There is no feasible and prudent avoidance alternative, as defined in 23 CFR § 774.17, to the use of land from the Section 4(f) property, and the action includes all possible planning, as defined in 23 CFR § 774.14, to minimize harm to the property resulting from such use (23 CFT § 774.3(a)) or
- The use of the Section 4(f) property, including any measure(s) to minimize harm (such as any avoidance, minimization, mitigation, or enhancement measures) committed to by the applicant will have a *de minimis* use, as defined in 23 CFR § 774.17, on the property (23 CFR § 774.3(b)).

The term Section 4(f) "potential use" acknowledges that the detail available at the service-level EIS phase is not adequate for a "use" determination for two reasons:

1. The design level is not detailed enough to determine property acquisition needs.
2. Surveys to validate parks, recreation resources, and properties eligible for Section 106 protection are not sufficiently complete to verify that all Section 4(f) properties have been considered in this evaluation. As with "potential Section 4(f) properties," the term "potential uses" reflects an inclusive approach at this level. Any publicly available recreational resource, or any property identified as eligible or potentially eligible for the NRHP within the 500-foot-wide EIS Study Area, is considered protected under Section 4(f) and may result in a "potential use" for that alternative.

FRA cannot make a Section 4(f) determination at this service-level analysis because the information available at this time is not sufficiently detailed. This evaluation only indicates those resources where there may be a Section 4(f) use; however, in many situations, where the alternative's alignment is removed from an existing railway, there is not enough design development to determine whether the use would be permanent, temporary, or constructive, and the evaluation does not identify uses that may be classified as *de minimis* impacts.

The discussion of impacts under Section 6(f) of the Land and Water Conservation Fund (36 CFR 59.3) addresses conversion of Section 6(f) properties from outdoor recreational use to a use other than outdoor recreational use, which would occur through ROW acquisition or creation of permanent easements.

Table ROD-6: Number of Section 4(f)- and Section 6(f)-Protected Properties by Alternative (in the 500-foot EIS Study Area)

Protected Property Type	Alternatives					
	N4A CONV	C4A HSR	C4B HSR	C4C HSR	S4 HrSR	S6 HrSR/HSR
Section 4(f)-Protected Parks	27	24	16	27	20	1
Section 4(f)-Protected Refuges	0	0	0	0	1	0
Section 4(f)-Protected Recreation Areas	12	16	16	17	11	0
Section 4(f)-Protected Cultural Resources	26	24	18	28	30	0
Section 6(f)-Protected Properties	3	3	3	3	2	0
Total Section 4(f)- and/or 6(f)-Protected Properties[a]	**65**	**64**	**50**	**72**	**62**	**1**

[a] Because all Section 6(f) properties are also protected under Section 4(f), the Section 6(f) properties were not included in the Total Section 4(f) and/or Section 6(f) Protected Properties row to avoid counting the Section 6(f) properties twice.

Additional Section 4(f) and Section 6(f) properties would likely be identified at the project level when detailed field surveys and evaluations would be conducted.

Although several Section 4(f)-protected properties were identified within the EIS Study Area in both the Northern and Southern Sections, new facilities associated with alternatives in these sections would likely use existing railroad infrastructure, be built directly adjacent to existing railroad facilities and tracks, or, in the case of the Southern Section, be constructed in rural areas where there are limited 4(f) and 6(f) properties. Even expansion of existing

stations and construction of new stations within urban and suburban areas can avoid an adverse effect under Section 106 by adhering to the *Secretary of the Interior's Standards for the Treatment of Historic Properties* (National Park Service 1995) or, when possible, avoid effects on the urban or suburban properties altogether. Avoiding an adverse effect on historic resources allows some "use" but can result in a *de minimis* use classification. However, all of the Central Section alternatives would likely result in a potential use of Section 4(f) resources.

2.8 FRA Decision

This ROD documents the FRA's NEPA Selected Alternatives and FRA's decision-making process. This ROD does not grant approval for construction, funding, or permitting within the decision-making steps; instead, it provides for further detailed planning and potential project-level analysis of the NEPA Selected Alternatives. Based upon the consideration of the data presented in the DEIS, FEIS, and this ROD, FRA has made its decision that the service-level NEPA Preferred Alternatives as presented in the DEIS and FEIS, and as described in the above sections of this ROD, are selected for further consideration at the project-level.

The environmental record for this decision includes the following documents:

- The Service-Level DEIS
- The Service-Level Combined FEIS/ROD
- All technical reports, white papers, Title VI analysis (DEIS Sections 3.15.3 Public Involvement and 8.2 Public Coordination and Outreach), and supporting documentation incorporated by reference into the DEIS and FEIS/ROD

These documents, incorporated herein by reference, constitute the statements required by NEPA and Title 23 of the U.S.C. on:

- The environmental effects of the proposed alternatives
- The adverse environmental effects that cannot be avoided should the proposed alternatives be implemented
- Alternatives to the proposed alternatives
- Irreversible and irretrievable impacts on the environment that may be involved with the proposed alternatives should they be implemented

Having carefully considered the environmental record noted above, the mitigation measure strategies as required herein, the written and oral comments offered by agencies and the public on this record and the written responses to the comments, the FRA has determined that the following NEPA Selected Alternatives represent the best service-level options along the Program Corridor to be considered for future project-level evaluation:

- Alternative N4A CONV from Oklahoma City to Fort Worth with service extending to Dallas. Alternative N4A CONV would provide enhanced opportunities and improvements over the existing service, with faster service and more frequent connections.
- Alternative C4A HSR from Dallas and Fort Worth to San Antonio. Service would operate between Fort Worth and Dallas with a stop at DFW International Airport and extend south from Dallas to San Antonio. This service would provide efficient and reliable intercity passenger rail service along the corridor from Dallas and Fort Worth to San Antonio that is time-competitive with other travel mode options. It would also help alleviate congestion along IH-35 and provide connecting service to hubs for major regional air carrier services such as AUS and DFW.
- Alternative C4B HSR from Dallas and Fort Worth to San Antonio. Service would operate between Fort Worth and Dallas with a stop in Arlington then continue south from Arlington to San Antonio. This service would provide efficient and reliable intercity passenger rail service along the corridor from Dallas and Fort Worth to San Antonio that is time-competitive with other travel mode options. It would also help alleviate congestion along IH-35 and provide connecting service to hubs for major regional air carrier services such as AUS and DFW.
- Alternative C4C HSR from Dallas and Fort Worth to San Antonio. Service on this route would operate in a clockwise direction, running from Hillsboro to Fort Worth, east to Dallas, with a stop at DFW International Airport, back to Hillsboro, and south to San Antonio. This service would provide efficient and reliable intercity passenger rail service along the corridor from Dallas and Fort Worth to San Antonio that is time-competitive with other travel mode options. It would also help alleviate congestion along IH-35 and provide connecting service to hubs for major regional air carrier services such as AUS and DFW International Airport.
- Alternative S4 HrSR from San Antonio to Brownsville with an east-west leg from Laredo to Corpus Christi intersecting the north-south service in Alice. This alternative introduces intercity passenger rail service as a new alternative to transportation modes for the region and would provide an equitable and affordable intercity travel alternative to automobile, bus, and air service.
- Alternative S6 HrSR and Alternative S6 HSR from San Antonio to Laredo, extending to Monterrey, Mexico. These alternatives are selected only if the Monterrey, Mexico, connection is built. Alternative S6 HSR would be more compatible with the Selected Alternatives in the Central Section (Alternatives C4A, C4B, and C4C), which are all high-speed alternatives; however, if higher-speed rail is more compatible with the infrastructure in Mexico, S6 HrSR could be selected. These alternatives introduce intercity passenger rail service as a new alternative to transportation modes for the region and would provide an equitable and affordable intercity travel alternative to

automobile, bus, and air service. With the extension to Monterrey, they would provide opportunity for efficient international cross-border travel.

FRA finds that all practicable measures to minimize environmental harm at the service-level of analysis have been incorporated into the NEPA Selected Alternatives. The FRA also determines that this decision is in the best overall public interest.

Appendix A
Public Hearing Distribution List

Repository Locations

The DEIS was made available following publication of the NOA at the following sites:

- TxDOT Laredo District Office, 1817 Bob Bullock Loop, Laredo, TX 78043
- TxDOT Rail Division Office, 118 East Riverside Dr., Austin, TX 78704
- NCTCOG, 616 Six Flags Drive, Arlington, TX 76011
- ODOT, 200 NE 21st Street, Oklahoma City, OK 73105
- FRA, 1200 New Jersey Ave. SE, Washington, D.C., 20590

Notices of availability of the DEIS have been included in the *Federal Register*. Repositories and cooperating federal agencies were sent both hard and electronic copies of the DEIS and appendices. Other federal agencies, state agencies, and the selected interested parties listed below were sent summary chapters and electronic copies of the DEIS. Federal, state, and county elected officials, mayors of cities with possible stations, and potentially affected local agencies listed below were mailed instructions about how to obtain a copy of the DEIS. Additional local elected officials and agency representatives, along with others on the mailing list (approximately 187 contacts), have been mailed a notification that includes information about how to access the DEIS, timing for the formal comment period, and public hearing dates, times, and locations.

Distribution List

DEIS Distribution List	Contact Person	Title	Address
Federal Agencies			
Advisory Council on Historic Preservation	Sarah T. Bridges	Federal Preservation Officer	P.O. Box 2890, Washington, D.C. 20013-2890
Bureau of Indian Affairs	Dan Deerinwater	Director, Southern Plains Regional Office	WCD Office Complex, P.O. Box 368, Anadarko, OK 73005
Bureau of Land Management	Richard Fields	Assistant Field Office Manager	7906 E. 33rd Street, Suite 101, Tulsa, Oklahoma 74145-1352
Bureau of Reclamation	Michael Ryan	Regional Director	P.O. Box 36900, Billings, Montana 59107
Federal Aviation Administration			Aeronautical Center, 6500 South MacArthur Blvd., Oklahoma City, Oklahoma 73169
Federal Emergency Management Agency	Tony Robinson	Regional Administrator	FRC 800 North Loop 288, Denton, Texas 76209-3698
Federal Highway Administration	Al Alonzi	Division Administrator	300 E. 8th Street, Suite 826, Austin, Texas 78701
Federal Highway Administration	Gary Corino	Division Administrator	5801 N. Broadway Extension, Oklahoma City, Oklahoma 73118
Federal Transit Administration	Robert Patrick	Regional Administrator for Region 6	816 Taylor Street, Fort Worth, Texas 76102
Health and Human Services Region 6	Marjorie Petty	Regional Director	1301 Young Street, Suite 124, Dallas, Texas 75202
International Boundary and Water Commission	John Merino	Principal Engineer, US Section	4171 N. Mesa, Suite C-100, El Paso, Texas 79902-1441
National Marine Fisheries Service	David Bernhart	Assistant Regional Administrator, Protected Resources	263 13th Avenue South, St. Petersburg, Florida 33701

DEIS Distribution List	Contact Person	Title	Address
National Resources Conservation Service	James Tillman	Regional Conservationist, Southeast	1400 Independence Ave., SW, Room 5105-A, Washington, D.C. 20250
U.S. Army Corps of Engineers			P.O. Box 1229, Galveston, Texas 77553-1229
U.S. Bureau of Indian Affairs	Bill Walker	Regional Director, South West Regional Office	1001 Indian School Road, NW, Albuquerque, New Mexico 87104
U.S. Coast Guard	David Frank	Commander DPB, Eight Coast Guard District	500 Poydras Street, New Orleans, Louisiana 70130-3310
U.S. Department of Energy	Scott Hine	Director, Office of National Environmental Policy Act	1000 Independence Ave., Washington, D.C. 20585
U.S. Department of Homeland Security	The Honorable Jeh Johnson	Secretary of Homeland Security	Washington, D.C. 20528
U.S. Environmental Protection Agency	Rhonda Smith	Chief, Office of Planning and Coordination	EPA Region 6 Main Office, 1445 Ross Avenue, Suite 1200, Dallas, Texas 75202
U.S. Fish and Wildlife Service	Dr. Benjamin Tuggle	Regional Director	Southwest Region, P.O. Box 1306, Albuquerque, New Mexico 87103-1306
U.S. Forest Service	Jeffery Vail	Director of Lands, Mineral and Special Uses, Southern Region	1720 Peachtree Road, Atlanta, Georgia 30309
State Agencies			
Texas Coastal Coordination Council	Helen Young	Deputy Commissioner, Coastal Resources	P.O. Box 12873, Austin, Texas 78711-2873
Texas General Land Office	Hal Croft	Asset Management Deputy Commissioner	P.O. Box 12873, Austin, Texas 78711-2873

DEIS Distribution List	Contact Person	Title	Address
Texas Commission on Environmental Quality	Zac Covar	Executive Director	P.O. Box 13087, Austin, Texas 78711-3087
Texas Historical Commission	Mark Wolfe	Executive Director	P.O. Box 12276, Austin, Texas 78711
Texas Parks and Wildlife Department	Kathy Boydston	Wildlife Habitat Assessment Program	4200 Smith School Road, Austin, Texas 78744
Oklahoma Department of Environmental Quality	Steve Thompson	Executive Director	707 N. Robinson Ave. Oklahoma City, Oklahoma 73102
Oklahoma Department of Transportation			200 NE 21st Street, Oklahoma City, Oklahoma 73105-3204
Oklahoma Conservation Commission	Mike Thralls	Executive Director	2800 North Lincoln Blvd., Suite 160, Oklahoma City, Oklahoma 73105
Oklahoma Tourism and Recreation Department			900 N. Stiles Ave., Oklahoma City, Oklahoma 73104
Oklahoma Department of Wildlife Conservation	Richard Hatcher	Director	1801 N. Lincoln Blvd. P.O. Box 53465, Oklahoma City, Oklahoma 73152-8804
Oklahoma State Historic Preservation Office			800 Nazih Zuhdi Drive, Oklahoma City, Oklahoma 73105
Oklahoma Water Resources Board	J.D. Strong		3800 North Classen, Oklahoma City, Oklahoma 73118
Oklahoma Conservation Commission	Mike Thralls	Executive Director	2800 North Lincoln Blvd, Suite 160, Oklahoma City, Oklahoma 73105
Elected Officials			
Mayor, City of Ardmore	John Moore		23 S. Washington, City Commission Chambers, Ardmore, Oklahoma 73402
Mayor, City of Norman	Cindy Rosenthal		P.O. Box 370, Norman, Oklahoma 73070

DEIS Distribution List	Contact Person	Title	Address
Mayor, City of Edmond	Charles Lamb		24 E. First St., P.O. Box 2970, Edmond, Oklahoma 73083
Mayor, City of Oklahoma City	Mick Cornett		200 N Walker, 3rd Floor, Oklahoma City, OK 73102
Mayor, City of Gainesville	Jim Goldsworthy		200 South Rusk, Gainesville, Texas 76240
Mayor, City of Dallas	Mike Rawlings		1500 Marilla St., Suite 5EN, Dallas, Texas 75201
Mayor, City of Fort Worth	Betsey Price		1000 Throckmorton St., Fort Worth, Texas 76102
Mayor, City of Hillsboro	Edith Turner Omberg		1048 Park Drive, Hillsboro, TX 76645
Mayor, City of Waco	Malcolm Duncan, Jr.		P.O. Box 2570, 300 Austin Ave., Waco, Texas 76702
Mayor, City of Temple	Danny Dunn		2 N. Main Street, Suite 103, Temple, Texas 76501
Mayor, City of Taylor	Jesse Ancira, Jr.		400 Porter Street, Taylor, Texas 76574
Mayor, City of Austin	Steve Adler		P.O. Box 1088, Austin, TX 78767
Mayor, City of San Antonio	Ivy R. Taylor		P.O. Box 839966, San Antonio, TX 78283
Mayor, City of Alice	Ike Ornelas		500 E. Main St., P.O. Box 3229, Alice, Texas 78333
Mayor, City of Corpus Christi	Nelda Martinez		1201 Leopard St., P.O. Box 92777, Corpus Christi, Texas 78469
Mayor, City of McAllen	Jim Darling		1300 Houston Ave., McAllen, Texas 78501
Mayor, City of Harlingen	Chris Boswell		515 East Harrison, Suite A, Harlingen, Texas 78550
Mayor, City of Brownsville	Tony Martinez		1034 E. Levee Street, Brownsville, TX 78520, mayormartinez@cob.us
Mayor, City of Laredo	Pete Saenz		1110 Houston Street, Laredo, Texas 78040

DEIS Distribution List	Contact Person	Title	Address
Mayor, City of Purcell	David Lee		230 W. Main Street, Purcell, Oklahoma 73080
Mayor, City of Nuevo Laredo	Benjamin Gomez		Guerrero 1500, Zona Centro, C.P. 88000, Nuevo Laredo, Tamaulipas 52*11*27627
Federal Elected Officials			
U.S. Senators			
Texas	The Honorable Ted Cruz		300 E. 8th, Suite 961, Austin, Texas 78701
Oklahoma	The Honorable Jim Inhofe		1924 S. Utica Ave #530, Tulsa, Oklahoma 74104
U.S. House of Representatives			
Texas	The Honorable Filemon Vela		437 Cannon HOB, Washington, D.C. 20515
	The Honorable Ruben Hinojosa		2262 Rayburn, HOB, Washington, D.C. 20515
	The Honorable Henry Cuellar		2209 Rayburn, HOB, Washington, D.C. 20515
	The Honorable Will Hurd		317 Cannon HOB, Washington, D.C. 20515
	The Honorable Lamar Smith		2409 Rayburn, HOB, Washington, D.C. 20515
	The Honorable Lloyd Doggett		2307 Rayburn HOB, Washington, D.C. 20515
	The Honorable Michael T. McCaul		131 Cannon HOB, Washington, DC 20515
	The Honorable John Carter		2110 Rayburn HOB, Washington, D.C. 20515

DEIS Distribution List	Contact Person	Title	Address
	The Honorable Roger Williams		1323 Longworth HOB, Washington, D.C. 20515
	The Honorable Bill Flores		1030 Longworth HOB, Washington, D.C. 20515
	The Honorable Joe Barton		2107 Rayburn HOB, Washington, D.C. 20515
	The Honorable Marc Veasey		414 Cannon HOB, Washington, DC 20151
	The Honorable Eddie Bernice Johnson		2468 Rayburn HOB, Washington, D.C. 20515
	The Honorable Michael Burgess		2336 Rayburn HOB, Washington, D.C. 20515
	The Honorable Sam Johnson		2304 Rayburn HOB, Washington, D.C. 20515
	The Honorable Mac Thornberry		2208 Rayburn HOB, Washington, D.C. 20515
Oklahoma	The Honorable Tom Cole		2467 Rayburn HOB, Washington, DC 20515
	The Honorable Steve Russel		128 Cannon HOB, Washington, D.C. 20515
State Elected Officials			
Governor			
Texas	The Honorable Greg Abbot		P.O. Box 308, Austin, Texas 78767
Oklahoma	The Honorable Mary Fallin		2300 N. Lincoln Blvd., Room 212, Oklahoma City, Oklahoma 73105

DEIS Distribution List	Contact Person	Title	Address
State Senate			
Texas	The Honorable Eddie Lucio, Jr.		P.O. Box 12068, Capitol Station, Austin, Texas 78711
	The Honorable Juan "Chuy" Hinojosa		P.O. Box 12068, Capitol Station, Austin, Texas 78711
	The Honorable Judith Zaffirini		P.O. Box 12068, Capitol Station, Austin, Texas 78711
	The Honorable José Menéndez		P.O. Box 12068, Capitol Station, Austin, Texas 78711
	The Honorable Donna Campbell		P.O. Box 12068, Capitol Station, Austin, Texas 78711
	The Honorable Kirk Watson		P.O. Box 12068, Capitol Station, Austin, Texas 78711
	The Honorable Brian Birdwell		P.O. Box 12068, Capitol Station, Austin, Texas 78711
	The Honorable Craig Estes		State Capitol, Room 3E.18, P.O. Box 12068, Capitol Station, Austin, Texas 78711
Oklahoma	The Honorable Anastasia Pittman		2300 N. Lincoln Blvd., Room 524, Oklahoma City, Oklahoma 73105
	The Honorable Ervin Yen		2300 N. Lincoln Blvd., Room 411A, Oklahoma City, Oklahoma 73105
	The Honorable Kay Floyd		2300 N. Lincoln Blvd., Room 522A, Oklahoma City, Oklahoma 73105
	The Honorable Kyle Loveless		2300 N. Lincoln Blvd., Room 237, Oklahoma City, Oklahoma 73105

DEIS Distribution List	Contact Person	Title	Address
	The Honorable John Sparks		2300 N. Lincoln Blvd., Room 519, Oklahoma City, Oklahoma 73105
	The Honorable Susan Paddack		2300 N. Lincoln Blvd., Room 522B, Oklahoma City, Oklahoma 73105
	The Honorable Frank Simpson		2300 N. Lincoln Blvd., Room 414, Oklahoma City, Oklahoma 73105
Regional/Local Agencies			
Alamo Area of Governments	Susan Lodge		8700 Tesoro Drive, Suite 160, San Antonio, Texas 78217
Alamo Regional Mobility Authority	Terry Brechtel		613 N. W. Loop 410, Suite 100, San Antonio, Texas
Arkoma Regional Planning Commission	John Guthrie	Executive Director	P.O. Box 2067, Fort Smith, Arkansas 72901
Bexar County	Renee Green	County Engineer	233 N. Pecos, Suite 420, San Antonio, Texas 78207
Bi State Metropolitan Planning Organization	Ken O'Donnell	Study Director	101 W. Nueva, 10th Floor, San Antonio, Texas 78205
Capital Area Metropolitan Planning Organization (CAMPO)	Ashby Johnson	Executive Director	P.O. Box 1088, Austin, Texas 78767
Capital Area Rural Transportation System	Dave Marsh		2010 E. 6th Street, Austin, Texas 78702
Capital Metro	Melvin Clarke	VP of Rail Operations	2910 E. 5th Street, Austin, Texas 78702
Collin County Area Regional Transit	Ronald "Rep" Pledger		600 N. Tennessee Street, McKinney, Texas 75069

DEIS Distribution List	Contact Person	Title	Address
Corpus Christi Metropolitan Planning Organization	Tom Niskala		5151 Flynn Parkway, Suite 404, Corpus Christi, Texas 78411
Corpus Christi Regional Transit Authority	Scott Neeley	Chief Executive Officer	5658 Bear Lane, Corpus Christi, Texas 78405
Dallas Area Regional Transit (DART)	Tim McKay	Senior Vice President, Rail Program Development	P.O. Box 660163, Dallas, Texas 75202
Denton County Transportation Authority	Jim Cline Jr.	President	1660 S. Stemmons, Suite 250, Lewisville, Texas 75607
Department of Environmental Quality		Environmental Review Coordinator	P.O. Box 1677, Oklahoma City, Oklahoma 73101
El Metro/Laredo Transit	Mark Pritchard	General Manager	1301 Farragut, Laredo, Texas 78040
Fort Wort Transit Authority	Curvie Hawkins	Director of Planning	1600 E. Lancaster Ave., Fort Worth, Texas 76102
Harlingen Express/Valley Metro	Thomas Logan	Valley Metro Program Director	301 W. Railroad, Weslaco, Texas 78596
Harlingen-San Benito Metropolitan Planning Organization	Rebecca Castillo		502 E. Typer St., Harlingen, Texas 78550
Heart of Texas Council of Government Rural Transit	Alisha Edgar	Public Transportation Operations Coordinator	1514 S. New Road, Waco, Texas 76711
Hidalgo County Metropolitan Planning Organization	Andrew Canon	Transportation Director	510 S. Pleasantview Dr., Weslaco, Texas 78596
Hill Country Transit	Carole Warlick	General Manager	906 S. High Street, San Saba, Texas 76877
Lawton Metropolitan Planning Organization	Pat Henry		103 SW 4th Street, Lawton, Oklahoma 73501
North Central Texas Council of Governments (NCTCOG)	Kevin Feldt	Program Manager	P.O. Box 5888, Arlington, Texas 76005

DEIS Distribution List	Contact Person	Title	Address
Port of Brownsville	Eduardo Campirona	Port Director	1000 Foust Road, Brownsville, Texas 78521
Port of Corpus Christi	Frank Brogan	Port Director	P.O. Box 1541, Corpus Christi, Texas 78403
San Antonio-Bexar County Metropolitan Planning Organization	Sid Martinez	Director	825 S. Mary's, San Antonio, Texas 78205
Sherman-Denison Metropolitan Planning Organization	Robert Wood		1117 Gallagher Dr., Suite 300, Sherman, Texas 75090
San Antonio Airport	Frank Miller	Director	9800 Airport Blvd., San Antonio, Texas 78205
Trinity Railroad Express (TRE)	Jeffery Borowiec		P.O. Box 660163, Dallas, Texas 75202
Waco Metropolitan Planning Organization	Russell Devorsky	Executive Director	P.O. Box 2570, Waco, Texas 76702
Brownsville Metropolitan Planning Organization	Mark Lund		P.O. Box 911, Brownsville, Texas 78522
Dallas-Fort Worth Airport	Greg Royster	Senior Airport Planner	P.O. Box 619428, Dallas, Texas 75261
Fort Hood Military Base	Col. Benton Danner	III Corps Public Affairs Officer	1001 761st Tank Battalion Ave., Fort Hood, Texas 76544
McLennan County	Michael Meadows, P.E.		347 Howe Hill Road, Robinson, Texas 76706
Association of Central Oklahoma Governments	John Johnson	Executive Director	21 E. Main Street, Suite 100, Oklahoma City, Oklahoma 73104
Association of South Central Oklahoma Governments	Blaine Smith Jr.	Executive Director	802 Main Street, P.O. Box 1647, Duncan, Oklahoma 73534
Bi-State Metropolitan Planning Organization	Ken O'Donnell	Study Director	P.O. Box 2067, Fort Smith, Arkansas 72902

DEIS Distribution List	Contact Person	Title	Address
Caldwell County	Bill Gardner	County Engineer	110 S. Main Street, Lockhart, Texas 78644
City of Austin, Transportation Department	Rob Spillar	Director of Transportation	505 Barton Springs Road, Austin, Texas 78704
City of Dallas	Peer Chacko	Assistant Director, Strategic Planning	320 E. Jefferson, Rm 101, Dallas, Texas 75203
City of Pflugerville	Trey Fletcher	Assistant City Manager	P.O. Box 589, Pflugerville, Texas 78691
City of San Antonio	Majed Al-Gahfry	Director of Public Works	114 W. Commerce, San Antonio, Texas 78205
Killeen-Temple Metropolitan Planning Organization	Annette Shephard		P.O. Box 729, Belton, Texas 76513
Lone Star Rail District	Joe Black	Rail Director	P.O. Box 1618, San Marcos, Texas 78667
Travis County	Steve Manilla	Public Works Director	411 W. 13th Street, Austin, Texas 78767
City of Brownsville MPO	Mark Lund		P.O. Box 911, Brownsville, Texas 78522
City of Laredo	Carlos Villarreal	City Manager	1110 Houston St., P.O. Box 579, Laredo, Texas 78042
City of South Padre Island	Marcy Newman	Public Works	4601 Padre Blvd., South Padre Island, Texas 78597
City of Gainsville	Barry Sullivan	City Manager	200 S. Rusk Street, Gainesville, Texas 76240
Organizations and Businesses			
Amtrak	Walter Lander	Senior Director, Corridor Planning	500 W. Jackson Blvd., Chicago, Illinois 60661
Associated General Contractors	Tom Johnson		P.O. Box 2185, Austin, Texas 78767
Bee Community Action Agency	Anna Simo	Executive Director	P.O. Box 1540, Beeville, Texas 78104

DEIS Distribution List	Contact Person	Title	Address
BNSF Railway	DJ Mitchell	Assistant VP Passenger Operations	2500 Lou Menk Drive, Fort Worth, Texas 76131
Brownsville Economic Development Council	Jason Hilts	President and CEO	P.O. Box 671, Brownsville, Texas 78522
Central Oklahoma Economic Development District	Greg Clifton	Executive Director	400 N. Bell Street, Shawnee, Oklahoma 74802
Grand Gateway Economic Development Association	Edward Crone	Executive Director	333 S. Oak Street, Big Cabin, Oklahoma 74332
Sierra Club, Lone Star Chapter			P.O. Box 1931, Austin, Texas 78767
Citizens for Environmental Justice	Suzie Canales	Executive Director	5757 S. Staples Street, #1901, Corpus Christi, Texas 78413
Eastern Oklahoma Economic Development District	Ernie Moore	Acting Director	1012 N. 38th Street, Muskogee, Oklahoma 74402
KCS Railway	Kevin McIntosh	Assistant VP State and Local Relations	427 W. 12th Street, Kansas City, Missouri 61405
Rainbow Lines	Noelia Ruiz	Transportation Program Director	609 W. Main St., Benavides, Texas 78341
The B/Corpus Christi Transit	Scott Neeley	Chief Executive Officer	5658 Bear Lane, Corpus Christi, Texas 78405
The Wave – South Padre Island	Jesse Arriaga	General Manager	4601 Padre Blvd., South Padre Island, Texas 78597
Union Pacific Railroad	Mark Bristol	Vice President Public Affairs	24125 Aldine Westfield, Spring, Texas 77373

DEIS Distribution List	Contact Person	Title	Address
Native American Contacts			
Texas			
Absentee Shawnee Tribe of Oklahoma	Staci Hesler	Cultural Preservation Office	2025 S. Gordon Cooper, Shawnee, Oklahoma 74801
Alabama-Coushatta Tribe of Texas			571 State Park Road 56, Livingston, Texas 77351
Alabama-Quassarte Tribal Town	Augustine Asbury	Historic Preservation Office	101 E. Broadway, P.O. Box 187, Wetumka, Oklahoma 74883
Apache Tribe of Oklahoma		Historic Preservation Office	P.O. Box 1330, Anadarko, Oklahoma 73005
Caddo Nation of Oklahoma		Historic Preservation Office	P.O. Box 487, Binger, Oklahoma 73009
Choctaw Nation of Oklahoma	Dr. Ian Thompson	Historic Preservation Department	P.O. Drawer 1210, Durant, Oklahoma 74801
Comanche Nation of Oklahoma	Jimmy Arterberry	Tribal Historic Preservation Officer	P.O. Box 908, Lawton, Oklahoma 73502
Kialegee Tribal Town		Historic Preservation Office	P.O. Box 332, Wetumka, Oklahoma 74883
Kickapoo Tribe of Oklahoma	Kent Collier	Historic Preservation Office	P.O. Box 70, McLoud, Oklahoma 74851
Kickapoo Traditional Tribe of Texas			162 Chick Kazen Street, Eagle Pass, Texas 78852
Kiowa Indian Tribe of Oklahoma		c/o Kiowa Culture Preservation Authority	P.O. Box 369, Carnegie, Oklahoma 73015
Mescalero Apache Tribe		Historical Preservation Office	P.O. Box 227, Mescalero, New Mexico 88340

DEIS Distribution List	Contact Person	Title	Address
Muscogee (Creek) Nation of Oklahoma	Terry Cole	Tribal Historic Preservation Office	P.O. Box 580, Okmulgee, Oklahoma 74447
Poarch Band of Creek Indians			5811 Jack Springs Road, Atmore, Alabama 36502
Quapaw Tribe of Indians	Jean Ann Lambert	Tribal Historic Preservation Office	P.O. Box 765, Quapaw, Oklahoma 74363
Seminole Nation of Oklahoma	Natalie Deere	Historic Preservation Office	P.O. Box 1498, Wewoka, Oklahoma 74884
Delaware Nation	Kerry Holten	President	P.O. Box 825, Anadarko, Oklahoma 74005
Thlopthlocco Tribal Town	Charles Coleman	Historic Preservation Office	P.O. Box 188, Okemah, Oklahoma 74859-0188
Tonkawa Tribe of Indians of Oklahoma	Donald Patterson	Chairperson	1 Rush Buffalo Road, Tonkawa, Oklahoma 74653
Wichita and Affiliated Tribes		Historic Preservation Office	P.O. Box 729, Anadarko, Oklahoma 73005
Oklahoma			
Absentee Shawnee Tribe	Staci Hesler	Cultural Preservation Office	2025 S. Gordon Cooper, Shawnee, Oklahoma 74801
Apache Tribe of Oklahoma		Historic Preservation Office	P.O. Box 1330, Anadarko, Oklahoma 73005
Cheyenne and Arapaho Tribes	Margaret Anquoe	Acting Tribal Historic Preservation Officer	P.O. Box 38, Concho, Oklahoma 73022
Fort Sill Apache Tribe	Michael Darrow	Historic Preservation Office	Route 2, Box 121, Apache, Oklahoma 73006
Iowa Tribe of Oklahoma		Cultural Preservation Office	Route 1, Box 721, Perkins, Oklahoma 74059

DEIS Distribution List	Contact Person	Title	Address
Kickapoo Tribe of Oklahoma	Kent Collier	Historic Preservation Office	P.O. Box 70, McLoud, Oklahoma 74851
Kiowa Indian Tribe of Oklahoma		c/o Kiowa Culture Preservation Authority	P.O. Box 369, Carnegie, Oklahoma 73015
Osage Nation	Andrea Hunter	Historic Preservation Office	627 Grandview, Pawhuska, Oklahoma 74056

Appendix B
Public Hearing Legal Notices – English and Spanish

Austin American-Statesman
statesman.com | austin360.com

Notice of Public Hearing

The Texas Department of Transportation (TxDOT), in partnership with the Federal Rail Administration (FRA) will conduct a series of public hearings on the Texas-Oklahoma Passenger Rail Study - CSJ number: 8300-00-018:

Tuesday, August 9, 2016
TxDOT Laredo District Office,
1817 Bob Bullock Loop,
Laredo, TX 78043
Large Meeting Room
Open House: 5:30 p.m.
Presentation: 6:00 p.m.

Wednesday, August 10, 2016
TxDOT Austin District- 7901 N. I-35
Austin, TX 78753
Big 7, District Hearing Room
Open House: 5:30 p.m.
Presentation: 6:00 p.m.

Thursday, August 11, 2016
North Central Texas Council of Governments (NCTCOG)
616 Six Flags Drive
Arlington, TX 76011
Transportation Council Room
Open House: 5:30 p.m.
Presentation: 6:00 p.m.

The purpose of the hearing is to present the Draft Environmental Impact Statement (DEIS) for the Texas-Oklahoma Passenger Rail Study and to receive public comment. At all hearings, displays will be available for viewing at 5:30 P.M. with the formal hearing commencing at 6:00 P.M.

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The Draft Environmental Impact Statement (DEIS) and other information relative to the study are on file and available for inspection Monday through Friday between the hours of 8:00 a.m. and 5:00 p.m. at the TxDOT Laredo District Office-1817 Bob Bullock Loop, Laredo, TX 78043, TxDOT Rail Division-118 East Riverside, Austin, TX 78704 & the North Central Texas Council of Governments (NCTCOG) - 616 Six Flags Drive Arlington, TX 76011. Project information is available at http://www.txdot.gov/inside-txdot/projects/studies/statewide/texas-oklahoma-rail.html and information will be available for inspection at the hearings.

All interested citizens are invited to attend these public hearings. Verbal and written comments from the public regarding this study are requested and may be presented for a period of 45 calendar days following the hearing. Written comments may be submitted either in person or by mail to the TxDOT Rail Division, Mr. Mark Werner 125 E. 11st Street Austin, TX 78704. Comments must be received on or before Monday, August 29, 2016 in order to become part of the official hearing record.

The Public Hearing will be conducted in English. Persons interested in attending the hearing who have special communication or accommodation needs, or need an interpreter, are encouraged to contact Mr. Mark Werner at (512) 486-5137. Requests should be made at least two days prior to the public hearing. Every reasonable effort will be made to accommodate these needs. If you have general questions or concerns regarding the study, you may contact Mr. Mark Werner at (512) 486-5137.
7-9/2016 #623425

STATE OF TEXAS
COUNTY OF TRAVIS

Before me, the undersigned authority, a Notary Public in and for the County of Travis, State of Texas, on this day personally appeared Nadia Vagedes. Advertising Agent of the Austin American-Statesman, a daily newspaper published in said County and State that is generally circulated in Bastrop, Bell, Blanco, Brazos, Burleson, Burnet, Caldwell, Colorado, Comal, Coryell, Fayette, Gillespie, Gonzales, Guadalupe, Hays, Kerr, Lampasas, Lee, Llano, Milam, Nueces, San Saba, Travis, Washington and Williamson Counties, who being duly sworn by me, states that the attached advertisement was published at the lowest published rate for Classified advertising in said newspaper on the following date(s), to wit:CH2M HILL,CSJ number: 8300-00-018 ENGLISH,First date of Publication 07/09/2016,Last date of Publication 07/09/2016,Web and print times Published 2, Legal Notices, 1 X 116, and that the attached is a true copy of said advertisement.
CSJ number: 8300-00-018 ENGLISH
Ad ID: 1201288
Ad Cost: 1,494.08

Nadia Vagedes

SWORN AND SUBSCRIBED TO BEFORE ME, on
08/02/2016

Notary Public

NOTARY PUBLIC STATE OF OHIO

JUSTIN PETERSON, Notary Public
In and for the State of Ohio
My Commission Expires July 31, 2019

Austin American-Statesman
statesman.com | austin360.com

Aviso de reunión pública

El Departamento de Transporte de Texas (TxDOT), en asociación con la Administración Federal de Ferrocarriles (FRA), realizará una serie de reuniones públicas para tratar el Estudio de Tren de Pasajeros entre Texas-Oklahoma - CSJ nombre: 8300-00-018:

Martes 9 de agosto de 2016
Oficina de TxDOT del Distrito de Laredo,
1817 Bob Bullock Loop,
Laredo, TX 78043
Sala de reuniones grande
Casa abierta: 5:30 p.m.
Presentación: 6:00 p.m.

Miércoles 10 de agosto de 2016
TxDOT del Distrito de Austin-7901 N. I-35
Austin, TX 78753
Edificio 7, sala de reunlones del distrito
Casa abierta: 5:30 p.m.
Presentación: 6:00 p.m.

Jueves 11 de agosto de 2016
Consejo de Gobiernos del Centro-Norte de Texas (NCTCOG)
616 Six Flags Drive
Arlington, TX 76011
Sala del Consejo de Transporte
Casa abierta: 5:30 p.m.
Presentación: 6:00 p.m.

El objetivo de la reunión es presentar la Declaración de Impacto Ambiental Preliminar (DEIS) correspondiente al Estudio de Tren de Pasajeros entre Texas-Oklahoma y recibir los comentarios del público. En todas las reuniones, se exhibirán imágenes informativas a las 5:30 p.m., y la reunión formal comenzará a las 6:00 p.m.

El Estudio de Tren de Pasajeros entre Texas-Oklahoma es un estudio de planificación para determinar si es viable desarrollar un servicio de tren de pasajeros en un corredor de 850 millas que se extendería desde la ciudad de Oklahoma, en el estado homónimo, hasta el sur de Texas. El estudio analizó varias opciones de servicios de pasajeros que abarcan desde el servicio convencional que ofrece Amtrak hasta un verdadero servicio de tren de pasajeros de alta velocidad. El área del estudio se dividió en tres segmentos: el segmento norte, desde la ciudad de Oklahoma hasta Dallas/Fort Worth; el segmento central, desde Dallas/Fort Worth hasta San Antonio, y la sección sur, desde San Antonio hasta el sur de Texas. Mediante el estudio, se determinó el impacto ambiental, se identificaron los tipos de servicios propuestos y se elaboraron planes de desarrollo de servicios para cada uno de los tres segmentos. Como parte de este estudio, se desarrollaron adecuaciones conceptuales para determinar los costos de construcción, operación y mantenimiento, y los cálculos de ingresos correspondientes a cada segmento.

La Declaración de Impacto Ambiental Preliminar (DEIS) y el resto de la información relacionada con el estudio se encuentran en el expediente y están disponibles para su revisión de lunes a viernes, entre las 8:00 a.m. y las 5:00 p.m., en la Oficina de TxDOT del Distrito de Laredo, 1817 Bob Bullock Loop, Laredo, TX 78043, Departamento Ferroviario de TxDOT - 125 E. 11st Street Austin, TX 78704, y en el Consejo de Gobiernos del Centro-Norte de Texas (NCTCOG) - 616 Six Flags Drive Arlington, TX 76011. Información también está disponible en http://www.txdot.gov/inside-txdot/projects/studies/statewide/texas-oklahoma-rail.html y esta información también estará disponible para su revisión en las reuniones.

Todos los ciudadanos interesados están invitados a asistir a estas reuniones públicas. Se requiere que el público presente sus comentarios sobre este estudio de forma oral y por escrito; dichos comentarios se pueden presentar durante un plazo de 45 días corridos después de la reunión. Los comentarios por escrito se pueden entregar en persona o enviar por correo al Departamento Ferroviario de TxDOT, a nombre del Sr. Mark Werner a 125 E. 11st Street Austin, TX 78704. Para formar parte del registro oficial de la reunión, los comentarios se deben recibir como máximo el lunes 29 de agosto de 2016.

La reunión pública será en inglés. Las personas interesadas en asistir a la reunión que tengan necesidades especiales de comunicación o adaptación, o que necesiten un intérprete deben comunicarse con el Sr. Mark Werner al (512) 486-5137. Las solicitudes deben realizarse al menos dos días antes de la reunión pública. Se realizarán todos los esfuerzos razonables para satisfacer estas necesidades. Si tiene preguntas o inquietudes sobre el estudio, puede comunicarse con el Sr. Mark Werner al (512) 486-5137.
7-9/2016 #623431

STATE OF TEXAS
COUNTY OF TRAVIS

Before me, the undersigned authority, a Notary Public in and for the County of Travis, State of Texas, on this day personally appeared Nadia Vagedes. Advertising Agent of the Austin American-Statesman, a daily newspaper published in said County and State that is generally circulated in Bastrop, Bell, Blanco, Brazos, Burleson, Burnet, Caldwell, Colorado, Comal, Coryell, Fayette, Gillespie, Gonzales, Guadalupe, Hays, Kerr, Lampasas, Lee, Llano, Milam, Nueces, San Saba, Travis, Washington and Williamson Counties, who being duly sworn by me, states that the attached advertisement was published at the lowest published rate for Classified advertising in said newspaper on the following date(s), to wit:CH2M HILL,CSJ number: 8300-00-018 SPANISH,First date of Publication 07/09/2016,Last date of Publication 07/09/2016,Web and print times Published 2, Legal Notices, 1 X 131, and that the attached is a true copy of said advertisement.
CSJ number: 8300-00-018 SPANISH
Ad ID: 1201299
Ad Cost: 1,687.28

SWORN AND SUBSCRIBED TO BEFORE ME, on
08/02/2016

Notary Public

NOTARY PUBLIC STATE OF OHIO

JUSTIN PETERSON, Notary Public
In and for the State of Ohio
My Commission Expires July 31, 2019

BROWNSVILLE

The Herald

PUBLISHER'S AFFIDAVIT

STATE OF TEXAS
COUNTY OF CAMERON

I Jose Andres Carrizales, being duly sworn on his oath states that he is a representative of El Nuevo Heraldo and that the attached notice appeared in the following issues:

Date: 9 de julio de 2016

Acct: 40008249 CH2M HILL / TX DOT

Ticket: 85107668

Subscribed and sworn to before me on this the 11 day of julio 2016

SYLVIA ANN GONZALEZ
Notary Public, State of Texas
Notary ID #12679868-8
My Commission Expires 3-6-2017

Notary Public, Cameron County
State of Texas

sona o enviar por correo al Departamento Ferroviario de TxDOT, a nombre del Sr. Mark

Texas Department of Transportation

Notice of Public Hearing

The Texas Department of Transportation (TxDOT), in partnership with the Federal Rail Administration (FRA) will conduct a series of public hearings on the Texas-Oklahoma Passenger Rail Study - CSJ number: 8300-00-018:

Tuesday, August 9, 2016
TxDOT Laredo District Office, 1817 Bob Bullock Loop, Laredo, TX 78043
Large Meeting Room
Open House: 5:30 p.m.
Presentation: 6:00 p.m.

Wednesday, August 10, 2016
TxDOT Austin District- 7901 N. I-35 Austin, TX 78753
Big 7, District Hearing Room
Open House: 5:30 p.m.
Presentation: 6:00 p.m.

Thursday, August 11, 2016
North Central Texas Council of Governments (NCTCOG)
616 Six Flags Drive Arlington, TX 76011
Transportation Council Room
Open House: 5:30 p.m.
Presentation: 6:00 p.m.

The purpose of the hearing is to present the Draft Environmental Impact Statement (DEIS) for the Texas-Oklahoma Passenger Rail Study and to receive public comment. At all hearings, displays will be available for viewing at 5:30 P.M. with the formal hearing commencing at 6:00 P.M.

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BROWNSVILLE

The Herald

PUBLISHER'S AFFIDAVIT

STATE OF TEXAS
COUNTY OF CAMERON

I Jose Andres Carrizales, being duly sworn on his oath states that he is a representative of The Brownsville Herald and that the attached notice appeared in the following issues:

Date: July 09, 2016

Acct: 40008249 CH2M HILL / TX DOT

Ticket: 85107667

Jose A Carrizales

Subscribed and sworn to before me on this the 11 day of July 2016.

SYLVIA ANN GONZALEZ
Notary Public, State of Texas
Notary ID #12679868-8
My Commission Expires 3-6-2017

Sylvia Ann Gonzalez

Notary Public, Cameron County
State of Texas

AFFIDAVIT OF PUBLICATION

STATE OF TEXAS

COUNTY OF DALLAS

Before me, a Notary Public in and for Dallas County, this day personally appeared Filiz Onculer, Advertising Representative for The Dallas Morning News, being duly sworn by oath, states the attached advertisement of

CH2MHILL

was published in The Dallas Morning News

July 6, 2016

(Filiz Onculer)

Sworn to and subscribed before me this July 11, 2016

(Notary Public)

LYNDA F BLACK
My Commission Expires
May 27, 2017

AFFIDAVIT OF PUBLICATION

STATE OF TEXAS

COUNTY OF DALLAS

Before me, a Notary Public in and for Dallas County, this day personally appeared Filiz Onculer, Advertising Representative for The Dallas Morning News, being duly sworn by oath, states the attached advertisement of

CH2MHILL

was published in Al Dia

The week of July 10, 2016

(Filiz Onculer)

Sworn to and subscribed before me this July 11, 2016

(Notary Public)

LYNDA F BLACK
My Commission Expires
May 27, 2017

dallasnews.com

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dvertising Jobs, Real Estate & Misc.

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Classifieds

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allasnews.com

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dallasnews.com/jobs

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Stone Granite High Tech Auction. World Wide Auction Inc. Has been ioned to liquidate at auction this massive warehouse jammed packed rally everything that the auction entrepreneur would have an interest in. ts: Natural Stone Marble and granite tile, Wood Flooring, Huge amount Lighting Electrical, Electronics, Electronics Test Equipment, Building Metro Racks, Fork Lifts Electric Pallet Jacks, Computer Components, ass Bottles, Moving cases, Compressor, Machinery, Automotive shop ni, Rubbermaid work carts. shipping boxes, Residential and Commercial Nails, and so much more. Over 1300 lots, Don't miss it. This Auction nline only. Court Ordered Move. Terms: Cash, No Checks of any kind, ick Pay, Or Sure Pay, Visa MasterCard's with 2% Administration Fee. on 15% Buyers Premium added to all sales and your invoice will be of the conclusion of the line only auction. Call 972-672-8725
uction Preview: Fri July 9th, Mon July 11th, and Tue July 12th 10-2 On-tion Ends Online: Wed July 13th 10am Starting 10am 4 lots per min.... Pickup: Thur & Fri 10-6 Everything has to be paid for Thur. by 6pm.
er Park road Garland Texas. 75042
ww.worldwideauctiongroup.com

nery & Tools | Machinery & Tools

Estate Auction

urday July 9, 2016 10:00am
A MORROW BULL ESTATE
Thomas Lane, Scurry, Texas 75158

CHEV TRUCK, INTERNATIONAL 504 TRACTOR WWITH FMC 7FT MOWER, FORD F100 STEP-SIDE TRUCK(NOT ING) 15X27FT. MORGAN BUILDING, LER HOUSE, BOTH TO BE MOVED. VER TOOLS, HOUSEHOLD ITEMS, NTIQUE FURNITURE/DISHES.
TO MUCH TO LIST!
are CASH and/or CHECK with a Bank letter of Credit.

Taliaferro Auction Company
S TALIAFERRO, OWNER TXS-039-006996
P.O. Box 9 Rosser, TX 75157
972)486-3140 (214)674-8064 or
mith 469-688-7748 AUCTION ASSISTANT

g/Carpeting | Flooring/Carpeting

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OOD FLOORS • TILE • STONE
T • FLOOR REPAIRS + MORE!
2-279-4898
s Thomasson Rd Mesquite TX

plex

Rowlett

8209 Kensington looks like a new model home! 3br/2bth, 2 car garage, fenced backyard, new hardwood floors, new granite countertops, new crown molding, and a beautiful fire place. $198,000, 214-557-7568 Will Trade!

Irving

(Home Auction ine 7/11-7/19 tion.com/972-898-9566 l Estate – Dallas s. Auctioneer #6756 ner's Premium

Out-of-Metroplex Sales

Plano

Hill Country

75 Acs. N. of Junction.

Out of Metroplex - North

LAND FOR SALE 1063 acres in 3 Tracts Garvin and Murray Counties, OKLAHOMA Homesites,Ponds & Hunt websersmeadow.com CALL 580-369-9066

Sales Miscellaneous

Manufactured Homes

2012 Mobile Home,3BR,2BA,Clean Modern Decor, All appliances. Upgraded Cedar Fence. Landscaped.1152 sq ft, 16x72. Non smoker. 43K, Lot Rent extra. 816-522-4393.

PRE OWNED MOBILE HOMES
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Want to Buy

CASH FOR
Your House. Any Condition
Any price. Call Jim
972-466-3767

WE BUY HOUSES AND HOUSE NOTES
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FORECLOSURES
WELCOME
214-228-6742

WE BUY HOUSES
Any Area
Any Condition
Any Price Range
972-282-1898

MERCHANDISE

- Estate Sales
- Garage Sales
- Antiques, Art, Collectibles
- Appliances-Home
- Auction Sales
- Books, Magazines
- Building Materials
- China, Silver, Tableware
- Cooling, Heating Equip
- Crafts, Hobbies, Seasonal
- Electronics
- Farm Equipment
- Flooring, Carpet
- Furniture-Home

Legal Notices | Legal Notices | Legal Notices | Legal Notices | Legal Notices | Legal Notices | Legal Notices

CLIENT / DIVISION - Time Warner Cable/Texas
PUBLICATION – NTX-Dallas Morning News
ISSUE DATE – July 6, 2016

Time Warner Cable®

Dallas Morning News

Time Warner Cable's agreements with programmers to carry their services routinely expire from time to time. We are usually able to obtain renewals or extensions of such agreements, and carriage of programming services is discontinued only in rare circumstances. The following agreements with programmers are due to expire soon, and we may be required to cease carriage of one or more of these services in the near future.

Aspire	Music Choice channels 1900-1950	TeleN**
Fuse	Outdoor	The Weather Channel
Fuse HD	Outdoor HD	The Weather Channel HD
GolTV**	Pivot	TV One
GolTV HD**	POP (Greenville)	You Too

** Excludes Greenville

† Greenville Only

In addition, from time to time we make certain changes in the services that we offer in order to better serve our customers. The following changes are planned:

ADD:

EVINE Live to Digital Standard TV Channel 38.

QVC HD to Starter TV Channel 12/480

MOVE:

SEC Alt will move from channel 385 to channel 391.

There is no change in service level.

EVINE Live to Digital Standard TV Channel 487 from Variety Pass Channels 487.

DELETE:

ESPN College Extra 1-8 from TWC Sports Pass Channels 392-399

CHANGE:

WGN America may be repositioned from Starter TV Channels 25/126 to Standard TV Channels 25/126.

The new services listed below cannot be accessed on CableCARD-equipped Unidirectional Digital Cable Products purchased at retail without additional, two-way capable equipment.

None at this time

* HD Television and HD set-top box required to receive HD service.

**Excludes Greenville

† Greenville Only

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Antiques, Art, Collectibles

Van Cliburn Autograph My 2005 Black Steinway Upright Piano/ One Owner, / Best Offer/ (469) 707-3099

CASH FOR COMICS & TOYS
1940-1970's. Older the better. Ed 410-262-4103

Building Materials

HALIBURTON SALVAGE
5 ACRES of bldg materials. DOOR FACTORY including CUSTOM doors. Laminate flooring 69¢ sf. Come on by!
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20X50...$4000 $14600 turnkey
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Can erect bldg & pour slab
For Pics/Brochure & Est
(214) 642-2023

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WOOD BUILDINGS
(Unfinished inside)

12x16	$2,295
14x24	$4,195
16x32	$4,795
24x28	$7,895
30x40	$13,500

(built on site) 214-557-6415

LEGAL BIDS & NOTICES

- Bankruptcy, Court Sales
- Bids and Proposals
- Legal Notices

Bids & Proposals

Dallas Independent School District

NOTICE TO PROPOSERS

Sealed proposals for CY 204758 Workers' Compensation Legal Representation will be received by the Dallas Independent School District Procurement Services Department, 3700 San Jacinto, Dallas, TX 75204 until 2:00 P.M. on August 15, 2016. The proposal document can be obtained by downloading it from the Dallas ISD website homepage at

Bids & Proposals

Workers' Compensation Legal Representation

Closing Date: 08/15/2016

Closing Time: 2:00 PM

Buyers Initials: CY

The right is reserved to reject any or all proposals and to waive technicalities.

The Dallas Independent School District is committed to the ideals of equal opportunity in all its business endeavors.

It is the goal of the Dallas Independent School District that at least 30% of the work performed under each contract will be provided by minority or woman-owned business enterprises.

PO #1265-6731

CITY OF DALLAS CONSTRUCTION ADVERTISEMENT FOR BIDS

Sealed bids will be received at the Office of

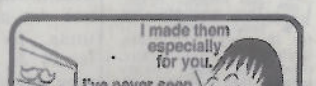
Bids & Proposals

Boulevard, Rm. 313 Dallas, Texas 75203 Plans/Blue Prints and Specifications will be available for review and/or purchase on Thursday, June 23, 2016 at 320 East Jefferson Boulevard, Rm. 307 Dallas, Texas 75203 Department Contact: Horace Pizzarello, PE (214) 948-5350, horacio.pizzarello@dallascityhall.com Bid Due Date: Friday, July 8, 2016 Bid Opening Date: Friday, July 8, 2016

JUMBLE

THAT SCRAMBLED WORD GAME by David L. Hoyt and Jeff Knurek

Unscramble these four Jumbles, one letter to each square, to form four ordinary words.



Quiero comprar

WE BUY HOUSES AND HOUSE NOTES
PAY CASH
FORECLOSURES WELCOME
214-228-6742

WE BUY HOUSES
Any Area
Any Condition
Any Price Range
972-282-1898

ANUNCIOS

Arrendamientos para caza y pesca

Hunt on 17,200 ac. lease.in San Angelo, Texas. This property has been MLDP 111 for 10 years. Has trophy whitetail deer, turkey, dove and quail. Luxury lodge that sleeps 14. $13.00/acre. Contact Randy at 830-570-7323.

Avisos - Personales

Auditions for Best HipHop Dancers! Call for details.
682-551-0446

MASCOTAS Y GANADO

Due to potential misuse/abuse of pets, *The Dallas Morning News* suggests that advertisers charge a minimal fee for their pets. Every life has a value. Also, due to health risks to the pets, we recommend puppies and kittens are at least 8-12 weeks old before they are sold. Use caution when responding to pet ads that involve unusual payment plans or require long-distance shipping. Find your pet from a trustworthy source. If purchasing from a private party or breeder, ask to see where the pets live to ensure the environment is a clean and healthy one. Reputable breeders will almost always provide detailed genealogical information and a health guarantee. You are encouraged to report suspected inhumane conditions and animal abuse/neglect to the Humane Society and your local authorities.

Perros

2 Reg. male English Cocker Spaniel pups for sale. $600/ea. Born 5/20/16. Hunters. Call 940-733-6257.

AKC Vizsla pointer bird dogs, 5 males/3 Female born 4/21. Tail docked dewclaws removed wormed
940-391-2620

Australian Shepherd Toys M/F, All Colors, Reg. Born 05/08/16
patnpaints2002@yahoo.com
580-504-0585

Beautiful Beagle puppies, M/F, shots & wormed, reg'd, tricolor, $250,
469-323-1291

English Bulldog puppies 10 wks old, s/w vet check UTD, 1,200 each call or text 214-794-3067 for info and pictures.

German Shepherds, AKC, 4 Months old, Champion Bloodline, UTD Shots, Very Showable for Conformation, Dallas Area.
512 672-9891

HAVANESE PUPPIES! Hand Delivered Nationwide! AKC. Best health guar. Home raised, Vet checked,!
www.noahslittleark.com
469-232-2955

Perros

Labradoodle Cream or Black, beautiful, no shed puppies first shots & wormed 700.00 cash or c/c
214-564-2094

Military/Firefighter discount.Silver Labs/Labradoodles Black/chocolate www.korkyslabs.com.Text/Call (903)519-3667,Cedar Creek Lake Area .

Mini Aussie Pups Ch. Sired, Genetic Testing, Health Guarantee. rikashaykennels.com
$500-1200 405-207-1167

Siberian Husky Pups AKC CH Bloodline. Blue Eyes, Beautiful! Shots & Wormed. $500
903-882-4349 or 903-253-3408

Tiny Teacups,Baby face Maltese,Yorkie, Morkie, Daisy, Shih Tzu, MaltiPoo, Chihuahua, Poodle, poms, French Bulldo. Easy finance payments Dallas/arland TexasTeacups.com
469-232-3030

Vizsla Puppies Champ. Bloodline, First shots, health guaranteed. 7 wks. M/F. $700
903-821-7426 or 903-564-7387

YORKIES, AKC, parti & regular colors, quality pups, health guar, $450 & up. (214) 676-2385 or visit shimmertimeyorkies .com

MERCANCÍA

Antigüedades, arte y artículos de colección

Van Cliburn Autograph My 2005 Black Steinway Upright Piano/ One Owner, / Best Offer/ (469) 707-3099

Boletos – Deportes/ Entretenimiento

ALL EVENTS - Buy/Sell (214) 613-1113 We Buy Seat Options www.CompleteTickets.com Rangers / MLB Tickets Cowboys / NFL Tickets Concert / Theater Tickets Local / National

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Cowboys Seat Options & Suite Leases for ALL DFW teams. Email *robert.smith@soldoutsports.com*

DISCOUNT AIRFARE
WE BUY MILES / VIP'S
972-262-2218

El Departamento de Transporte de Texas (TxDOT), en asociación con la Administración Federal de Ferrocarriles (FRA), realizará una serie de reuniones públicas para tratar el Estudio de Tren de Pasajeros entre Texas-Oklahoma - CSJ nombre: 8300-00-018:

Martes 9 de agosto de 2016
Oficina de TxDOT del Distrito de Laredo, 1817 Bob Bullock Loop, Laredo, TX 78043
Sala de reuniones grande
Casa abierta: 5:30 p.m.
Presentación: 6:00 p.m.

Miércoles 10 de agosto de 2016
TxDOT del Distrito de Austin - 7901 N. I-35 Austin, TX 78753
Edificio 7, sala de reuniones del distrito
Casa abierta: 5:30 p.m.
Presentación: 6:00 p.m.

Jueves 11 de agosto de 2016
Consejo de Gobiernos del Centro-Norte de Texas (NCTCOG)
616 Six Flags Drive Arlington, TX 76011
Sala del Consejo de Transporte
Casa abierta: 5:30 p.m.
Presentación: 6:00 p.m.

El objetivo de la reunión es presentar la Declaración de Impacto Ambiental Preliminar (DEIS) correspondiente al Estudio de Tren de Pasajeros entre Texas-Oklahoma y recibir los comentarios del público. En todas las reuniones, se exhibirán imágenes informativas a las 5:30 p.m., y la reunión formal comenzará a las 6:00 p.m.

El Estudio de Tren de Pasajeros entre Texas-Oklahoma es un estudio de planificación para determinar si es viable desarrollar un servicio de tren de pasajeros en un corredor de 850 millas que se extendería desde la ciudad de Oklahoma, en el estado homónimo, hasta el sur de Texas. El estudio analizó varias opciones de servicios de pasajeros que abarcan desde el servicio convencional que ofrece Amtrak hasta un verdadero servicio de tren de pasajeros de alta velocidad. El área del estudio se dividió en tres segmentos: el segmento norte, desde la ciudad de Oklahoma hasta Dallas/Fort Worth; el segmento central, desde Dallas/Fort Worth hasta San Antonio, y la sección sur, desde San Antonio hasta el sur de Texas. Mediante el estudio, se determinó el impacto ambiental, se identificaron los tipos de servicios propuestos y se elaboraron planes de desarrollo de servicios para cada uno de los tres segmentos. Como parte de este estudio, se desarrollaron adecuaciones conceptuales para determinar los costos de construcción, operación y mantenimiento, y los cálculos de ingresos correspondientes a cada segmento.

La Declaración de Impacto Ambiental Preliminar (DEIS) y el resto de la información relacionada con el estudio se encuentran en el expediente y están disponibles para su revisión de lunes a viernes, entre las 8:00 a.m. y las 5:00 p.m., en la Oficina de TxDOT del Distrito de Laredo, 1817 Bob Bullock Loop, Laredo, TX 78043, Departamento Ferroviario de TxDOT - 125 E. 11st Street Austin, TX 78704, y en el Consejo de Gobiernos del Centro-Norte de Texas (NCTCOG) - 616 Six Flags Drive Arlington, TX 76011. Información también está disponible en http://www.txdot.gov/inside-txdot/projects/studies/statewide/texas-oklahoma-rail.html y esta información también estará disponible para su revisión en las reuniones.

Todos los ciudadanos interesados están invitados a asistir a estas reuniones públicas. Se requiere que el público presente sus comentarios sobre este estudio de forma oral y por escrito; dichos comentarios se pueden presentar durante un plazo de 45 días corridos después de la reunión. Los comentarios por escrito se pueden entregar en persona o enviar por correo al Departamento Ferroviario de TxDOT, a nombre del Sr. Mark Werner a 125 E. 11st Street Austin, TX 78704. Para formar parte del registro oficial de la reunión, los comentarios se deben recibir como máximo el lunes 29 de agosto de 2016.

La reunión pública será en inglés. Las personas interesadas en asistir a la reunión que tengan necesidades especiales de comunicación o adaptación, o que necesiten un intérprete deben comunicarse con el Sr. Mark Werner al (512) 486-5137. Las solicitudes deben realizarse al menos dos días antes de la reunión pública. Se realizarán todos los esfuerzos razonables para satisfacer estas necesidades. Si tiene preguntas o inquietudes sobre el estudio, puede comunicarse con el Sr. Mark Werner al (512) 486-5137.

STATE OF TEXAS
COUNTY OF TARRANT

Before me, a Notary Public in and for said County and State, this day personally appeared Christine Lopez, Advertising Representative for the Star-Telegram, published by the Star Telegram, Inc. at Fort Worth, in Tarrant County, Texas and distributed in other surrounding Counties; and who, after being duly sworn, did dispose and say that the following clipping of an advertisement was published in the above named paper on the following dates:

Sat July 9, 2016

Signed _____

Subscribed and sworn to before me, this the 10 day of August 20 16

Notary Public _____
Tarrant County, Texas

LESLIE BUCKLEY
MY COMMISSION EXPIRES
SEPTEMBER 24, 2017
NOTARY ID: 128058260

NOTICE OF PUBLIC HEARING

A Public Hearing is scheduled before the River Oaks Planning & Zoning Commission on Monday, July 25, 2016 at 7:00 P.M. and before the City Council at 7:00 P.M. on Tuesday, July 26, 2016 in the City Council Chambers located at 4900 River Oaks Blvd., River Oaks, Texas in order to receive citizen comments on the proposed property re-plat in the Forest Acres Addition being 1.157 acres of land as requested by the record owner(s), Bradley Smith Inge and Pam Craig Inge, re-platting the existing lot 9A otherwise known as 812 Roberts Cut Off into 3 separate individual residential Lots in an R-1 Single-Family Zoning District. (Zoning Case # PZ 2016-05).

Owner: Bradley Smith Inge and Pam Craig Inge
Applicant: Brad Inge
Address: 812 Roberts Cut Off Rd.
Legal Description: Lot 9A, Forest Acres Addition
Zoning Case # PZ2016-05
Reason: Applicant is requesting to re-plat property in order to possibly construct 3 new homes each one on individually platted lots in an R-1 Single-Family Zoning District.
For more info please contact the River Oaks Zoning Administrator at 817-626-5421, ext. 324.

NOTICE OF Public Hearing

The Texas Department of Transportation (TxDOT), in partnership with the Federal Rail Administration (FRA) will conduct a series of public hearings on the Texas-Oklahoma Passenger Rail Study - CSJ number: 8300-00-018:

Tuesday, August 9, 2016
TxDOT Laredo District Office,
1817 Bob Bullock Loop,
Laredo, TX 78043
Large Meeting Room
Open House: 5:30 p.m.
Presentation: 6:00 p.m.

Wednesday, August 10, 2016
TxDOT Austin District-
7901 N. I-35 Austin, TX 78753
Big 7, District Hearing Room
Open House: 5:30 p.m.
Presentation: 6:00 p.m.

Thursday, August 11, 2016
North Central Texas Council of Governments (NCTCOG)
616 Six Flags Drive
Arlington, TX 76011
Transportation Council Room
Open House: 5:30 p.m.
Presentation: 6:00 p.m.

The purpose of the hearing is to present the Draft Environmental Impact Statement (DEIS) for the Texas-Oklahoma Passenger Rail Study and to receive public comment. At all hearings, displays will be available for viewing at 5:30 P.M. with the formal hearing commencing at 6:00 P.M.

The Texas-Oklahoma Passenger Rail Study is a planning level study to determine the feasibility of developing passenger rail service in an 850 mile corridor running from Oklahoma City, OK to South Texas. The study looked at a range of passenger service options ranging from conventional Amtrak type service all the way up to true high-speed passenger rail service. The study area was broken down into three segments, the northern segment from Oklahoma City to Dallas/Fort Worth, a central segment running from Dallas/Fort Worth to San Antonio and the southern section from San Antonio to South Texas. The study determined the environmental impacts, identified proposed service types and developed service development plans for each of the three segments. As part of this study conceptual alignments were developed to determine construction, operation and maintenance costs and revenue estimates for each segment.

The Draft Environmental Impact Statement (DEIS) and other information will be available for review at the hours of 8:00 a.m. and [illegible] p.m. at the TxDOT Laredo District Office-1817 Bob Bullock Loop, Laredo, TX 78043, TxDOT Rail Division- 118 East Riverside, Austin, TX 78704 & the North Central Texas Council of Governments (NCTCOG) - 616 Six Flags Drive Arlington, TX 76011. Project information is available at http://www.txdot.gov/inside-txdot/projects/studies/statewide/texas-oklahoma-rail.html and information will be available for inspection at the hearings.

All interested citizens are invited to attend these public hearings. Verbal and written comments from the public regarding this study are requested and may be presented for a period of 45 calendar days following the hearing. Written comments may be submitted either in person or by mail to the TxDOT Rail Division, Mr. Mark Werner 125 E. 11st Street Austin, TX 78704. Comments must be received on or before Monday, August 29, 2016 in order to become part of the official hearing record.

The Public Hearing will be conducted in English. Persons interested in attending the hearing who have special communication or accommodation needs, or need an interpreter, are encouraged to contact Mr. Mark Werner at (512) 486-5137. Requests should be made at least two days prior to the public hearing. Every reasonable effort will be made to accommodate these needs. If you have general questions or concerns regarding the study, you may contact Mr. Mark Werner at (512) 486-5137.

NOTICE OF PUBLIC SALE

Pursuant to Chapter 59, Texas Property Code, 360 Storage Gtr, 1501 North Watson Rd, Arlington, Tx 76006 will hold a public auction of property being sold to satisfy landlords' lien at 10:30 am July 27, 2016 at the above address. Property will be sold to highest cash bidder. Seller reserves the right to not accept any bid and to withdraw property from sale. Property in each space may be sold item-by-item, in batches, or by the space. Property includes contents in spaces of following tenants: Benny Martinez, furn; Deborah Hill, hhld; Waylon Bodley, Misc; Brittany K. Bills, hhld; Yvette K. Pringle, misc; Ismat Abubaker, hhld; Jeffery L. Havas, Misc; Cedric Kabeya, hhld; Gabriela Comacho, hhld. Call Bill 817-640-4151

NOTICE OF SCHEDULED PUBLIC HEARINGS
OF THE CITY OF NORTH RICHLAND HILLS
PLANNING AND ZONING COMMISSION
Thursday, July 21, 2016 7:00 p.m.
CITY COUNCIL
Monday, August 8, 2016 7:00 p.m.

Notice is hereby given to all interested persons that the Planning and Zoning Commission of the City of North Richland Hills, Texas will conduct a public hearing on Thursday, July 21, 2016 at 7:00 P.M. at City Hall, 4301 City Point Drive, North Richland Hills, Texas AND, if recommended for approval, the City Council of the City of North Richland Hills, Texas will conduct a public hearing on Monday, August 8, 2016 at 7:00 P.M. in the City Council Chambers, 4301 City Point Drive, North Richland Hills, Texas concerning the following items:

City of North Richland Hills

SUP 2015-03 A Public Hearing is being held to consider a request from Dwayne Caraway for a Special Use Permit for a 100 foot Communication Tower located at 8321 Davis Boulevard.

403.8(f)(2)(viii), the following companies are located in the City of Forest Hill and have significantly violated, during the past twelve months, pretreatment requirements contained in regulations governing industrial wastes.

Facilities discharging wastewater into the
City of Fort Worth Village Creek Wastewater Treatment Plant
Advanced Blending, Inc. 5230 SE Loop 820 Forest Hill, TX 76140
Roberto Duenes
Public Works Superintendent
City of Forest Hill
3219 California Parkway
Forest Hill, TX 76119

PUBLIC NOTICE

In accordance with the U.S. Environmental Protection Agency rule published as 40 CFR 403.8(f)(2)(viii), the following companies are located in the City of Saginaw and have significantly violated, during the past twelve months, pretreatment requirements contained in regulations governing industrial wastes.

Facilities discharging wastewater into the City of Fort Worth Village Creek Wastewater Treatment Plant
Qualawash Holdings, LLC (Quala)
700 Minton Road Saginaw, TX 76131
Randy Newsom
Public Works - Operations Superintendent
City of Saginaw
PO Box 79070
Saginaw, TX 76179

STORAGE UNITS to be sold pursuant to Chapter 59 of the Texas Property Code. The Property is being sold to satisfy a landlord's lien on Wednesday July 13th, 2016 at 1:00 pm, at All Storage, 715 W. Harris Rd., Arlington, Texas 76001.

Inventory of units to be sold
Household items:
Sonya Reed
Eric Botchway
Ariel Perez-Cuero
Evonne McDaniel
Ronald Redden
Timothy Dunlap
Mike Belanski
Candelario Aguilar
Thelma Ashley
Armando Arenivar
Craig King

STATE OF TEXAS
COUNTY OF TARRANT

Before me, a Notary Public in and for said County and State, this day personally appeared Christine Lynch, Advertising Representative for the Star-Telegram, published by the Star Telegram, Inc. at Fort Worth, in Tarrant County, Texas and distributed in other surrounding Counties; and who, after being duly sworn, did dispose and say that the following clipping of an advertisement was published in the above named paper on the following dates:

Sat July 9, 2016

Signed Christine Lynch

Subscribed and sworn to before me, this the 10 day of August 2016

Notary Public Leslie Buckley
Tarrant County, Texas

LESLIE BUCKLEY
MY COMMISSION EXPIRES
SEPTEMBER 24, 2017
NOTARY ID: 128058260

Venta de Garage Area 1

76021 - 3001 Magnolia Lane, Saturday July 9th - 8AM - 4PM

76107 - 4836 Birchman, Arl Hts Fri-Sat 8AM - 1PM
Good Stuff, Vintage, Antique & Unique

76116 - ESTATE SALE! 7308 Overhill Rd., Friday/Saturday 9AM-4PM

76126 - 9928 Wandering Way St, Thursday, Friday, Saturday 8 AM - 3 PM

76132 - 7020 Brookvale Road, Saturday9AM - 3PM

76135 - 5824 Fair Wind Dr., Saturday 7am-3pm ONLY. MULTI FAMILY GARAGE SALE!

76137 - 4109 Judith Way*SAT.7/9* *MLTI-FMLY*FURN.*APPL* *CLOTHES*SHOES &MORE!

76179 - Moving sale big items great prices5720 MountainBluff Dr.FTW

76179 - 3213 Mint Springs St., Friday, Saturday8:00-4:00

76180 - 6137 Cliffbrook Drive, Saturday8AM - 1PM. Women's bikes, Christmas dishes, Lenox China, furniture, drapes, home decor, quilts , pillows, clothes High quality items:

76182 - 8554 Kensington Ct. NRH Sat/Sun 8am-4pm Moving Sale!

76244 - 4804 Bristol Trace Ct, Saturday 8am - 4. Multi family, low prices, furniture, kid's clothes, tools, misc.

76691 - 1564 Tokio Loop West, TX, Sat. & Sun. 7/9-7/10. Over 15 pcs. Oak & walnut furniture. I-35 to West, FM1858 to Tokio.

Armas

WACO GUN SHOW
SAT. Jul 9, 9a-5p
SUN. Jul 10, 10a-4p
Extraco Events Center
4601 Bosque Blvd
817-732-1194
PremierGunShows.com

ALLEN GUN SHOW
SAT. Jul 16, 9a-5p
SUN. Jul 17, 10a-4p
Allen Event Center
200 E. Stacy Road
817-732-1194
PremierGunShows.com

SPRINGFIELD 1911 $710.00 floron2370@att.net 817-578-8607

Cesped y Jardin

WE POWDER COAT PATIO FURNITURE LONGHORN 817-759-2224

Instrumentos Musicales

RARE FIND! Hinze 1908 Cabinet Grand Upright, $1850 Serial No 56126 jasonfphill@gmail.com 971-221-1761

Equipo Deportivo y de Ejercicio

WE BUY GOLF BALLS
682-552-7076

Quiero Comprar ó Intercambiar

WE BUY Cowboys Season Tickets psisource.com 800-252-8055

Perros

Ofertas y Propuestas

REQUEST FOR Proposals
Cooperative Transit Vehicle Security Camera Systems

The North Central Texas Council of Governments (NCTCOG) is requesting proposals from qualified vendors to provide and install onboard security camera systems and associated hardware to support onboard transit vehicle security for rural transit providers receiving Federal Transit Administration funding from NCTCOG. The selected vendor will provide all needed parts, labor, materials, software, hardware, and technical support as necessary to equip approximately 170 vehicles with a complete and functional camera system per the conditions of the RFP. The selected vendor shall accommodate equipment installation on an agreed upon schedule for each participating transit provider within the contract term and will be responsible for all equipment installation, testing, and technical support activities.

Proposals must be received no later than 5:00 pm, on Friday, August 12, 2016, to Karina Maldonado, Transportation Planner III, North Central Texas Council of Governments, 616 Six Flags Drive, Arlington, Texas 76011. Copies of the Request for Proposals (RFP) will be available at www.nctcog.org/rfp by the close of business on Friday, July 8, 2016.

NCTCOG encourages participation by disadvantaged business enterprises and does not discriminate on the basis of age, race, color, religion, sex, national origin, or disability.

Avisos Legales

AVISO DE reunión pública

El Departamento de Transporte de Texas (TxDOT), en asociación con la Administración Federal de Ferrocarriles (FRA), realizará una serie de reuniones públicas para tratar el Estudio de Tren de Pasajeros entre Texas-Oklahoma - CSJ nombre: 8300-00-018:

Martes 9 de agosto de 2016
Oficina de TxDOT del Distrito de Laredo, 1817 Bob Bullock Loop, Laredo, TX 78043
Sala de reuniones grande
Casa abierta: 5:30 p.m.
Presentación: 6:00 p.m.

Miércoles 10 de agosto de 2016
TxDOT del Distrito de Austin - 7901 N. I-35 Austin, TX 78753
Edificio 7, sala de reuniones del distrito
Casa abierta: 5:30 p.m.
Presentación: 6:00 p.m.

Jueves 11 de agosto de 2016
Consejo de Gobiernos del Centro-Norte de Texas (NCTCOG)
616 Six Flags Drive Arlington, TX 76011
Sala del Consejo de Transporte
Casa abierta: 5:30 p.m.
Presentación: 6:00 p.m.

El objetivo de la reunión es presentar la Declaración de Impacto Ambiental Preliminar (DEIS) correspondiente al Estudio de Tren de Pasajeros entre Texas-Oklahoma y recibir los comentarios del público. En todas las reuniones, se exhibirán imágenes informativas a las 5:30 p.m., y la reunión formal comenzará a las 6:00 p.m.

El Estudio de Tren de Pasajeros entre Texas-Oklahoma es un estudio de planificación para determinar si es viable desarrollar un servicio de tren de pasajeros en un corredor de 850 millas que se extendería desde la ciudad de Oklahoma, en el estado homónimo, hasta el sur de Texas. El estudio analizó varias opciones de servicios de pasajeros que abarcan desde el servicio convencional que ofrece Amtrak hasta un verdadero servicio de tren de pasajeros de alta velocidad. El área del estudio se dividió en tres segmentos: el segmento norte, desde la ciudad de Oklahoma hasta Dallas/Fort Worth; el segmento central, desde Dallas/Fort Worth hasta San Antonio, y la sección sur, desde San Antonio hasta el sur de Texas. Mediante el estudio, se determinó el impacto ambiental, se identificaron los tipos de servicios propuestos y se elaboraron planes de desarrollo de servicios para cada uno de los tres segmentos. Como parte de este estudio, se desarr-

Avisos Legales

color, origen étnico, sexo, discapacidad o edad en cualquiera de los programas, servicios o actividades requeridas, de acuerdo al Artículo VI del Acta de Derechos Civiles de 1964 (Title VI Of the Civil Rights Act Of 1964), enmendado con el Artículo IX de las Enmiendas Educativas de 1972), Acta de Discriminación por Edad de 1975 enmendada y la Sección 504 de la Enmienda del Acta de Rehabilitación de 1973.

4. El Distrito Escolar Independiente de Fort Worth tomará las medidas necesarias para asegurarse que la falta de conocimiento del idioma inglés no sea razón por la cual no pueda participar en alguno de los programas.
5. Para más información para saber más acerca de sus derechos o del proceso para someter una queja, comuníquese con el Coordinador del Artículo IX, Rufino Mendoza, Director de Personal , 100 North University Drive, Fort Worth, TX 76107, teléfono: (817) 814 2790 o con la Coordinadora de la Sección 504, June Davis, Directora de Programas Especiales, al (817) 814 2878.

Long Tide Homes

Casas disponibles a precios asequibles por Long Tide Homes, visita www.LongTide.com y oprimen Se Habla Español para ver la pagina en Español.

Casas nuevas y pre-usadas ubicadas en Alvarado, Azle, Decatur, Farmersville, Gainesville, Granbury, Joshua, Springtown, Peaster, Rhome.

Long Tide Homes puede construir la casa de sus sueños en su propio solar.

Hable 817-330-4086

Hood County/Venta

NICE GRANBURY lot, 24 hr security, club house, By owner 817 313-3041

Johnson County Venta

BRAND NEW
Starlight Ranch, Godley
Phase 1, River, Trees, Views
1 Acre +, $46,000 and up
Godley ISD, County water
Highly restricted beautiful land
20 min to fort worth !
Call Jeff 817 524 5844

Open House

OWNER FINANCE/No Credit OK
4-4-3 Custom in 2008
6725 South Fork Dr, NRH
$18,900 Dn, $3,491 Mo.
www.jawhomes.com (817) 929-6295
Check Website For More Homes

Granjas,Tierras,

Cuellar working to develop high speed passenger rail in Laredo, South Texas

Posted: Wednesday, July 27, 2016 3:36 pm | *Updated: 3:56 pm, Wed Jul 27, 2016.*

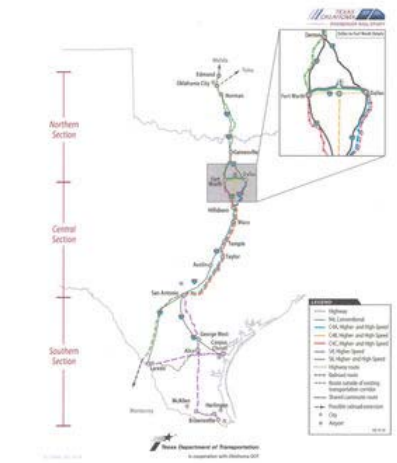
Special to the Times

Rep. Henry Cuellar, D-Laredo, announced Wednesday the Federal Railroad Administration and the Texas Department of Transportation's release of 10 service and route options for high-speed passenger rail service connecting Oklahoma City, Fort Worth, Austin, San Antonio, Laredo and South Texas.

The options are evaluated in the Draft Environmental Impact Statement. This is a key step forward on a project Cuellar has been working on since 2008.

This study evaluated the feasibility of developing passenger rail service for the 850-mile north-south corridor from Oklahoma City to South Texas. The study is separated into three segments:

- Northern Section: Oklahoma City to Dallas and Fort Worth
- Central Section: Dallas and Fort Worth to San Antonio
- Southern Section: San Antonio to South Texas.



Courtesy / TxDOT

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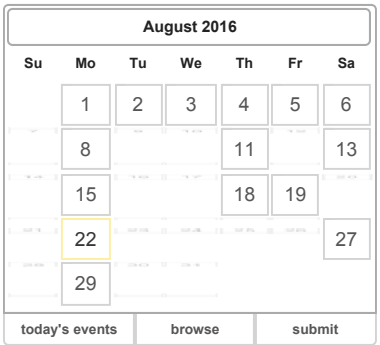

The goal of the study was to identify routes that could meet future intercity travel demands, improve rail facilities, reduce journey times and improve connections with regional public transit service.

In 2008, Cuellar authored an amendment to H.R. 6003, the "Passenger Rail Investment and Improvement Act of 2008," which included South Texas.

In fiscal year 2012, FRA awarded a $5.6 million grant to TxDOT to fund a study of new and improved passenger rail service to meet future intercity travel demand, improve rail facilities, reduce travel times, and improve connections with regional public transit services as an alternative to bus, plane, and private auto travel.

This DEIS, a planning level study, took into account the potential effects establishing a passenger rail could have on environmental, economic, and social resources, as well as the impact on travel demand and transportation. Based on these analyses, TxDOT selected preferred routes and service types, conventional rail, higher-speed rail or high-speed rail, for each section.

In South Texas, two routes were selected for further study.

The first route would begin in San Antonio and travel south on a new alignment outside existing transportation corridors to a station near the Laredo-Columbia Solidarity Bridge, then cross on a new railway bridge to join a new rail line which would continue to Monterrey, Nuevo Leon, Mexico.

This route has the potential for high-speed rail, operated at top speeds of 180-220 mph.

The second route would begin in San Antonio and travel southeast to Alice. At Alice, the route would divide into three legs. The first leg would travel to San Diego, Texas; then to the Laredo area. The second leg would travel south along abandoned railroad tracks to McAllen and east to Harlingen and Brownsville. The third leg would travel east along the KCS Railway to Corpus Christi.

This route has the potential for Higher-speed rail and would be operated at top speeds of up to 110 to 125 mph.

A public hearing will be held in Laredo on Aug. 9 at 5:30 p.m. at the TxDOT Laredo District Office, 1817 Bob Bullock Loop. TxDOT and FRA will take into account public input and subsequently issue a Final EIS and Record of Decision. Here is a link to the study. The Final EIS is projected to be released by early 2017.

Following the conclusion of this study, a developer could conduct a tier 2 study for the preferred routes. A tier 2 study would provide project-level analyses, detailed design, alignments and refine cost estimates. These studies will give investors the information necessary to determine if a passenger rail is a worthy investment. A Record of Decision on a Tier 2 would allow the developer (State or Private) to begin final design, construction and operation of the service.

"This is a critical step forward for high-speed rail linking major trade and energy centers in South Texas with metropolitan areas further north, something I have long-supported,"Cuellar said. "This study outlines the routes that FRA and TxDOT consider high speed rail is environmentally feasible, and opens the door for the involvement of investors in the development of high-speed rail. It is my hope that this project will continue moving forward and that we will soon see high-speed rail not only from Oklahoma City to South Texas, but that Texans will eventually have the ability to travel by rail from San Antonio to Mexico."

More than 10 million people currently live along the 850-mile corridor, which is expected to grow by 39 percent in Texas by 2035. As a state with some of the largest metropolitan areas in the nation, spread out over hundreds of miles, Texas is now in high demand for alternative modes of transportation. Since the majority of the state's population is centered in the eastern half of state, along I-35 stretching into Oklahoma City, the highways have experienced increased congestion.

Posted in Local News on *Wednesday, July 27, 2016 3:36 pm.* *Updated: 3:56 pm.*

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Laredo home tours


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Today's E-Edition

Homes Cars

Homes

- Trials set for 6 defendants accused of killing man in south Laredo
- As the number of freestanding ERs grows, so does scrutiny
- UISD completes new security stations at campuses
- Zapatan wins international pageant title
- DPS reminds drivers to obey traffic laws as new school year begins

- The six dirtiest restaurants in Laredo according to July 2016 health department inspections
- 17-year-old allegedly threatened to kill person if they did not pay $400 for drugs
- Man allegedly dragged girlfriend by her hair because he was jealous
- Man arrested for furnishing alcohol to four teenagers
- Laredo's plastic bag ban ruled unenforceable by Fourth Court of Appeals

NORTH LAREDO, near Country Club, 4bed, 2bath, 2 stories, 2500sqft,double

$1,700

Updated: 4:05 am

1508 Lyon, 2bed/ 1bath $700, incl. water & gas, close

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Alexander avenged its only loss and picked up a tournament title in the process Saturday.
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lmtonline.com
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E-mail: times@lmtonline.com
Address: 111 Esperanza Drive
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LOCAL

Courtesy photo / Laredo Police Department

Derick Gonzalez, 17, Rene Alvarado, 16, Alberto Duarte, 17, and Gabriel Rodriguez, 15, pose for a picture during a recent explorer program statewide competition held at University of Texas at Arlington. The youngsters are part of the Laredo Police Department Explorer Post 468, a career-oriented program that gives the youth an insight of law enforcement.

LPD explorers earn state honors

By César G. Rodriguez
LAREDO MORNING TIMES

The Laredo Police Department Explorer Post 468 returned with honors recently from a statewide competition held at the University of Texas at Arlington.

LPD explorers placed second in traffic stops, third in officer down-rescue and third in burglary in progress.

Fifty-six teams from Texas law enforcement agencies competed in a series of scenarios and were graded by veteran police officers, said Sgt. Robert S. Medina, of the LPD community relations unit.

"These explorers train year-round with Laredo Police Department with aspirations to someday become a law enforcement officer. ... Police Explorers is a career-oriented program that gives young adults the opportunity to explore a career in law enforcement by working with local law enforcement agencies," Medina said.

LPD Officers Karla Pruneda and Juan Valadez are explorer advisers and train the youngsters on a weekly basis.

"The Laredo Police Department is very proud of these young people as they train hard and are very dedicated. Congratulations to all of them for their latest accomplishments," Medina said.

"The explorer program is a huge success mainly because of (LPD) Chief Ray Garner's overwhelmingly support."

For more information on the explorers program, call the community relations unit at 956-727-6590.

LCC tuition and payments are due August 11

SPECIAL TO THE TIMES

Students who have registered or intend to register soon for the fall semester at Laredo Community College should note the upcoming tuition payment deadline of Thursday.

The tuition payment deadline applies to any student who registers between April 11 and Aug. 11. They will need to pay all tuition and fees on Aug. 11 in person before 6 p.m. or online via PASPort before 11 p.m.

South Campus students should note that the Bursar's Office has temporarily relocated to B223 on the second floor of the Senator Judith Zaffirini Library due to renovations. Because of reduced space, students are advised to pay before the deadline to avoid long lines on Aug. 11.

Those who miss the payment deadline will be dropped from their classes and will have to register again.

LCC offers a tuition installment payment plan for students who cannot pay all at once.

Enrolling is as easy as logging on to PASPort and paying with a debit/credit card, or students can visit the Bursar's Office in room 101 of the Lerma Peña Building at the Fort McIntosh Campus or the Zaffirini Library at the South Campus to enroll in person on or before Aug. 11.

Fifty percent of the student's total tuition and fees is due at the time of enrollment, plus a $25 service fee. The remaining 50 percent is divided into two equal payments due on Sept. 23, 2016 and Oct. 28, 2016.

Those who miss the payment deadline will be dropped from their classes and will have to register again.

Before students can register for courses, they need to get advised.

Advising for new students and those who have not declared a major is available throughout the week at the LCC Student Success Center at both campuses, Monday through Thursday from 8 a.m. to 6 p.m. and Friday from 8 to 11 a.m.

Those with a declared major can call their instructional department to make an appointment for advising.

Those students who cannot make it to campus during the week can take advantage of Saturday Services on Aug. 6 and Aug. 13 from 10 a.m. to 3 p.m. at the Lerma Peña Building at the Fort McIntosh Campus. Students can get advised, register for classes or get information on financial aid.

The first day of classes for the fall semester is Monday, Aug. 22.

For more information about tuition payments, call the LCC Bursar's Office at 721-5112 (Fort McIntosh Campus) or 794-4212 (South Campus).

Cuellar unveils route, service options

SPECIAL TO THE TIMES

Cuellar

Rep. Henry Cuellar, D-Laredo, recently announced the Federal Railroad Administration and the Texas Department of Transportation's release of 10 service and route options for high-speed passenger rail service connecting Oklahoma City, Fort Worth, Austin, San Antonio, Laredo and South Texas.

Last week, the Texas Department of Transportation will seek public input from the Laredo community to include in the study's draft environmental impact statement for the Texas-Oklahoma Passenger Rail Study. The study is to determine the feasibility of developing passenger rail service between Oklahoma City and South Texas.

The public hearing will be held at 5:30 p.m. at the TxDOT Laredo District Office, 1817 Bob Bullock Loop.

In the spirit of continuing with an open and transparent process, the hearing offers a chance for citizens to review and provide input on the study, TxDOT said. This public comment period has been part of the ongoing public involvement process since the study first began.

For those unable to attend the hearing, TxDOT will accept formal comment on the study until Aug. 29 online at http://bit.ly/toprscontact; or by sending written comments to TxDOT Rail Division, Attn: Mark Werner, 125 E. 11th St. Austin, TX 78704.

The draft environmental impact statement is a key step forward on a project Cuellar has been working on since 2008.

"This is a critical step forward for high-speed rail linking major trade and energy centers in South Texas with metropolitan areas further north, something I have long-supported," Cuellar said. "This study outlines the routes that (the Federal Railroad Administration) and TxDOT consider high speed rail is environmentally feasible, and opens the door for the involvement of investors in the development of high-speed rail.

"It is my hope that this project will continue moving forward and that we will soon see high-speed rail not only from Oklahoma City to South Texas, but that Texans will eventually have the ability to travel by rail from San Antonio to Mexico."

This study evaluated the feasibility of developing passenger rail service for the 850-mile north-south corridor from Oklahoma City to South Texas. The study is separated into three segments:

- Northern Section: Oklahoma City to Dallas and Fort Worth
- Central Section: Dallas and Fort Worth to San Antonio
- Southern Section: San Antonio to South Texas.

The goal of the study was to identify routes that could meet future intercity travel demands, improve rail facilities, reduce journey times and improve connections with regional public transit service.

In 2008, Cuellar authored an amendment to H.R. 6003, the "Passenger Rail Investment and Improvement Act of 2008," which included South Texas.

In fiscal year 2012, the Federal Railroad Administration awarded a $5.6 million grant to TxDOT to fund a study of new and improved passenger rail service to meet future intercity travel demand, improve rail facilities, reduce travel times, and improve connections with regional public transit services as an alternative to bus, plane, and private auto travel.

This draft environmental impact statement, a planning level study, took into account the potential effects establishing a passenger rail could have on environmental, economic and social resources, as well as the impact on travel demand and transportation. Based on these analyses, TxDOT selected preferred routes and service types, conventional rail, higher-speed rail or high-speed rail, for each section.

South Texas routes

In South Texas, two routes were selected for further study.

The first route would begin in San Antonio and travel south on a new alignment outside existing transportation corridors to a station near the Laredo-Columbia Solidarity Bridge, then cross on a new railway bridge to join a new rail line which would continue to Monterrey, Nuevo Leon, Mexico.

This route has the potential for high-speed rail, operated at top speeds of 180-220 mph.

The second route would begin in San Antonio and travel southeast to Alice. At Alice, the route would divide into three legs. The first leg would travel to San Diego, Texas; then to the Laredo area. The second leg would travel south along abandoned railroad tracks to McAllen and east to Harlingen and Brownsville. The third leg would travel east along the KCS Railway to Corpus Christi.

This route has the potential for higher-speed rail and would be operated at top speeds of up to 110 to 125 mph.

More than 10 million people currently live along the 850-mile corridor, which is expected to grow by 39 percent in Texas by 2035. As a state with some of the largest metropolitan areas in the nation, spread out over hundreds of miles, Texas is now in high demand for alternative modes of transportation. Since the majority of the state's population is centered in the eastern half of state, along I-35 stretching into Oklahoma City, the highways have experienced increased congestion.

TxDOT hosting public hearing to seek input on route options for high-speed passenger rail

Posted: Monday, August 8, 2016 1:19 pm

Previous Next

Special to the Times

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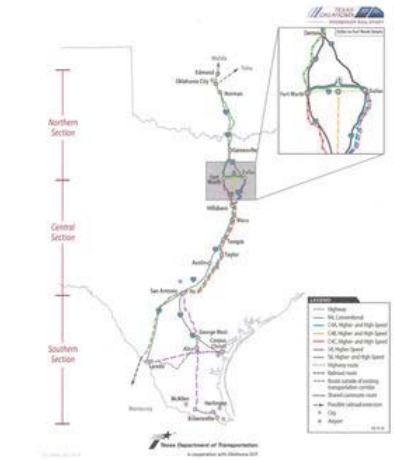

Courtesy / TxDOT

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Posted in Local News on *Monday, August 8, 2016 1:19 pm.*

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Notice of Public Hearing

The Texas Department of Transportation (TxDOT), in partnership with the Federal Rail Administration (FRA) will conduct a series of public hearings on the Texas-Oklahoma Passenger Rail Study - CSJ number: 8300-00-018.

Tuesday, August 9, 2016
TxDOT Laredo District Office,
1817 Bob Bullock Loop, Laredo, TX 78043
Large Meeting Room
Open House: 5:30 p.m.
Presentation: 6:00 p.m.

Wednesday, August 10, 2016
TxDOT Austin District- 7901 N. I-35 Austin, TX 78753
Big 7, District Hearing Room
Open House: 5:30 p.m.
Presentation: 6:00 p.m.

Thursday, August 11, 2016
North Central Texas Council of Governments (NCTCOG)
616 Six Flags Drive Arlington, TX 76011
Transportation Council Room
Open House: 5:30 p.m.
Presentation: 6:00 p.m.

The purpose of the hearing is to present the Draft Environmental Impact Statement (DEIS) for the Texas-Oklahoma Passenger Rail Study and to receive public comment. At all hearings, displays will be available for viewing at 5:30 P.M. with the formal hearing commencing at 6:00 P.M.

The Texas-Oklahoma Passenger Rail Study is a planning level study to determine the feasibility of developing passenger rail service in an 850 mile corridor running from Oklahoma City, OK to South Texas. The study looked at a range of passenger service options ranging from conventional Amtrak type service all the way up to true high-speed passenger rail service. The study area was broken down into three segments, the northern segment from Oklahoma City to Dallas/Fort Worth, a central segment running from Dallas/Fort Worth to San Antonio and the southern section from San Antonio to South Texas. The study determined the environmental impacts, identified proposed service types and developed service development plans for each of the three segments. As part of this study conceptual alignments were developed to determine construction, operation and maintenance costs and revenue estimates for each segment.

The Draft Environmental Impact Statement (DEIS) and other information relative to the study are on file and available for inspection Monday through Friday between the hours of 8:00 a.m. and 5:00 p.m. at the TxDOT Laredo District Office-1817 Bob Bullock Loop, Laredo, TX 78043, TxDOT Rail Division- 118 East Riverside, Austin, TX 78704 & the North Central Texas Council of Governments (NCTCOG) - 616 Six Flags Drive Arlington, TX 76011. Project information is available at http://www.txdot.gov/inside-tx-dot/projects/studies/statewide/texas-oklahoma-rail.html and information will be available for inspection at the hearings.

All interested citizens are invited to attend these public hearings. Verbal and written comments from the public regarding this study are requested and may be presented for a period of 45 calendar days following the hearing. Written comments may be submitted either in person or by mail to the TxDOT Rail Division, Mr. Mark Werner 125 E. 11st Street Austin,http://www.txdot.gov/inside-tx TX 78704. Comments must be received on or before

STATE OF OKLAHOMA,
COUNTY OF OKLAHOMA } SS.

Affidavit of Publication

Royce Parkhurst, of lawful age, being first duly sworn, upon oath deposes and says that she he is the Classified Legal Notice Admin of The Oklahoma Publishing Company, a corporation, which is the publisher of *The Oklahoman* which is a daily newspaper of general circulation in the State of Oklahoma, and which is a daily newspaper published in Oklahoma County and having paid general circulation therein; that said newspaper has been continuously and uninterruptedly published in said county and state for a period of more than one hundred and four consecutive weeks next prior to the first publication of the notice attached hereto, and that said notice was published in the following issues of said newspaper, namely:

CH2M Hill Emily McCann
11363155 - Metro
Published on 07/09/2016

Royce Parkhurst

Subscribed and sworn to before me this Mon. July 11 2016

Anna Calame Raschka
Notary Public

My commission expires 11-5-17

ANNA CALAME RASCHKA NOTARY # 13010217 EXP. 11/05/17 PUBLIC STATE OF OKLAHOMA

Aviso de reunión pública

El Departamento de Transporte de Texas (TxDOT), en asociación con la Administración Federal de Ferrocarriles (FRA), realizará una serie de reuniones públicas para tratar el Estudio de Tren de Pasajeros entre Texas-Oklahoma - CSJ nombre: 8300-00-018.

Martes 9 de agosto de 2016
Oficina de TxDOT del Distrito de Laredo, 1817 Bob Bullock Loop, Laredo, TX 78043
Sala de reuniones grande
Casa abierta: 5:30 p.m.
Presentación: 6:00 p.m.

Miércoles 10 de agosto de 2016
TxDOT del Distrito de Austin - 7901 N. I-35 Austin, TX 78753
Edificio 7, sala de reuniones del distrito
Casa abierta: 5:30 p.m.
Presentación: 6:00 p.m.

Jueves 11 de agosto de 2016
Consejo de Gobiernos del Centro-Norte de Texas (NCTCOG)
616 Six Flags Drive Arlington, TX 76011
Sala del Consejo de Transporte
Casa abierta: 5:30 p.m.
Presentación: 6:00 p.m.

El objetivo de la reunión es presentar la Declaración de Impacto Ambiental Preliminar (DEIS) correspondiente al Estudio de Tren de Pasajeros entre Texas-Oklahoma y recibir los comentarios del público. En todas las reuniones, se exhibirán imágenes informativas a las 5:30 p.m., y la reunión formal comenzará a las 6:00 p.m.

El Estudio de Tren de Pasajeros entre Texas-Oklahoma es un estudio de planificación para determinar si es viable desarrollar un servicio de tren de pasajeros en un corredor de 850 millas que se extendería desde la ciudad de Oklahoma, en el estado homónimo, hasta el sur de Texas. El estudio analizó varias opciones de servicios de pasajeros que abarcan desde el servicio convencional que ofrece Amtrak hasta un verdadero servicio de tren de pasajeros de alta velocidad. El área del estudio se dividió en tres segmentos: el segmento norte, desde la ciudad de Oklahoma hasta Dallas/Fort Worth, el segmento central, desde Dallas/Fort Worth hasta San Antonio, y la sección sur, desde San Antonio hasta el sur de Texas. Mediante el estudio, se determinó el impacto ambiental, se identificaron los tipos de servicios propuestos y se elaboraron planes de desarrollo de servicios para cada uno de los tres segmentos. Como parte de este estudio, se desarrollaron adecuaciones conceptuales para determinar los costos de construcción, operación y mantenimiento, y los cálculos de ingresos correspondientes a cada Segmento.

La Declaración de Impacto Ambiental Preliminar (DEIS) y el resto de la información relacionada con el estudio se encuentran en el expediente y están disponibles para su revisión de lunes a viernes, entre las 8:00 a.m. y las 5:00 p.m. en la Oficina de TxDOT del Distrito de Laredo, 1817 Bob Bullock Loop, Laredo, TX 78043, Departamento Ferroviario de TxDOT - 125 E. 11st Street Austin, TX 78704, y en el Consejo de Gobiernos del Centro-Norte de Texas (NCTCOG) - 616 Six Flags Drive Arlington, TX 76011. Información tambien esta disponible en http://www.txdot.gov/inside-txdot/projects/studies/statewide/texas-oklahoma-rail.html y esta información tambien estafa disponiblehttp//www.txdot.gov/inside-tx para su revisión en las reuniones.

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Gina Calame Raschka
Notary Public

My commission expires 11-5-17

GINA CALAME RASCHKA NOTARY # 13010217 EXP. 11/05/17 PUBLIC STATE OF OKLAHOMA

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SAN ANTONIO EXPRESS NEWS
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STATE OF TEXAS:
COUNTY OF BEXAR

Before me, the undersigned authority, a Notary Public in and for the State of Texas, on this day personally appeared: Lynette Nelson, who after being duly sworn, says that she is the BOOKKEEPER of THE HEARST CORPORATON (SAN ANTONIO EXPRESS-NEWS DIVISION), a daily newspaper published in Bexar County, Texas and that the publication, of which the annexed is a true copy, was published to wit:

Customer ID: 850154
Customer Name: Ch2m Hill
Order ID: 2814139

Publication	Pub Date
EN ROP	09-JUL-16

Lynette Nelson
Bookkeeper

Sworn and subscribed to before me, this 11 day of July A.D. 2016

Notary public in and for the State of Texas

MONIQUE EGAN
Notary Public, State of Texas
Comm. Expires 06-03-2020
Notary ID 3183735

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Notary Public, State of Texas
Comm. Expires 06-03-2020
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said she'd been "very frail and confined to bed" and hadn't been seen in public for a long time.

Michelson was born in Elizabethgrad, Russia, in 1902 and moved to the United States when she was a child. She lived in Worcester, 50 miles west of Boston.

Young said the new oldest American is New Jersey resident Adele Dunlap, who's also 113.

Associated Press

Obama and leaders of the 27 other NATO countries also declared the initial building blocks of a ballistic missile system operationally capable, recognized cyberspace as a domain for alliance operations, committed to boosting their countries' civil preparedness, and renewed a pledge to spend a minimum of 2 percent of their national incomes on defense.

"We have just taken decisions to deliver 21st-century deterrence and defense in the face of 21st-century challenges," Stoltenberg

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Texas Department of Transportation

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The Draft Environmental Impact Statement (DEIS) and other information relative to the study are on file available for inspection Monday through Friday between the hours of 8:00 a.m. and 5:00 p.m. at the TxD Laredo District Office-1817 Bob Bullock Loop, Laredo, TX 78043, TxDOT Rail Division - 118 East Riversi Austin, TX 78704 & the North Central Texas Council of Governments (NCTCOG) - 616 Six Flags Drive Ar TX 76011. Project information is available at http://www.txdot.gov/inside-txdot/projects/studies/statev texas-oklahoma-rail.html and information will be available for inspection at the hearings.

All interested citizens are invited to attend these public hearings. Verbal and written comments from public regarding this study are requested and may be presented for a period of 45 calendar days foll the hearing. Written comments may be submitted either in person or by mail to the TxDOT Rail Divisi Mr. Mark Werner 125 E. 11st Street Austin, TX 78704. Comments must be received on or before Mond August 29, 2016 in order to become part of the official hearing record.

The Public Hearing will be conducted in English. Persons interested in attending the hearing who ha special communication or accommodation needs, or need an interpreter, are encouraged to contac Mr. Mark Werner at (512) 486-5137. Requests should be made at least two days prior to the public h Every reasonable effort will be made to accommodate these needs. If you have general questions o concerns regarding the study, you may contact Mr. Mark Werner at (512) 486-5137.

WORLD BRIEFS

MEXICO

X-rays offer look into reliquaries

High-definition digital X-ray technology is giving researchers in this nation their first glimpse inside centuries-old reliquaries in Mexico City's Metropolitan Cathedral.

The reliquaries — containers for holy relics — are life-size wax body representations of Catholic saints. According to Mexico's National Institute of Anthropology and History, investigators using a portable X-ray machine discovered a cranium, ribs, as well as bones from hands, feet and legs in the sculpted containers.

"It was almost like they held a secret that only the artist who created the wax figure knew," about, said Gabriela Sanchez Reyes of the institute's historic monuments department.

BAHAMAS

Travel advisory to U.S. issued

The Bahamas on Friday issued a rare travel advisory for any of its citizens visiting the United States, recommending that young men in particular take care in cities affected by recent tensions over police shootings.

A statement from the Ministry of Foreign Affairs warns visitors to "exercise appropriate caution" in light of recent episodes involving police officers and black men.

Michelson was born in Elizabethgrad, Russia, in 1902 and moved to the United States when she was a child. She lived in Worcester, 50 miles west of Boston.

Young said the new oldest American is New Jersey resident Adele Dunlap, who's also 113.

Associated Press

of a ballistic missile system operationally capable, recognized cyberspace as a domain for alliance operations, committed to boosting their countries' civil preparedness, and renewed a pledge to spend a minimum of 2 percent of their national incomes on defense.

"We have just taken decisions to deliver 21st-century deterrence and defense in the face of 21st-century challenges," Stoltenberg

After arriving in Warsaw, Obama announced his decision to send an additional 1,000 U.S. troops to Poland as part of the NATO effort to reinforce its presence on the alliance's frontiers near Russia. Following bilateral talks, Duda thanked him, saying Poles "are grateful for the goodwill, for understanding that security is where the world's strongest army is, and that army is the U.S. Army."

Waco Tribune-Herald

Waco, McLennan County, Texas
Affidavit of Publication

Account Number
1063594

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1901L BRAKER LANE BLDG D, SUITE 200
AUSTIN, TX 78758

Date	Category	Description	Ad Size	Total Cost
07/15/2016	Legal Notices	Texas-Oklahoma Passenger Rail Study	1 x 273.00 CL	1,048.86

Publisher of the Waco Tribune-Herald

Before me, a notary public, on this day personally appeared Ana Lozano-Harper and after being duly sworn, states that she is a Multi Media Sales Manager of the Waco Tribune Herald, a newspaper published in Waco, McLennan County, Texas, and that the Notice, a copy of which is hereto attached, was published in said newspaper on the following named dates, to-wit:

07/09/2016

The First insertion being given ... 07/09/2016

Newspaper reference: 0000265096

Sworn to and subscribed before me this day: 7/14/16

Grace Allen
Notary Public

Ana Lozano-Harper
Multi Media Sales Manager

State of Texas
Waco,McLennan County
My Commission expires

NOTARY PUBLIC STATE OF TEXAS
GRACE ALLEN
MY COMMISSION EXPIRES
MARCH 14, 2019

THIS IS NOT A BILL. PLEASE PAY FROM INVOICE. THANK YOU

de huir de las pandillas en el país.

Texas Department of Transportation

Aviso de Reunión Pública

El Departamento de Transporte de Texas (TxDOT), en asociación con la Administración Federal de Ferrocarriles (FRA), realizará una serie de reuniones públicas para tratar el Estudio de Tren de Pasajeros entre Texas-Oklahoma - CSJ nombre: 8300-00-018:

Martes 9 de agosto de 2016
Oficina de TxDOT del Distrito de Laredo,
1817 Bob Bullock Loop, Laredo, TX 78043
Sala de reuniones grande
Casa abierta: 5:30 p.m.
Presentación: 6:00 p.m.

Miércoles 10 de agosto de 2016
TxDOT del Distrito de Austin - 7901 N. I-35 Austin, TX 78753
Edificio 7, sala de reuniones del distrito
Casa abierta: 5:30 p.m.
Presentación: 6:00 p.m.

Jueves 11 de agosto de 2016
Consejo de Gobiernos del Centro-Norte de Texas (NCTCOG)
616 Six Flags Drive Arlington, TX 76011
Sala del Consejo de Transporte
Casa abierta: 5:30 p.m.
Presentación: 6:00 p.m.

El objetivo de la reunión es presentar la Declaración de Impacto Ambiental Preliminar (DEIS) correspondiente al Estudio de Tren de Pasajeros entre Texas-Oklahoma y recibir los comentarios del público. En todas las reuniones, se exhibirán imágenes informativas a las 5:30 p.m., y la reunión formal comenzará a las 6:00 p.m.

El Estudio de Tren de Pasajeros entre Texas-Oklahoma es un estudio de planificación para determinar si es viable desarrollar un servicio de tren de pasajeros en un corredor de 850 millas que se extendería desde la ciudad de Oklahoma, en el estado homónimo, hasta el sur de Texas. El estudio analizó varias opciones de servicios de pasajeros que abarcan desde el servicio convencional que ofrece Amtrak hasta un verdadero servicio de tren de pasajeros de alta velocidad. El área del estudio se dividió en tres segmentos: el segmento norte, desde la ciudad de Oklahoma hasta Dallas/Fort Worth; el segmento central, desde Dallas/Fort Worth hasta San Antonio, y la sección sur, desde San Antonio hasta el sur de Texas. Mediante el estudio, se determinó el impacto ambiental, se identificaron los tipos de servicios propuestos y se elaboraron planes de desarrollo de servicios para cada uno de los tres segmentos. Como parte de este estudio, se desarrollaron adecuaciones conceptuales para determinar los costos de construcción, operación y mantenimiento, y los cálculos de ingresos correspondientes a cada segmento.

La Declaración de Impacto Ambiental Preliminar (DEIS) y el resto de la información relacionada con el estudio se encuentran en el expediente y están disponibles para su revisión de lunes a viernes, entre las 8:00 a.m. y las 5:00 p.m., en la Oficina de TxDOT del Distrito de Laredo, 1817 Bob Bullock Loop, Laredo, TX 78043, Departamento Ferroviario de TxDOT - 125 E. 11st Street Austin, TX 78704, y en el Consejo de Gobiernos del Centro-Norte de Texas (NCTCOG) - 616 Six Flags Drive Arlington, TX 76011. Información también está disponible en http://www.txdot.gov/inside-txdot/projects/studies/statewide/texas-oklahoma-rail.html y esta información también estará disponible para su revisión en las reuniones.

Todos los ciudadanos interesados están invitados a asistir a estas reuniones públicas. Se requiere que el público presente sus comentarios sobre este estudio de forma oral y por escrito; dichos comentarios se pueden presentar durante un plazo de 45 días corridos después de la reunión. Los comentarios por escrito se pueden entregar en persona o enviar por correo al Departamento Ferroviario de TxDOT, a nombre del Sr. Mark

LOST Shih Tzu male, 13 years old, near Kendal Lane & Loop 340. Needs special attention. No collar. Call 254-229-1759 or 254-799-8520

LEGAL NOTICES

Legal Notices

Attention Legal Advertisers! For your convenience, you may e-mail your advertisement to us at the following address:

legals@wacotrib.com
If you have any questions, please call 757-5757.
This excludes liquor permits and some other types of legals ads.
Call for details

NOTICE TO CREDITORS

Notice is hereby given that original Letters of Administration for the Estate of **GLENDA I. MCGEE**, Deceased, were issued on June 22, 2016, in Cause No. 20160137PR1, pending in the County Court of MCLENNAN County, Texas, to: WALTER WAYNE MCGEE.

All persons having claims against this Estate which is currently being administered are required to present them to the undersigned within the time and in the manner prescribed by law.

c/o: **Representative, Estate of**
GLENDA I. MCGEE
183 HCR 3341
HUBBARD, Texas 76648

DATED the 9th day of July, 2016.

NOTICE OF PUBLIC HEARING

The Texas Department of Transportation (TxDOT), in partnership with the Federal Rail Administration (FRA) will conduct a series of public hearings on the Texas-Oklahoma Passenger Rail Study - CSJ number: 8300-00-018:

Tuesday, August 9, 2016
TxDOT Laredo District Office,
1817 Bob Bullock Loop,
Laredo, TX 78043
Large Meeting Room
Open House: 5:30 p.m.
Presentation: 6:00 p.m.

Wednesday, August 10, 2016
TxDOT Austin District- 7901 N. I-35 Austin, TX 78753
Big 7, District Hearing Room
Open House: 5:30 p.m.
Presentation: 6:00 p.m.

Thursday, August 11, 2016
North Central Texas Council of Governments (NCTCOG)
616 Six Flags Drive Arlington, TX 76011
Transportation Council Room
Open House: 5:30 p.m.
Presentation: 6:00 p.m.

The purpose of the hearing is to present the Draft Environmental Impact Statement (DEIS) for the Texas-Oklahoma Passenger Rail maintenance costs and revenue estimates for each segment.

The Draft Environmental Impact Statement (DEIS) and other information relative to the study are on file and available for inspection Monday through Friday between the hours of 8:00 a.m. and 5:00 p.m. at the TxDOT Laredo District Office-1817 Bob Bullock Loop, Laredo, TX 78043, TxDOT Rail Division- 118 East Riverside, Austin, TX 78704 & the North Central Texas Council of Governments (NCTCOG) - 616 Six Flags Drive Arlington, TX 76011. Project information is available at http://www.txdot.gov/inside-txdot/projects/studies/statewide/texas-oklahoma-rail.html and information will be available for inspection at the hearings.

All interested citizens are invited to attend these public hearings. Verbal and written comments from the public regarding this study are requested and may be presented for a period of 45 calendar days following the hearing. Written comments may be submitted either in person or by mail to the TxDOT Rail Division, Mr. Mark Werner 125 E. 11st Street Austin, TX 78704. Comments must be received on or before Monday, August 29, 2016 in order to become part of the official hearing record.

The Public Hearing will be conducted in English. Persons interested in attending the hearing who have special communication or accommodation needs, or need an interpreter, are encouraged to contact Mr. Mark Werner at (512) 486-5137. Requests should be made at least two days prior to the public hearing. Every reasonable effort will be made to accommodate these needs. If you have general questions or concerns regarding the study, you may contact Mr. Mark Werner at (512) 486-5137.

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Sala de reuniones grande
Casa abierta: 5:30 p.m.
Presentación: 6:00 p.m.

Miércoles 10 de agosto de 2016
TxDOT del Distrito de Austin - 7901 N. I-35 Austin, TX 78753
Edificio 7, sala de reuniones del distrito
Casa abierta: 5:30 p.m.
Presentación: 6:00 p.m.

Jueves 11 de agosto de 2016
Consejo de Gobiernos del Centro-Norte de Texas (NCTCOG)
616 Six Flags Drive Arlington, TX 76011
Sala del Consejo de Transporte
Casa abierta: 5:30 p.m.

Dallas/Fort Worth hasta San Antonio, y la sección sur, desde San Antonio hasta el sur de Texas. Mediante el estudio, se determinó el impacto ambiental, se identificaron los tipos de servicios propuestos y se elaboraron planes de desarrollo de servicios para cada uno de los tres segmentos. Como parte de este estudio, se desarrollaron adecuaciones conceptuales para determinar los costos de construcción, operación y mantenimiento, y los cálculos de ingresos correspondientes a cada segmento.

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Todos los ciudadanos interesados están invitados a asistir a estas reuniones públicas. Se requiere que el público presente sus comentarios sobre este estudio de forma oral y por escrito; dichos comentarios se pueden presentar durante un plazo de 45 días corridos después de la reunión. Los comentarios por escrito se pueden entregar en persona o enviar por correo al Departamento Ferroviario de TxDOT, a nombre del Sr. Mark Werner a 125 E. 11st Street Austin, TX 78704. Para formar parte del registro oficial de la reunión, los comentarios se deben recibir como máximo el lunes 29 de agosto de 2016.

La reunión pública será en inglés. Las personas interesadas en asistir a la reunión que tengan necesidades especiales de comunicación o adaptación, o que necesiten un intérprete deben comunicarse con el Sr. Mark Werner al (512) 486-5137. Las solicitudes deben realizarse a menos dos días antes de la reunión pública. Se realizarán todos los esfuerzos razonables para satisfacer estas necesidades. Si tiene preguntas o inquietudes sobre el estudio puede comunicarse con el Sr. Mark Werner al (512) 486-5137.

Appendix C
Public Hearing Materials

TEXAS-OKLAHOMA PASSENGER RAIL STUDY (TOPRS)

Public Hearing

August 9, 2016

Agenda

- Meeting Format
- Overview
- Environmental Overview
- Schedule
- Public Comments

Why Am I Here?

- Learn and ask questions about the study
- Review purpose and need for study
- Provide comments and feedback on the study

How To Submit Comments

- Verbal comments will begin after presentation
- Written comments can be placed in the comment box
- Email comments to: Mark.Werner@txdot.gov
- Mail comments to: TxDOT Rail Division
  125 E. 11th Street
  Austin, TX 78701

Deadline for comments is 5 PM CDT, August 29, 2016

PROJECT OVERVIEW

Texas-Oklahoma Passenger Rail Study (TOPRS)

Overview

- Planning level study to determine the feasibility of developing passenger rail service in the 850 mile corridor from Oklahoma City, OK to South Texas.
- Study began in October 2012 and is funded by a $7 million grant from the Federal Railroad Administration.
- In fall 2013 a series of public scoping meetings were held throughout the corridor seeking input from the public.
- In the winter of 2014 meetings were held to present the alternatives that would be further evaluated in the environmental process.
- A range of service types in the corridor all the way from Amtrak type service with speeds of 79 mph up to true high-speed service with speeds up to 220 mph.
- The alternatives were evaluated to determine environmental effects, service type, construction cost, operation and maintenance cost and to develop a service development plan for the corridor.
- The project is now in the final review process and purpose of the meeting today is to get public input and comments on the project.

Study Purpose and Need

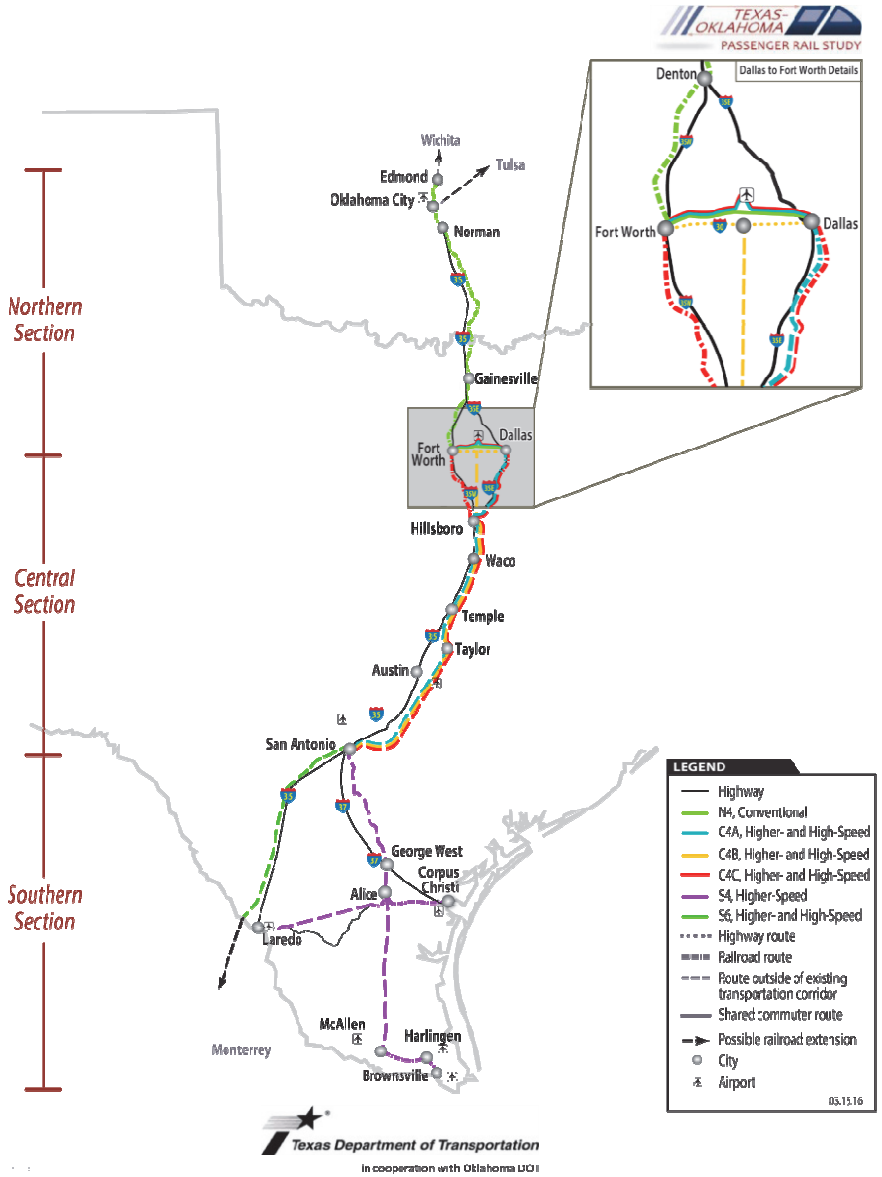
- Purpose – To enhance intercity mobility by providing enhanced passenger rail service as a transportation alternative that is competitive with automobile, bus, and/or air travel.
- Need – to address inadequacies in existing passenger rail service or other modes of transportation to meet current and future mobility needs in the EIS Program corridor, such as:
  - Population and economic growth will increase travel demand increasing congestion and reduce auto, air and transit reliability
  - Limited intercity passenger rail service and capacity and lack of interregional connectivity
  - Declining air quality resulting from increased travel demand and congestion
  - Growth in truck and rail freight has negative effects on the safety of the transportation system

What is a Planning Level Environmental Study?

- Federal law allows agencies to consider very large potential programs or projects in a planning level, to efficiently study and communicate results
- A planning study is the first step of the process, evaluating broad landscape-level effects to identify individual projects that could be studied in more detail in later phases of study
- Because of the size and complexity of the TOPRS study area and potential passenger rail network, a Planning Level Environmental Impact Statement (EIS) is being prepared.
- At the completion of the EIS process, a Record of Decision will identify which project alternatives are selected for further study, including more detailed, project level environmental clearance.

TOPRS Details

- Study Area
  - Northern Section from Oklahoma City, OK to Dallas/Fort Worth
  - Central Section from Dallas/Fort Worth to San Antonio
  - Southern Section from San Antonio to South Texas



Service Types

Passenger rail serves multiple cities along a railway, with limited stops. It can operate at different speeds and frequencies.

Type	Maximum/Avg mph	Stops/Frequency	Train Characteristics
Conventional CONV *(mostly uses existing tracks)* 	Max: **70-90 mph** Average: **45-60 mph**	Stops: **15 to 60 miles** apart Frequency: **3-6 trains/day** each direction *(no more than 12)*	Un/reserved seats; limited business class seating, café food service, and checked baggage; diesel locomotive hauled 
Higher Speed HrSR *(some dedicated tracks)* 	Max: **110-125 mph** Average: **70-85 mph**	Stops: **30 to 90 miles** apart Frequency: **4-8 trains/day** each direction *(as many as 12)*	Reserved seats; business class seating; café food service; no checked baggage; diesel or electric locomotive hauled 
High Speed HSR *(fully dedicated tracks)* 	Max: **165-220 mph** Average: **100-140 mph**	Stops: **50 to 100+ miles** apart Frequency: **12-24 trains/day** each direction	Reserved seats; business class seating; café and at-seat food service; no checked baggage; distributed electric power 

Common Attributes: Single or double deck trains, stations with parking, operation on existing or dedicated tracks

ENVIRONMENTAL OVERVIEW

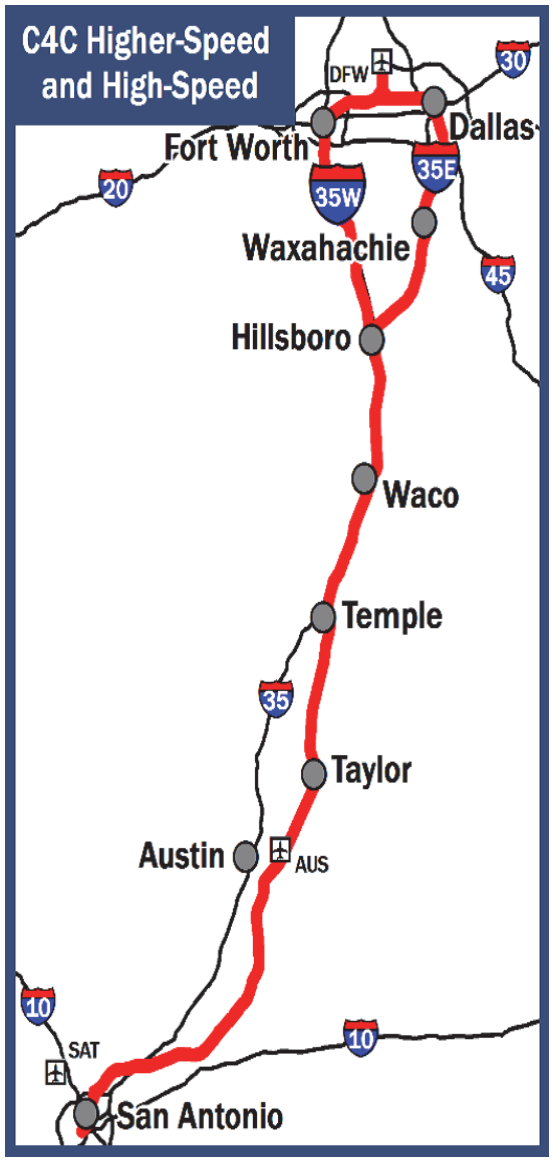
Texas-Oklahoma Passenger Rail Study (TOPRS)

A detailed study called an Draft Environmental Impact Statement (EIS) was done for the proposed project. Alternatives were evaluated against the criteria below to determine the potential effects on the environment.

- Air Quality
- Water Quality
- Noise and Vibration
- Solid Waste Disposal
- Natural Ecological System and Wildlife
- Wetlands
- Threatened and Endangered Species
- Floods Hazards and Floodplain Management
- Coastal Zone Management
- Energy
- Utilities
- Geologic resources
- Aesthetics and visual resources
  - Community impacts
  - Land Use
  - Farmland and Agriculture
  - Environmental Justice, Socioeconomic Environmental
  - Public Health
  - Public Safety and Hazardous Materials
  - Recreational Areas and Hazardous Materials
  - Historic, Archaeological, Architectural & Cultural Resources.
  - Section 4 (f) and Section 6 (f) Evaluation
  - Travel Demand and Transportation
  - Construction Impacts

Northern Section

Central Section



Southern Section

Environmental Impact Statement (EIS)

Project plans and the draft environmental impact statement document are available for viewing:

- Tonight at the Public Hearing
- Project website at: http://www.txdot.gov/inside-txdot/projects/studies/statewide/texas-oklahoma-rail.html
- TxDOT Laredo District Office
- TxDOT Rail Division Office
- North Central Texas Council Of Governments office

Study Schedule

Next Steps

- Compile and consider community input from tonight's public hearing
- Prepare the final Environmental Impact Statement that addresses public comments and prepare the Record of Decision that selects alternatives to be carried forward for further study and refinement

How To Submit Comments

- Verbal comments period
- Written comments can be placed in the comment box
- Email comments to: Mark.Werner@txdot.gov
- Mail comments to: TxDOT Rail Division
  125 E. 11th Street
  Austin, TX

Deadline for comments is 5 PM CDT August 29, 2016

10 Minute Break

Public Comment Period

- Use the microphone
- State your name
- State your interest in the project
- Give your comments on the project
- Please observe 3 minute rule

Closing Remarks

Thank You for Your Participation!

Please remember to submit comments on or before 5 PM CDT, August 29, 2016

- Written comments can be placed in the comment box
- E-Mail comments to: Mark.Werner@txdot.gov
- Mail comments to: TxDOT Rail Division
  125 11th Street
  Austin, TX

Welcome to the Public Hearing!

At this public hearing you can provide input on the Draft Environmental Impact Statement (EIS) for the Texas-Oklahoma Passenger Rail Study (TOPRS).

While you're here, please review and provide input on:

- **Alternative Routes, Station Cities, and Service Levels**
- **Analysis of Potential Environmental Effects**
- **Preferred Alternatives**

Please fill out a comment form before you leave. We want to hear from you!

Written comments on the Draft EIS are due by August 29, 2016.
Comments should be mailed or emailed to:

Mr. Mark Werner
Rail Division
Texas Department of Transportation
125 E. 11th Street,
Austin, TX 78701–2483
Mark.Werner@txdot.gov

Project Website:
http://www.txdot.gov/inside-txdot/projects/studies/statewide/texas-oklahoma-rail.html

Bienvenido a la sesión pública!

En esta sesión pública puede dar su opinión sobre la Declaración de Impacto Ambiental para el Estudio de Carril Pasajero de Texas y Oklahoma (Texas-Oklahoma Passenger Rail Study)

Mientras que esté aquí, por favor revise y de su opinión sobre:

- **Rutas Alternativas, Ciudades de Estación, y los Niveles de Servicio**
- **El Análisis de los Posibles Efectos Ambientales**
- **Alternativas Preferidas**

Por favor, llene un formulario de comentarios antes de salir. ¡Queremos oír de usted!

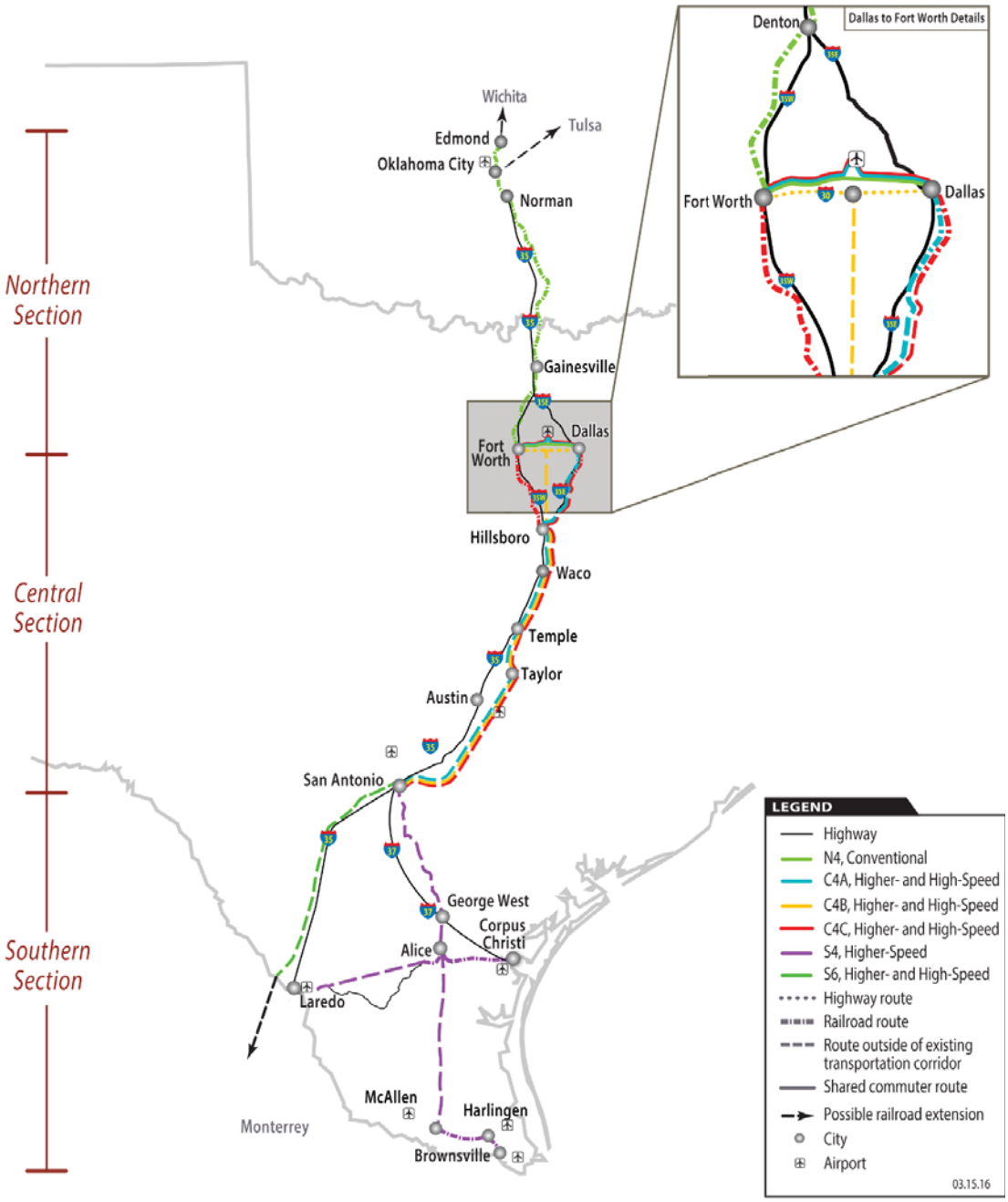
Comentarios sobre la Declaración de Impacto Ambiental se deben el 29 de agosto 2016.
Los comentarios deben ser enviados por correor o por correo electrónico a:

Mr. Mark Werner
Rail Division
Texas Department of Transportation
125 E. 11th Street,
Austin, TX 78701–2483
Mark.Werner@txdot.gov

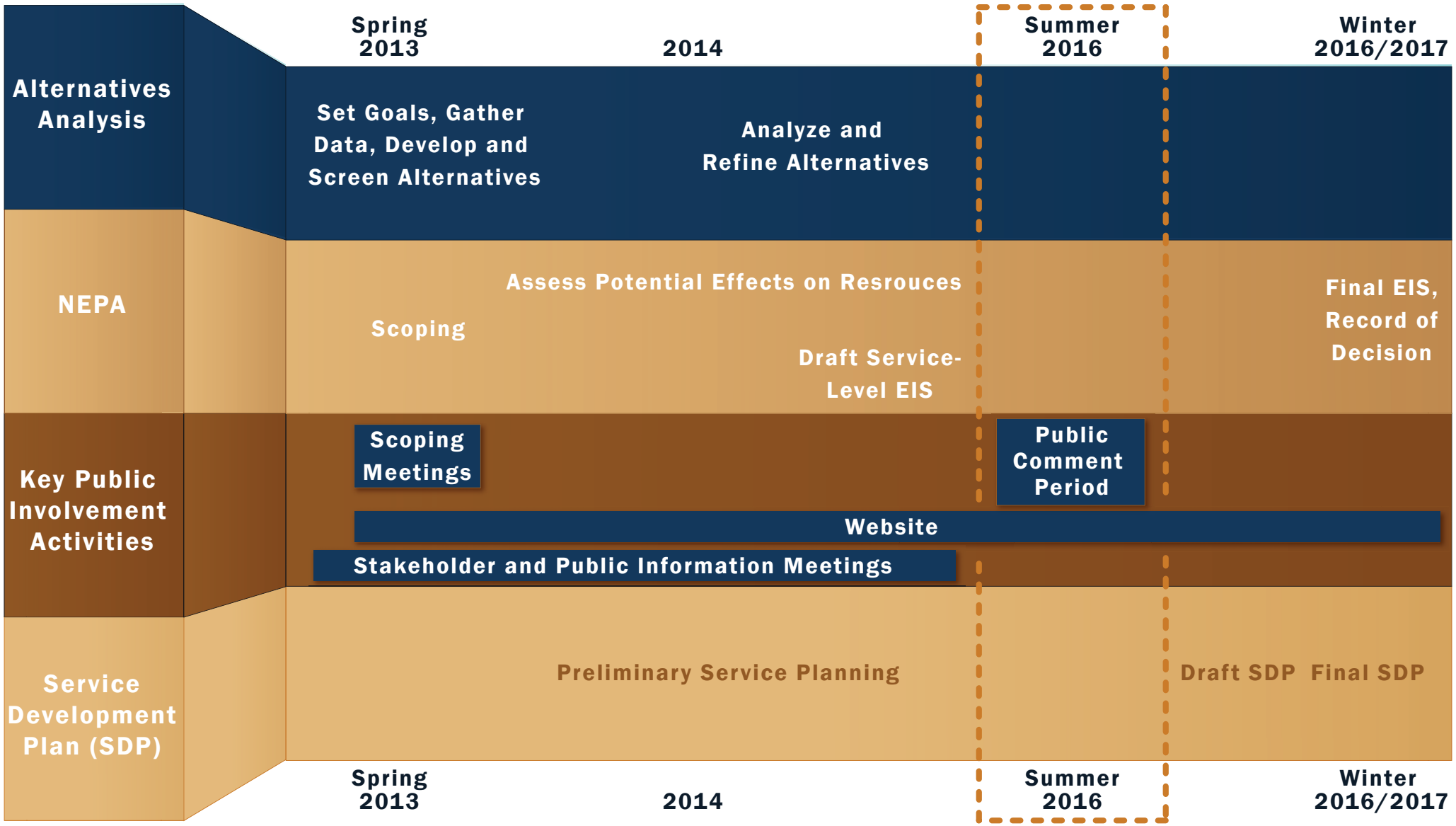
Sitio de Proyecto:
http://www.txdot.gov/inside-txdot/projects/studies/statewide/texas-oklahoma-rail.html

Where is the Study Area?

Alternatives Carried Forward for Further Evaluation in this EIS



TOPRS SCHEDULE



in cooperation with Oklahoma DOT
Texas Department of Transportation

TEXAS-OKLAHOMA PASSENGER RAIL STUDY

TYPICAL CHARACTERISTICS OF PASSENGER RAIL SERVICE LEVELS

Passenger rail serves multiple cities along a railway, with limited stops. It can operate at different speeds and frequencies.

Type	Maximum/Avg mph	Stops/Frequency	Train Characteristics
Conventional CONV *(mostly uses existing tracks)* 	Max: **70-90 mph** Average: **45-60 mph**	Stops: **15 to 60 miles** apart Frequency: **3-6 trains/day** each direction *(no more than 12)*	Un/reserved seats; limited business class seating, café food service, and checked baggage; diesel locomotive hauled 
Higher Speed HrSR *(some dedicated tracks)* 	Max: **110-125 mph** Average: **70-85 mph**	Stops: **30 to 90 miles** apart Frequency: **4-8 trains/day** each direction *(as many as 12)*	Reserved seats; business class seating; café food service; no checked baggage; diesel or electric locomotive hauled 
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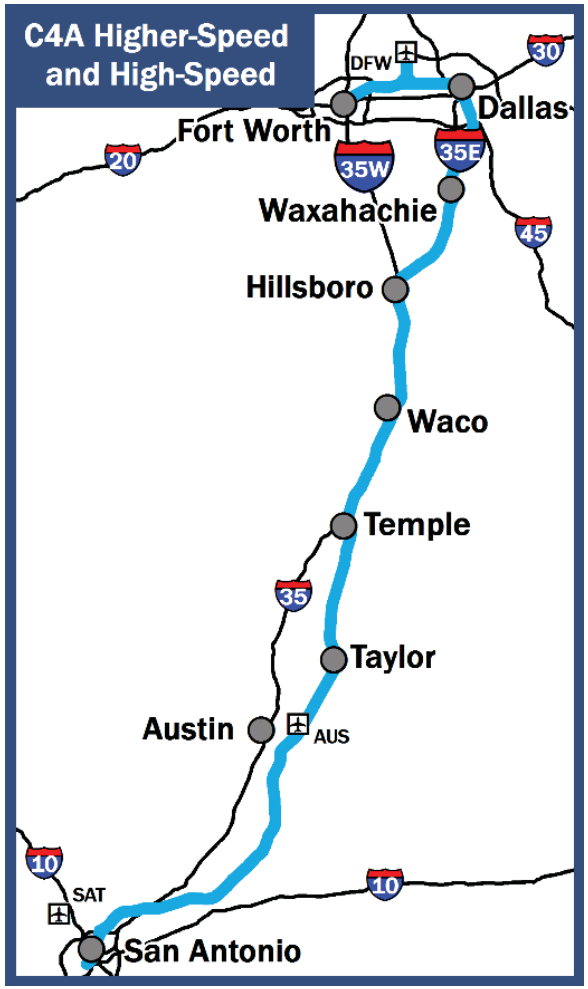
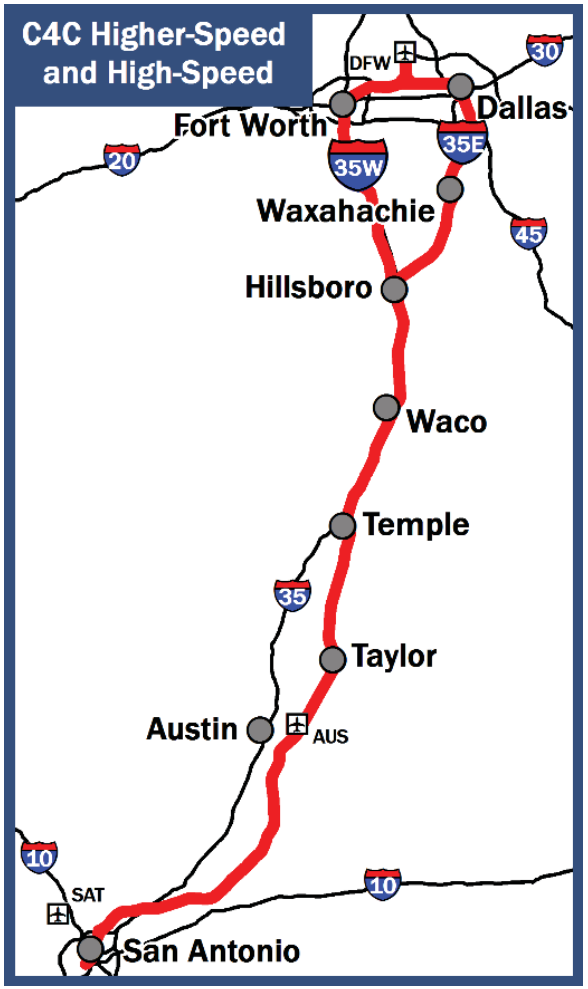
Common Attributes: Single or double deck trains, stations with parking, operation on existing or dedicated tracks


N4A Conventional
Tulsa
35
44
Edmond
40
Oklahoma City
OKC
40
Norman
44
Lawton
35
Oklahoma
Texas
Wichita Falls
Denton
35E
30
Fort Worth
DFW
Dallas
20
35W
45

STUDY ALTERNATIVES
Central Section






S4 Higher-Speed
Temple
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Austin
AUS
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SAT
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San Antonio
George West
35
37
San Diego
Alice
CRP
LRD
Corpus Christi
Laredo
Gulf of Mexico
Texas
Mexico
Monterrey
HRL
McAllen
Harlingen
Brownsville
BRO


S6 Higher-Speed and High-Speed
Temple
35
Austin
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SAT
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San Antonio
George West
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San Diego
Alice
CRP
LRD
Corpus Christi
Laredo
Gulf of Mexico
Texas
Mexico
Monterrey
HRL
McAllen
Harlingen
Brownsville
BRO

SUMMARY OF RESOURCE EFFECTS THAT DISTINGUISH ALTERNATIVES

NORTH SECTION

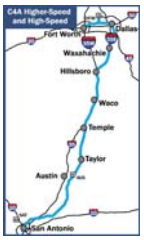
- Substantial Beneficial/Positive Effect
- Moderate Beneficial/Positive Effect
- Negligible Beneficial/Positive Effect
- Negligible Adverse /Negative Effect
- Moderate Adverse/Negative Effect
- Substantial Adverse/Negative Effect

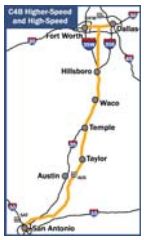
Resource	Category		N4A *Conventional*
Air Quality		*Construction*	
		Operation	
Water Quality	Surface Waters		
	Erosion		
	Runoff & Groundwater		
Noise & Vibration			
Solid Waste Disposal	Landfills		
Natural Ecological Systems & Wildlife		*Construction*	
		Operation	
Wetlands	Waterbodies & Wetlands		
Threatened & Endangered Species	Critical Habitat		
	Sensitive Plant Species		
	Sensitive Wildlife Species	*Construction*	
		Operation	
Flood Hazards & Floodplain Management	Floodplains & Floodways		
Energy		*Construction*	
		Operation	
Utilities	Utility Crossings		
Geologic Resources	Geologic Risks/Hazards		
	Mineral Resources		
Aesthetics & Visual Quality			
Land Use & Prime Farmland	Land Use Compatibility & Prime Farmland		
Environmental Justice & Socioeconomics			
Public Health	Air Quality		
	Groundwater/ Hazardous Materials		
Public Safety & Hazardous Materials	Public Safety		
	Hazardous Materials		
Recreational Areas & Opportunities			
Historic Resources			
Archaeological Resources			
Travel Demand & Transportation	Mode Shift	*Highway*	
	Travel Time Savings	*Highway*	
		Transit	
		Air	
	Travel Time Reliability		
	Vehicle Miles Travelled		

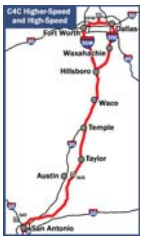
SUMMARY OF RESOURCE EFFECTS THAT DISTINGUISH ALTERNATIVES

CENTRAL SECTION

- Substantial Beneficial/Positive Effect
- Moderate Beneficial/Positive Effect
- Negligible Beneficial/Positive Effect
- Negligible Adverse /Negative Effect
- Moderate Adverse/Negative Effect
- Substantial Adverse/Negative Effect







Resource	Category		C4A HrSR	C4A HSR	C4B HrSR	C4B HSR	C4C HrSR	C4C HSR
Air Quality		*Construction*						
		Operation						
Water Quality	Surface Waters & Erosion							
	Runoff & Groundwater							
Noise & Vibration								
Solid Waste Disposal	Landfills							
Natural Ecological Systems & Wildlife		*Construction*						
		Operation						
Wetlands	Waterbodies & Wetlands							
Threatened & Endangered Species	Critical Habitat							
	Sensitive Plant Species							
	Sensitive Wildlife Species	*Construction*						
		Operation						
Flood Hazards & Floodplain Management	Floodplains & Floodways							
Energy		*Construction*						
		Operation						
Utilities	Utility Crossings							
Geologic Resources	Geologic Risks/Hazards							
	Mineral Resources							
Aesthetics & Visual Quality								
Land Use & Prime Farmland	Land Use Compatibility							
	Prime Farmland							
Environmental Justice & Socioeconomics								
Public Health	Air Quality	*Construction*						
		Operation						
	Groundwater/ Hazardous Materials							
Public Safety & Hazardous Materials	Public Safety							
	Hazardous Materials							
Recreational Areas & Opportunities								
Historic Resources								
Archaeological Resources								
Travel Demand & Transportation	Mode Shift	*Highway*						
		Highway						
	Travel Time Savings	*Transit*						
		Air						
	Travel Time Reliability							
	Vehicle Miles Travelled							

SUMMARY OF RESOURCE EFFECTS THAT DISTINGUISH ALTERNATIVES

SOUTH SECTION

- Substantial Beneficial/Positive Effect
- Moderate Beneficial/Positive Effect
- Negligible Beneficial/Positive Effect
- No Effect
- Negligible Adverse /Negative Effect
- Moderate Adverse/Negative Effect
- Substantial Adverse/Negative Effect

Resource	Category		S4 HrSR	S6 HrSR	S6 HSR
Air Quality		*Construction*			
		Operation			
Water Quality	Surface Waters				
	Erosion				
	Runoff & Groundwater				
Noise & Vibration					
Solid Waste Disposal	Landfills				
Natural Ecological Systems & Wildlife		*Construction*			
		Operation			
Wetlands	Waterbodies & Wetlands				
Threatened & Endangered Species	Critical Habitat				
	Sensitive Plant Species	*Construction*			
		Operation			
	Sensitive Wildlife Species	*Construction*			
		Operation			
Flood Hazards & Floodplain Management	Floodplains & Floodways				
Coastal Zone Management					
Energy		*Construction*			
		Operation			
Utilities	Utility Crossings				
Geologic Resources	Geologic Risks/Hazards				
	Mineral Resources				
Aesthetics & Visual Quality					
Land Use & Prime Farmland	Land Use Compatibility				
	Prime Farmland				
Environmental Justice					
Socioeconomics					
Public Health	Air Quality	*Construction*			
		Operation			
	Groundwater/ Hazardous Materials				
Public Safety & Hazardous Materials	Public Safety				
	Hazardous Materials				
Recreational Areas & Opportunities					
Historic Resources					
Archaeological Resources					
Travel Demand & Transportation	Mode Shift	*Highway*			
	Travel Time Savings	*Highway*			
		Bus			
	Travel Time Reliability				
	Vehicle Miles Travelled				

NEPA RESOURCES ASSESSED IN EIS

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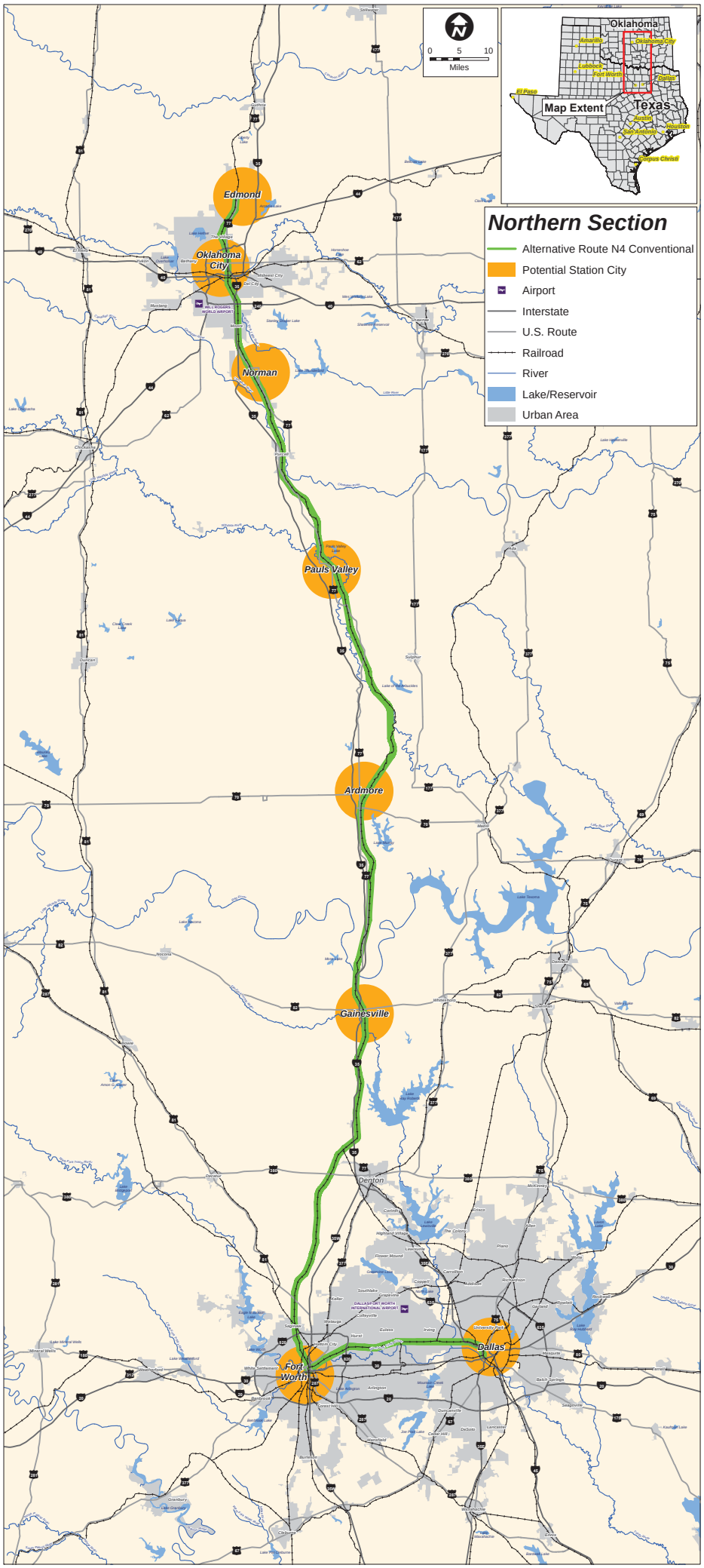
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Potential Station City
Airport
Interstate
U.S. Route
Railroad
River
Lake/Reservoir
Urban Area
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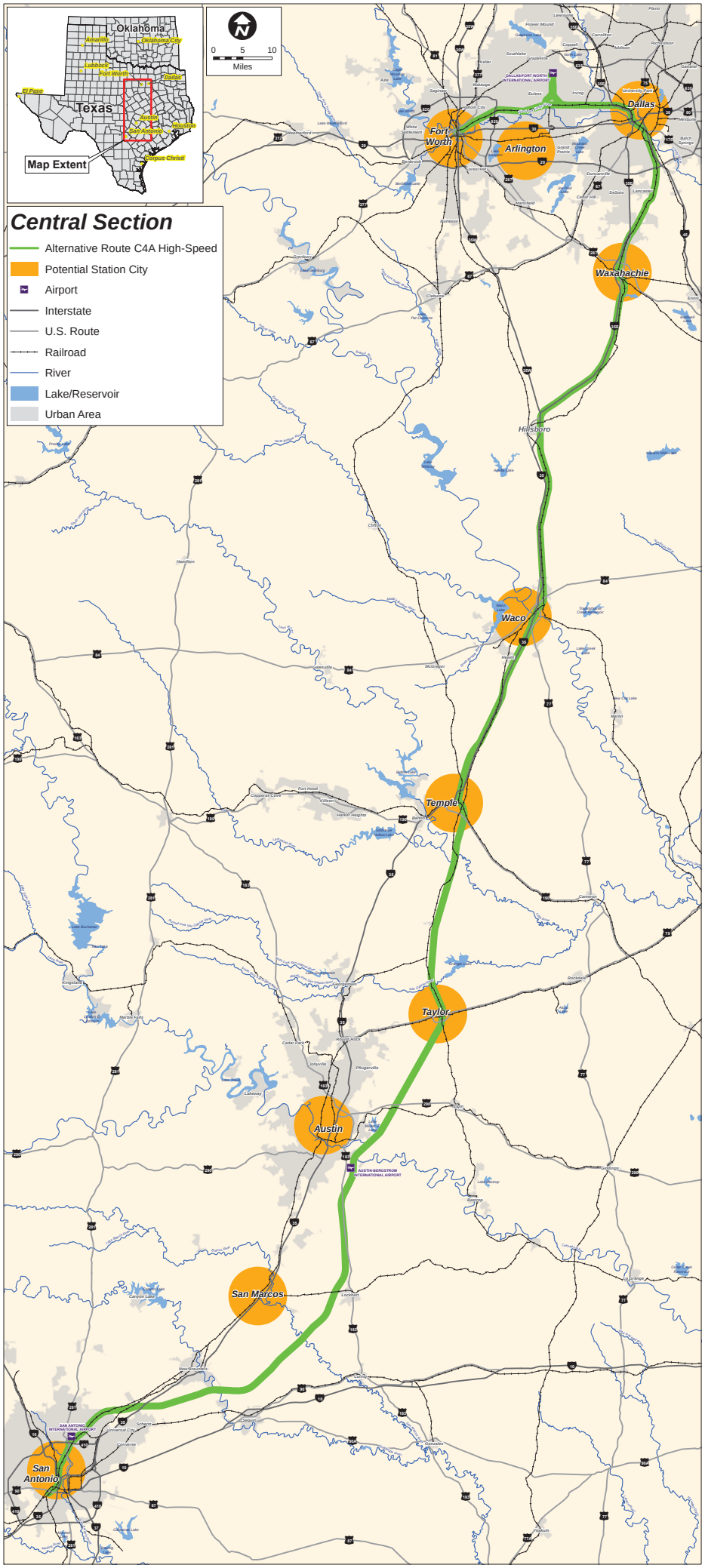
Norman
Pauls Valley
Ardmore
Gainesville
Denton
Dallas
Fort Worth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Potential Station City
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River
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Taylor
Austin
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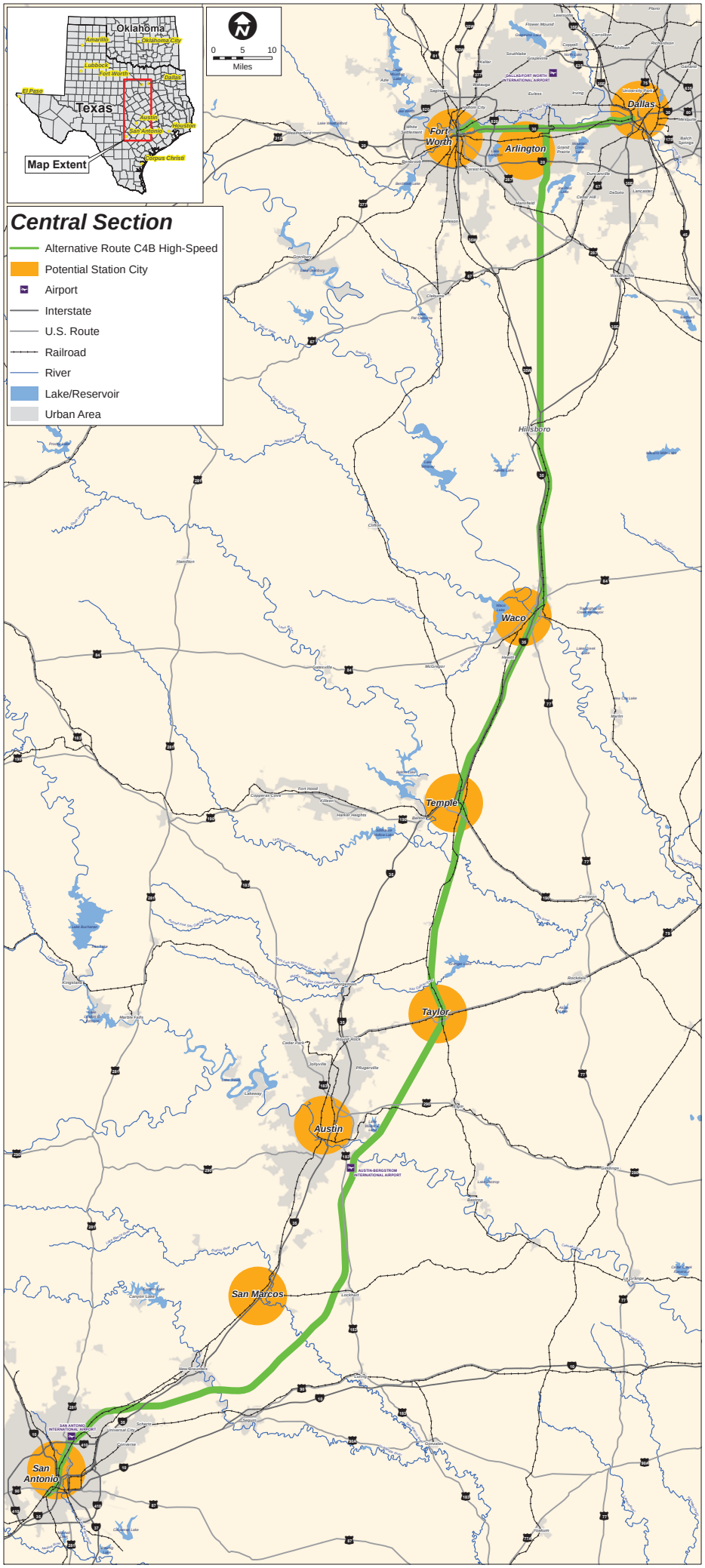
San Antonio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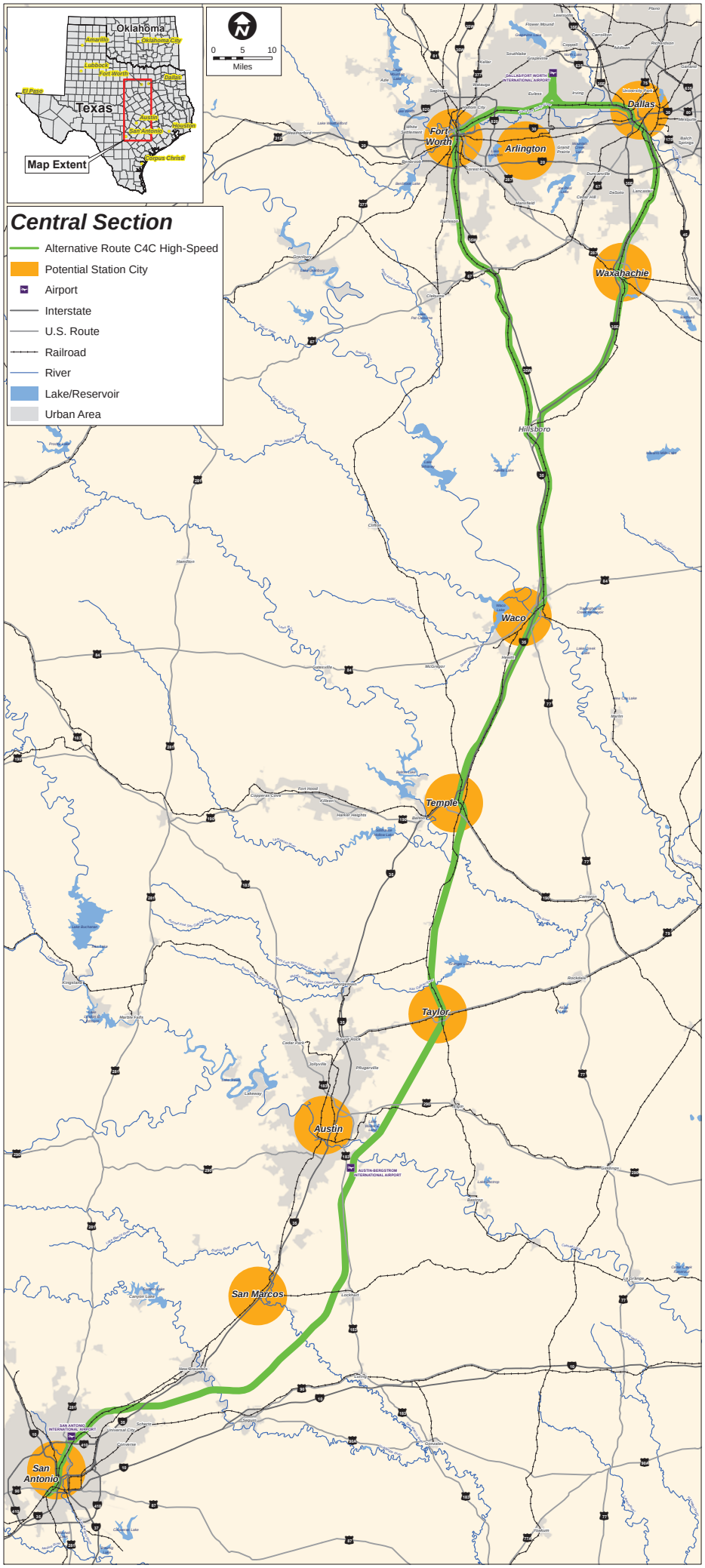
Austin
San Marcos
San Antonio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Fort Worth
Dallas
El Paso
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Houston
San Antonio
Corpus Christi
Map Extent
0 5 10
Miles
Central Section
Alternative Route C4C High-Speed
Potential Station City
Airport
Interstate
U.S. Route
Railroad
River
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Austin
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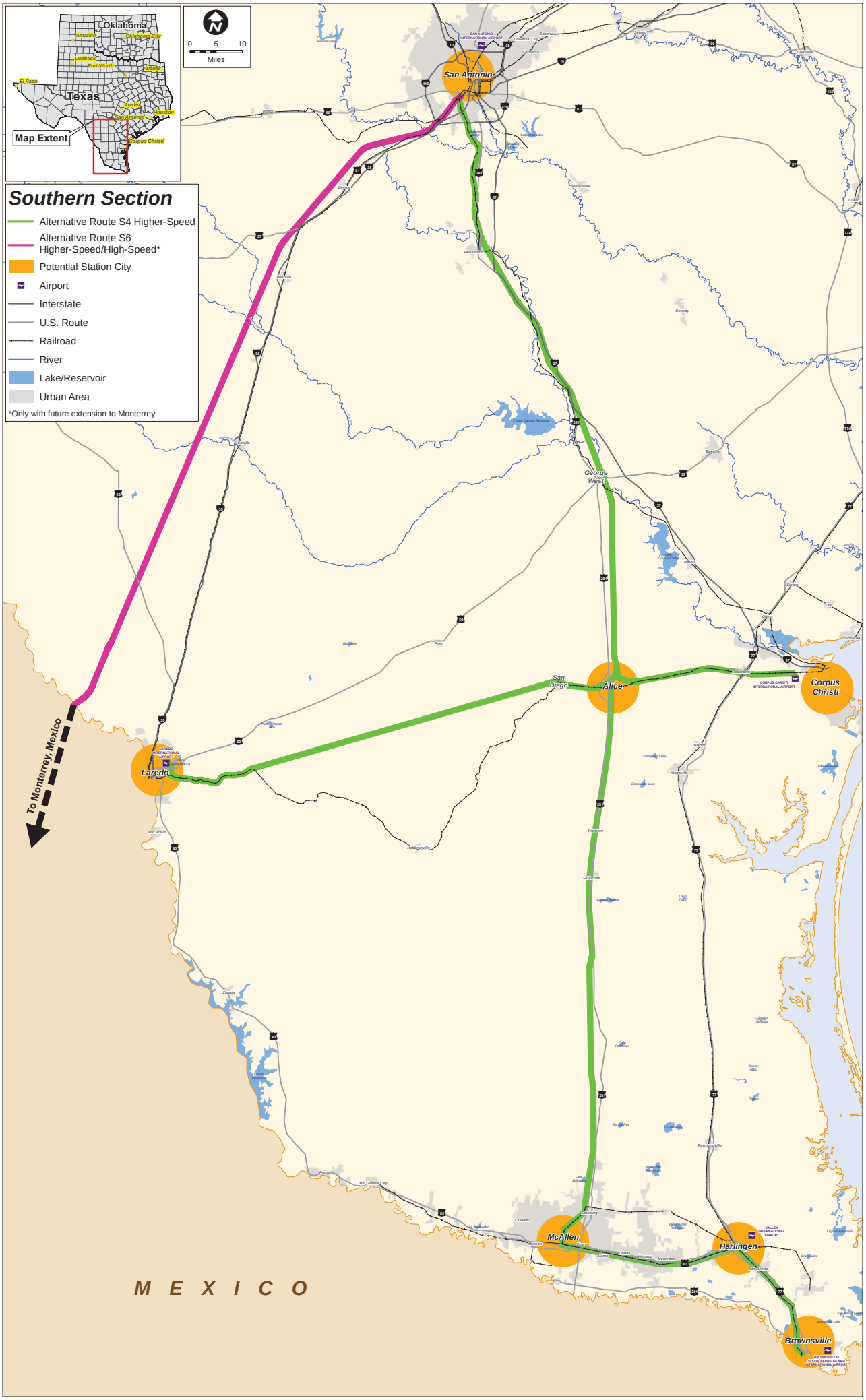
San Antonio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Oklahoma City
Lubbock
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Dallas
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Texas
Austin
San Antonio
Houston
Corpus Christi
Map Extent
0 5 10
Miles
Southern Section
Alternative Route S4 Higher-Speed
Alternative Route S6 Higher-Speed/High-Speed*
Potential Station City
Airport
Interstate
U.S. Route
Railroad
River
Lake/Reservoir
Urban Area
*Only with future extension to Monterrey
San Antonio
George West
San Diego
Alice
Corpus Christi
Laredo
To Monterrey, Mexico
McAllen
Harlingen
Brownsville
M E X I C O

Appendix D
Public Hearing Sign-in Sheets

TOPRS ARLINGTON HEARING- PUBLIC SIGN-IN SHEET

Name/ Nombre	Mailing Address/ Dirección	Email	Would you like to sign up for the email list? (circle yes or no)
JOHN RADOVICH	800 JAGUAR LN 75226	[redacted]	(Yes) No
Agatha Benjamin	1445 Ross Ave, Dallas TX Suite 200 75202	[redacted]	(Yes) No
Brian Schehrer	2307 Denham Dr. Arlington. 76014	[redacted]	(Yes) No
CHARLES GILLETT	2704 LEMMONTREE LN PLANO TX 75074	[redacted]	(Yes) No
JAMES C. PARIS	100 PARKHOUSE DALLAS 75207	[redacted]	(Yes) No
Russell Schaffner	100 E Weatherford, Fort Worth TX	[redacted]	(Yes) No
John Deaver	4106 Green Oak Dr. Waco, TX. 76710	[redacted]	(Yes) No
Amanda Stahlnecker	5817 Comanche Peak Dr., Fort Worth, TX 76179	[redacted]	(Yes) No
			Yes No
			Yes No

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TOPRS ARLINGTON HEARING- PUBLIC SIGN-IN SHEET

Name/ Nombre	Mailing Address/ Dirección	Email	Would you like to sign up for the email list? (circle yes or no)
DAVID S. ARBUCKLE	409 S LAMAR, STE 1022	[redacted]	(Yes) No
Karen Wulff	2113 Vista Ridge Dr. Kerrville, TX		Yes (No)
Connie McCammon	2702 Kingswood Ct Arlington, TX 76001	[redacted]	(Yes) No
Wesley Stanley		[redacted]	(Yes) No
CURTIS LOFTIS		[redacted]	(Yes) No
Travis Liska		[redacted]	(Yes) No
RAVI SWAMY	385 INTERLOCKEN CRESCENT, SUITE 900 BROOMFIELD, CO 80021	[redacted]	(Yes) No
Mark Goode	12750 Merit Dr. Suite 1000 Dallas, TX 75251	[redacted]	(Yes) No
Chad Scanlon	400 S. Houston St. Dallas, TX 75202	[redacted]	(Yes) No
Ken Kowalczyk	2650 Lou Menk Drive FTW	[redacted]	Yes (No)

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TOPRS ARLINGTON HEARING- PUBLIC SIGN-IN SHEET

Name/ Nombre	Mailing Address/ Dirección	Email	Would you like to sign up for the email list? (circle yes or no)
Allan Boothe	Parsons Corp Richardson TX	[redacted]	(Yes) No
CHRIS TOLAR	1621 HEARTHSTONE DR PLANO 75023	[redacted]	(Yes) No
Pam Thomas	Statewide Rigny Way 99 Regency Pkwy Mansfield 76063	[redacted]	~~Yes~~ No
Wes McClure	700 N. Pearl, Suite 2100 Dallas TX 75201	[redacted]	(Yes) No
Jessica Attas	101 S. 3rd St. Waco TX 76707	[redacted]	(Yes) No
Karin Dade	2000 Berry Drive, Suite 702 Houston	[redacted]	(Yes) No
Jessica Mason	6016 Six Flags Drive, Arlington TX 76011	[redacted]	Yes (No)
Eric [illegible]	1505 Sanford Arlington, TX	[redacted]	Yes (No)
Alan Garces	Texas Central Partners	[redacted]	(Yes) No
CRAIG MORGAN		[redacted]	(Yes) No

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TOPRS ARLINGTON HEARING- PUBLIC SIGN-IN SHEET

Name/ Nombre	Mailing Address/ Dirección	Email	Would you like to sign up for the email list? (circle yes or no)
Ed Duddy	15398 Polo Pinto Dr Frisco, TX 75035	[redacted]	(Yes) No
Bryan Beck	1000 Throckmorton St. Ft. Worth 76102	[redacted]	(Yes) No
CHARLES TUCKER		[redacted]	(Yes) No
STANFORD LYNCH	44450 International Plaza Fort Worth, Tx 76109	[redacted]	(Yes) No
Henry Wulff	2113 Vista Ridge Dr. Kennville TX 78028	[redacted]	(Yes) No
Tim Vestal	4908 Riverbend Dr. Fort Worth, TX 76109	[redacted]	(Yes) No
Beth Bissell	2403 Madera St Dallas, Tx 75206	[redacted]	(Yes) No
Andrew Verity	8901 John Carpenter Fwy Dallas Tx 75247	[redacted]	(Yes) No
Greg James	1999 Bryan Street #1200 Dallas Tx 75201	[redacted]	Yes (No)
Tim Cooper	400 S. Houston Rm 100 Dallas 75202	[redacted]	(Yes) No

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TOPRS ARLINGTON HEARING- PUBLIC SIGN-IN SHEET

Name/ Nombre	Mailing Address/ Dirección	Email	Would you like to sign up for the email list? (circle yes or no)
Alicia Winkelblech	101 W. Abram St Arlington TX 76[redacted]010	[redacted]	(Yes) No
			Yes No
			Yes No
			Yes No
			Yes No
			Yes No
			Yes No
			Yes No
			Yes No
			Yes No

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TOPRS ARLINGTON HEARING- PUBLIC SIGN-IN SHEET

Name/ Nombre	Mailing Address/ Dirección	Email	Would you like to sign up for the email list? (circle yes or no)
LeAnne Stevens	4809 McKinney Ave, Dallas	[redacted]	Yes (No)
Cade Stevens		[redacted]	(Yes) No
Yvette Matsumura		[redacted]	(Yes) No
Colton Zuvela		[redacted]	Yes (No)
			Yes No
			Yes No
			Yes No
			Yes No
			Yes No
			Yes No

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TOPRS ARLINGTON HEARING- PUBLIC SIGN-IN SHEET

Name/ Nombre	Mailing Address/ Dirección	Email	Would you like to sign up for the email list? (circle yes or no)
JOHN BRUNK	4516 LOVERS LANE #326 DALLAS, TX 75225	[redacted]	(Yes) No
			Yes No
			Yes No
			Yes No
			Yes No
			Yes No
			Yes No
			Yes No
			Yes No
			Yes No

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TOPRS ARLINGTON HEARING- PUBLIC SIGN-IN SHEET

Name/ Nombre	Mailing Address/ Dirección	Email	Would you like to sign up for the email list? (circle yes or no)
Katelyn Kowalczyk	1831 Sonnet Drive Grapevine, TX 76051	[redacted]	(Yes) No
Johnny Johnson	1705 NW Hwy Suite 150 Grapevine TX 76051	[redacted]	(Yes) No
Tom Ryden	3030 LBJ Fwy Ste 900 Dallas TX 75234	[redacted]	(Yes) No
			Yes No
			Yes No
			Yes No
			Yes No
			Yes No
			Yes No
			Yes No

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TEXAS OKLAHOMA PASSENGER RAIL STUDY

TOPRS ARLINGTON HEARING- ELECTED OFFICIALS SIGN-IN SHEET

Name/ Nombre	Elected Office/ Oficina Elegida	Would you like to speak tonight?	Mailing Address/ Dirección	Email
	Alan Whitley	No		
for Rep Chris Turner	Tammy Dubberke	No		[redacted]
for TC Commiss. Gary Fickes	Rebecca Barksdale	No	Pct 3	[redacted]
RTC	Kathryn Wilemon	No		

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TOPRS ARLINGTON ~~HEARING- PUBLIC~~ STAFF SIGN-IN SHEET

Name/ Nombre	Mailing Address/ Dirección	Email	Would you like to sign up for the email list? (circle yes or no)
Annie Lawson	200 E. Riverside Dr. Austin, TX 78704		Yes / No
Susan Howard	" "		Yes / No
Mark Warner	" "		Yes / No
Melissa Neeley	" "		Yes / No
Brian Hawskrecht		[redacted]	Yes / No
Sandy Wesch	616 Six Flags Arlington, TX		Yes / No
Dan Lamers	"		Yes / No
Natalie Galindo	2500 SW Loop FW, TX 76133	[redacted]	Yes / No
Kevin Wright	1200 New Jersey Ave SE Washington, DC 20590		Yes / No
Curtis Hanan	2501 SW Loop 820 TxDOT FTW 76133	CURTIS.HANAN@TXDOT.GOV	Yes / No

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TOPRS ARLINGTON HEARING- MEDIA SIGN-IN SHEET

Name/ Nombre	Representing/ Representando	Mailing Address/ Dirección	Email
Sal Rios	KTUT CBS 11		
Stephanie Kuo	KERA		[redacted]
Hayley Enoch	Trains Magazine		[redacted]

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TOPRS AUSTIN HEARING- MEDIA SIGN-IN SHEET

Name/ Nombre	Representing/ Representando	Mailing Address/ Dirección	Email
James Taplin	Time Warner		
Zully Salgado	Univision		

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TEXAS OKLAHOMA
PASSENGER RAIL STUDY

TOPRS AUSTIN HEARING- PUBLIC SIGN-IN SHEET

Name/ Nombre	Mailing Address/ Dirección	Email	Would you like to sign up for the email list? (circle yes or no)
Michael Martin	102 Savin Rise Ct. Pflugerville TX 78660	[redacted]	(Yes) No
Clare Barry	1505 Brentwood Austin	[redacted]	(Yes) No
Adolfo Pesquera	4047 Naco Perrin San Antonio	[redacted]	(Yes) No
Martin Hubert	919 Congress Ave. Ste. 250 Austin TX 78701	[redacted]	(Yes) No
Javier Argüello	2910 E. 5th St. Austin TX 78702	[redacted]	(Yes) No
Margarita Hemans	114 W. Commerce San Antonio	[redacted]	(Yes) No
Joe Maley	594 Wolf Dr. Valley Mills 76689		Yes (No)
Jessica Attas	19 S. 3rd Waco TX 76701	[redacted]	(Yes) No
			Yes No
			Yes No

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TEXAS OKLAHOMA PASSENGER RAIL STUDY

TOPRS AUSTIN HEARING- PUBLIC SIGN-IN SHEET

Name/ Nombre	Mailing Address/ Dirección	Email	Would you like to sign up for the email list? (circle yes or no)
Ricky Lindsey	3174 FM 2484 Schulenburg TX	[redacted]	Yes No
JASON BARTON	1705 W NW HWY GRAPEVINE, TX	[redacted]	Yes No
MIKE MEADOWS	347 Howe Hill Rd. Waco, Tx. 76706	[redacted]	Yes No
Cinde Weatherby	1821 Westlake Dr. #D1 AUSTIN, TX 78746	[redacted]	Yes No
paige Ellis	1001 Mopac circle Austin, TX 78746	[redacted]	Yes No
Michael Robb	220 [illegible] Dr. #27 [illegible]	mike.robb@txdot.texas.gov	Yes No
Greg Sells	3300 Parker Ln. Apt. 258 Austin, TX 78741	[redacted]	Yes No
Bianca Thorpe	114 W Commerce SA, TX 78205	[redacted]	Yes No
Patrick Anderson		[redacted]	Yes No
Ben Arnold		[redacted]	Yes No

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TEXAS OKLAHOMA PASSENGER RAIL STUDY

TOPRS AUSTIN HEARING- PUBLIC SIGN-IN SHEET

Name/ Nombre	Mailing Address/ Dirección	Email	Would you like to sign up for the email list? (circle yes or no)
Pete Weston	137 Airport Rd Gatesville TX 76528	[redacted]	Yes (No)
Tina Walker	PO BOX 941 Dripping Springs TX 78620	[redacted]	(Yes) No
Julie Shah	5501 Ravine Ridge Cove Austin Tx 78746	[redacted]	(Yes) No
Laramie Adams	1005 Congress Ave Suite 1050 Austin TX 78701	[redacted]	(Yes) No
CLINTON WAGGONER	4508 SMALL DR AUSTIN, TX 78731	[redacted]	(Yes) No
Mavis Waggoner	ditto "	[redacted]	Yes No
Mark Bonskey	816 congress Ave, #1630 AUSTIN, TX 78701	[redacted]	(Yes) No
Karen Ward	5307 Industrial Oaks Blvd #160 Austin, TX 78735	[redacted]	(Yes) No
Steven Polunsky	505 E. Huntland Dr. Austin TX 78752	[redacted]	(Yes) No
Eleanor Dearman	2200 San Gabriel St. Apt. 301 Austin, Tx 78705	[redacted]	(Yes) No

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TEXAS OKLAHOMA PASSENGER RAIL STUDY

TOPRS AUSTIN HEARING- PUBLIC SIGN-IN SHEET

Name/ Nombre	Mailing Address/ Dirección	Email	Would you like to sign up for the email list? (circle yes or no)
Tom Wood	P.O. Box 836 Little River, TX 76554	[redacted]	Yes (No)
Chris Evilia	Waco MPO P.O. Box 2570 Waco TX 76702	cevilia@wacotx.gov	Yes No
ALBERT BETITA	P.O. Box 124, AUSTIN, TX 78767	[redacted]	(Yes) No
NISHANT KUKADIA	2705 BEE CAVE RD. SUITE 300, AUSTIN, TX 78746	[redacted]	(Yes) No
CURTIS YOUNTS	R~~O~~ 3648 Elmer King Road Belton	[redacted]	Yes (No)
Dan Pugh	PO Box 70 Rockport 78381	[redacted]	Yes No
BRUCE ASHTON	10510 MT MARCY SAN ANTONIO 78213	[redacted]	(Yes) No
ROB MAXWELL	6330 WEST LOOP SOUTH, STE 150 BELLAIRE TEXAS 77401	[redacted]	(Yes) No
Becky Shelton	1511 Colorado Ave Austin TX 78711	rebecca.shelton@thc.state.gov	(Yes) No
HALEY NORMAN	3009 BIRCH DR 78613	[redacted]	Yes (No)

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TEXAS OKLAHOMA PASSENGER RAIL STUDY

TOPRS AUSTIN HEARING- ~~PUBLIC~~ Staff SIGN-IN SHEET

Name/ Nombre	Mailing Address/ Dirección	Email	Would you like to sign up for the email list? (circle yes or no)
Steven MINES	Interpret Lang Servs.	[redacted]	Yes (No)
CHRIS Bishop	TXDOT AUS	christopher.bishop@TXDOT.gov	Yes (No)
JASON BRECHT	TxDOT AUS 14	Jason.brecht@Txdot.gov	Yes (No)
Chad Coburn	TxDOT RHD	Chad.coburn@txdot.gov	Yes (No)
Ryan Grangle	TxDOT Austin	ryan.grangle@txdot.gov	(Yes) No
			Yes No
			Yes No
			Yes No
			Yes No
			Yes No

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TEXAS OKLAHOMA PASSENGER RAIL STUDY

TOPRS AUSTIN HEARING- ~~PUBLIC~~ Staff SIGN-IN SHEET

Name/ Nombre	Mailing Address/ Dirección	Email	Would you like to sign up for the email list? (circle yes or no)
Shannon Benz	8605 Emerald Hill Dr	[redacted]	Yes (No)
Amy Redmond	200 E. Riverside Dr Austin TX 78704	amy.redmond@txdot.gov	(Yes) No
Annie Lagou	200 E. Riverside Dr.	annie.lagou@txdot.gov	(Yes) No
Dan Harmon	118 E. Riverside Dr	dan.harmon@txdot.gov	(Yes) No
Mark Werner	118 E Riverside Dr	mark.werner@txdot.gov	(Yes) No
Brian Haustenecht	555 N Carancahua Ste 310 Corpus Christi 78418	[redacted]	(Yes) No
Jefferson Grimes	125 E. 11th, Austin, 78701	jefferson.grimes@txdot.gov	Yes (No)
Melissa Neeley	118 E Riverside Austin 78704	melissa.neeley@txdot.gov	Yes (No)
Becky Ozuna	125 E. 11th St Austin, TX 78701	becky.ozuna@txdot.gov	(Yes) No
Kevin Wright	1200 New Jersey Ave SE Washington, DC 20590	kevin.wright@dot.gov	Yes No

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TEXAS OKLAHOMA PASSENGER RAIL STUDY

Staff
TOPRS LAREDO HEARING- ~~PUBLIC~~ SIGN-IN SHEET

Name/ Nombre	Mailing Address/ Dirección	Email	Would you like to sign up for the email list? (circle yes or no)
Mike Graham	1817 Bob Bullock Lp. Laredo, TX 78043	Mike.Graham@TxDOT.gov.	(Yes) No
Melisa Montemayor	"	melisa.montemayor@txdot.gov	(Yes) No
Mark Werner	118 E. Riverside Dr Austin, TX 78739	mark.werner@txdot.gov	(Yes) No
Dan Harmon	"	dan.harmon@txdot.gov	(Yes) No
Melissa Neeley	118 E Riveside Dr Austin Tx 78704	melissa.neeley@txdot.gov	Yes (No)
Amy Redmond	200 E Riverside Dr Austin TX 78704	Amy.redmond@txdot.gov	(Yes) No
Brain Hausknecht	555 N Carancahua Ste 310 Corpus Christi, Tx 78401	[redacted]	(Yes) No
[illegible]			Yes No
Marissa Montoya	1817 Bob Bullock Loop Laredo, TX 78045	marissa.montoya@txdot.gov	(Yes) No
Pete Alvarez	"	pedro.alvarez@txdot.gov	(Yes) No

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TOPRS LAREDO HEARING- PUBLIC SIGN-IN SHEET

Name/ Nombre	Mailing Address/ Dirección	Email	Would you like to sign up for the email list? (circle yes or no)
Hector Rodriguez	505 ST James Dr	[redacted]	(Yes) No
Jeff Jones	1515 Meadow	[redacted]	Yes No
Alejandro Vaez	2410 Burnside	[redacted]	(Yes) No
Danielle Gonzalez	803 Laurel Dr	[redacted]	(Yes) No
Francisco Marquez	5610 Munn Rd.	[redacted]	(Yes) No
Glafiro Montemayor	5610 Munn Rd.	[redacted]	(Yes) No
Juan Garcia	101 Solidarity		Yes (No)
ARTURO BARRERA	615 GALE LAREDO, TX 78046	[redacted]	(Yes) No
Carlos G Rodriguez		Carlos.g.rodriguez@TxDOT.gov	(Yes) No
Genaro David Villarreal		[redacted]	Yes (No)

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TOPRS LAREDO HEARING- PUBLIC SIGN-IN SHEET

Name/ Nombre	Mailing Address/ Dirección	Email	Would you like to sign up for the email list? (circle yes or no)
Jerod Borrego	605 Hortensia Ln	[redacted]	Yes **No**
J. AMIEVA	5919 McPHERSON LA	[redacted]	Yes No
Miriam Barrera	130 Carter Dr	[redacted]	Yes **No**
DARREN RATAJSKI	2330 N LOOP 1604 WEST SAN ANTONIO, TX 78256	[redacted]	**Yes** No
Hugo Barrera	3838 Broadway 1816 San Antonio	[redacted]	Yes No
~~MARC DIXON~~	~~FRA~~		Yes No
~~Kevin Wright~~	~~FRA~~		Yes No
Jeremy Reyes	1905 Denmark Ln	[redacted]	Yes **No**
ENRIQUE RESENDEZ	P.O. BOX 450587 LAREDO, TX	[redacted]	Yes No
MARIO G. CASILLAS, JR	909 QUEENS CT UNIT A	[redacted]	**Yes** No

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TOPRS LAREDO HEARING- PUBLIC SIGN-IN SHEET

Name/ Nombre	Mailing Address/ Dirección	Email	Would you like to sign up for the email list? (circle yes or no)
Jose B. Gonzalez	803 Laurel Dr. Lndo, Tx	—	Yes (No)
Gabriela Villegas	2306 Senorita Ln, Tx		Yes No
Patricia Trevino	4715 Los Laureles TX		(Yes) No
Briana Cabrales Z.	Del Mar, TX	—	Yes (No)
Dragan Stone	Corpus Christi TX		Yes No
Yanira I. Becerra	3119 Market #1 Laredo Tx		Yes (No)
Natalie Holguin	13134 Atlanta dr laredo TX		Yes (No)
Diego Gonzalez	—	—	Yes (No)
Juan Salinas	201 W. Hillside #7. Laredo TX 78041	[redacted]	(Yes) No
Mónica Zozaya	Monterrey, N.L.	[redacted]	(Yes) No

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TOPRS LAREDO HEARING- PUBLIC SIGN-IN SHEET

Name/ Nombre	Mailing Address/ Dirección	Email	Would you like to sign up for the email list? (circle yes or no)
Ana Villarreal		[redacted]	(Yes) No
Fernando C. Morales, Jr		[redacted]	(Yes) No
Andrew L. Carranco	319 Windsor Rd Laredo Tx. 78041	[redacted]	(Yes) No
Danny Magee		danny.magee@txdot.gov	Yes (No)
Delma Vargas	1817 S. Meadow Ave.	[redacted]	Yes (No)
Miguel Conchas	2310 San Bernardo Ave	[redacted]	(Yes) No
Olivia Varela	616 Leal St.	[redacted]	(Yes) No
Miguel Pescaco	2704 Anejo	[redacted]	Yes No
[illegible]			Yes No
			Yes No

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TOPRS LAREDO HEARING- PUBLIC SIGN-IN SHEET

Name/ Nombre	Mailing Address/ Dirección	Email	Would you like to sign up for the email list? (circle yes or no)
Jesus A Segovia	315 Montana St	[redacted]	Yes No
Sylvia Segovia	Congressman Cuellar	[redacted]	Yes No
[illegible]	280 Magnum		Yes No
Leroy Medford	Webb County		Yes No
Mario A. Peña	8816 Justice Dr	[redacted]	Yes No
Victor Bravo	West End Washington ST # 140	[redacted]	Yes No
Alan D. [illegible]	3615 N. K Mike Apt #9	[redacted]	Yes No
Pablo Adenaz	3008 Swift Dr.	[redacted]	Yes No
Luis H. Lopez	8615 Puerto Viejo	[redacted]	Yes No
Lorena Reyes	3012 Logan Ave	[redacted]	Yes No

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TOPRS LAREDO HEARING- PUBLIC SIGN-IN SHEET

Name/ Nombre	Mailing Address/ Dirección	Email	Would you like to sign up for the email list? (circle yes or no)
Jorge A. Jimenez	4104 Exodus		Yes (No)
Sherly Bueno	W End Washington St		Yes (No)
Tracey Ramos	9605 White Wing Loop		Yes (No)
Rene Gonzalez	307 Carlson	[redacted]	Yes No
Jofinma P. Shirley	104 Del Court ste 400	[redacted]	(Yes) No
Gerry Schwebel	1211 San Bernardo	[redacted]	Yes No
Lizbeth Camarillo	7092 Zebra Dr	[redacted]	(Yes) No
Esteban Cantu	420 Grosbeak	[redacted]	Yes (No)
Clarissa Cantu	420 Grosbeak	[redacted]	Yes (No)
			Yes No

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TOPRS LAREDO HEARING- MEDIA SIGN-IN SHEET

Name/ Nombre	Representing/ Representando	Mailing Address/ Dirección	Email
MAURICIO BELLOC	EL MANANA NEWSPAPER	EL MANANA.COM.MX.	[redacted]
Miguel Timoshenko	Stereo 91-FM	[redacted]	
Jasmin Treviño	Univision/FOX	[redacted]	
Taryn Walters	Laredo Morning Times	[redacted]	
Angelo Gorman	Televisa/Stereo91	[redacted]	
Danny Zarzoza	Laredo Morning Times	[redacted]	

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TOPRS LAREDO HEARING- PUBLIC SIGN-IN SHEET

Name/ Nombre	Mailing Address/ Dirección	Email	Would you like to sign up for the email list? (circle yes or no)
Rafael García	1620 Washington St Apt D.	[redacted]	(Yes) No
Manuel Acuña Tepedi	facultad Derecho UANL	[redacted]	(Yes) No
Dr. Fernando Hernandez C. Uni. U. Aut. Tam.		[redacted]	(Yes) No
			Yes No
			Yes No
			Yes No
			Yes No
			Yes No
			Yes No
			Yes No

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TOPRS LAREDO HEARING- PUBLIC SIGN-IN SHEET

Name/ Nombre	Mailing Address/ Dirección	Email	Would you like to sign up for the email list? (circle yes or no)
Vic Boyer	13526 George Rd. #107 San Antonio, TX 78207	[redacted]	Yes ✓ No
Carlos Garza	1211 San Dario Ave #1062 Laredo tx 78040	[redacted]	Yes ✓ No
Ivan Rodriguez	8305 Country Club Dr. Ldo. TX. 78045	[redacted]	Yes No
Elizabet Rodriguez	"	[redacted]	Yes No
			Yes No
			Yes No
			Yes No
			Yes No
			Yes No
			Yes No

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TOPRS LAREDO HEARING- PUBLIC SIGN-IN SHEET

Name/ Nombre	Mailing Address/ Dirección	Email	Would you like to sign up for the email list? (circle yes or no)
Robert Ends	1110 Houston St. Laredo, TX	[redacted]	(Yes) No
			Yes No
			Yes No
			Yes No
			Yes No
			Yes No
			Yes No
			Yes No
			Yes No
			Yes No

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TEXAS OKLAHOMA PASSENGER RAIL STUDY

TOPRS LAREDO HEARING- ELECTED OFFICIALS SIGN-IN SHEET

Name/ Nombre	Elected Office/ Oficina Elegida	Would you like to speak tonight?	Mailing Address/ Dirección	Email
John Galo	Commissioner		1000 Houston	[redacted]
Ruben Soto Jr	chair, RMA			

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TEXAS OKLAHOMA PASSENGER RAIL STUDY

Appendix E
Public Hearing Transcripts and Public Hearing Certification

Public Hearing Certification

Project Name: Texas Oklahoma Passenger Rail Study

County Name Multiple

Control Section Job Numbers (CSJ): NA

Project Limits:

From: Oklahoma City, Oklahoma

To: South Texas

I certify that the following statements are true and apply to the project identified above.

A. Public Hearings were held on August 9, 2016 at the TxDOT District Office in Laredo, Texas, on August 10, 2016 at the TxDOT Austin District Office in Austin, Texas, and on August 11, 2016 at the offices of the North Central Texas Council of Governments in Arlington, Texas.

B. The economic and social effects of the project location and design and its impacts on the environment have been considered

C. In determining economic, social, and environmental effects, the statutory provisions of the Civil Rights Act of 1964 have been considered.

D. The project consistency with the goals and objectives of urban planning, as dictated by the community has been considered.

E. Requirements of Texas Administrative Code, Title 43, Part 1, Chapter 2, Subchapter E, Section 2.107 have been met.

Signed: Transportation Planning Section Director **Date:** 1-11-17

Name/Title

Print Name: Mark Werner

Date:

August 09, 2016

Case:

TxDoT OPEN HOUSE PUBLIC HEARING

Kim Tindall and Associates, LLC.
Phone:(210) 697-3400
Fax:(210) 697-3408
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Internet: www.KimTindallandAssociates.com

TEXAS DEPARTMENT OF TRANSPORTATION

OPEN HOUSE/PUBLIC HEARING

TEXAS-OKLAHOMA PASSENGER RAIL STUDY (TOPRS)

OKLAHOMA CITY, OK TO SOUTH TEXAS

TEXAS DEPARTMENT OF TRANSPORTATION

1817 BOB BULLOCK LOOP

LAREDO, TEXAS 78043

AUGUST 9, 2016

5:30 P.M. - 8:00 P.M.

MR. M. WERNER: Okay. Good evening. I'd like to thank everyone for coming, taking their time out of their evening to come for a public hearing. My name is Mark Werner. I'm the rail planning section director with TxDOT and I'm the public hearing official for tonight's meeting.

The purpose of tonight's meeting is to get public comments on the Texas/Oklahoma passenger rail study or, as we refer to it, the TOPRS. So we'll go through -- through a little short presentation here, and then we'll start the -- the public comment portion of our -- of our study. This is our agenda. I'll just kind of go over the overview, the environmental overview schedule and public comments.

Now, this is -- this is a formal hearing as opposed to the -- the public scoping meetings that we had in the past. At this meeting we won't be responding to any -- any comments or questions. We'll be -- we'll be just taking your comments. Those will be recorded down by the court reporter and those will be incorporated into the final EIS document that will be submitted to the FRA for approval.

As I said, this is the Texas/Oklahoma passenger rail study and the purpose of this study was to determine the feasibility of passenger rail service

in the -- in the corridor 850-mile corridor from Oklahoma City to South Texas.

Okay. I am here because I am the official and I'm giving the presentation. You're here, hopefully, to learn more and give comments on -- on the study. Tonight's -- It's an open -- like I said, it's an open house. There -- It's a hearing. We'll be taking comments. After the public comment period, staff will be around to answer any questions that you might have at -- at the end of the presentation. But this is the -- the purpose here is to get -- is for you guys to ask questions, review the study, as you need, and then provide your comments on -- on the study.

Now, there's several ways that you can submit comments. We'll be taking verbal comments at tonight's meeting. There is also comment cards back at the -- at the back desk that you can fill out tonight and put into your -- into the box. You can also mail them in to us or you can fax them or e-mail them to me or you can mail them in. All of the comments have to be in by 5:00 p.m. August 29th. That's the end of the comment period for this study. Okay. Let's go on to a little project overview here.

Like I said, this is -- the purpose of this study was to determine the feasibility of this new

passenger rail service in the 850-mile corridor from Oklahoma City down to South Texas. The study began in October of 2012. And then in the fall of 2013 we held a series of scoping -- public scoping meetings throughout the corridor to get input from the public on where they felt the service should go -- should operate, and it -- and during that time we got a lot of comments from the -- the -- the border region that there should be a connection down into Mexico.

In the winter of 2014 we refined the alternatives that were suggested and came down to the ones that we took further into the environmental process for evaluation. We looked at a range of service types: Everything from conventional Amtrak service to higher speed service, which is train trips up to 125 miles an hour, and then true high-speed rail service, which is speeds up to 220 miles an hour.

All of the alternatives that we -- that we're showing tonight were evaluated through a set of -- of environmental criteria and the -- and the purpose of tonight's meetings, of course, is to get your comments on the project.

Every environmental study needs to have a purpose and need. The purpose of this study is to enhance intercity mobility by providing enhanced

passenger rail service as a transportation alternative that is competitive with automobile, bus and air travel.

Now, the need for that as we're -- is -- is to address the existing passenger rail service or lack of in -- in the corridor and to meet future mobility needs. One of the reasons for that is with increased population and economic growth you're going to increase congestion and demand on our transportation network. There's limited intercity passenger rail service right now, as -- as everybody in the area is aware of, so we're looking to approve that. Also as you increase, you know, vehicular traffic your air quality climbs. This will be another way to address air quality issues. And then there's also -- with the increase in -- in truck traffic, we've got more trucks on the road, it's unsafe, and now you have -- we'd have another alternative to -- to travel back and forth and not be on the highways.

Okay. This is a planning level study, which is different from a project level, so this is a high-level study where you don't determine actual alignments. We just do general alignments to represent what -- what the service could look like and to come up with some estimated costs of the service. It's the first step in -- in evaluating the corridor to determine

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projects that will come out of it that can be evaluated in -- in as a project level study. And because of the size of this corridor -- we went this way because it's such a complex and large corridor, we need to determine what is feasible in the different segments of -- of the corridor. And at the completion of this study, after we've received comments -- and those will be included in the EIS -- there will be issued a Record of Decision by the Federal Railroad Administration, which is the -- the federal lead agency for this project.

Okay. This is -- Again, this is the study area of -- of -- we started with. We broke it up in -- in to three sections. Because of the -- the -- the size of the corridor we felt that there would probably be different needs, service needs for the different segments. So we have the northern section which is from Oklahoma City down to Dallas/Ft. Worth; central from Dallas/Ft. Worth to San Antonio; and then southern section down from San Antonio to the -- to the Rio Grande Valley and -- and Laredo.

Again, this is kind of about the type of services that we're looking at. Conventional Amtrak service, which is typically at speeds of 70 -- up to 70-90 miles an hour. Usually on the freight rails that's what they're allowed to run; your stations are

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closer together and your frequencies aren't -- aren't as high. And then you have the higher speeds, which is speeds up to 125 miles an hour. Anything above 125 has to be a fully grade separated contained system, and that type of service your trains are -- your stations are farther apart, a few more trains are per -- per -- per day. And then you have your true high speed, which is speeds up to 220 miles an hour. You're at increased frequency, your stations a hundred or more miles apart, and it's more kind of like a reserved seating, kind of like the -- like air service.

Environmental Overview: All of the alternatives were evaluated -- and there's boards back there that kind of show you what the impacts were -- against these environmental criteria. We looked at air quality, endangered species. We looked at farm use, impacts to agriculture. There's public safety. We also looked at the travel demand and the construction impacts. But all of these criteria were evaluated, each of these alternatives were evaluated using that -- using those criteria.

Okay. This is the -- the northern section that we're recommending for approval. This is the -- at -- there wasn't sufficient ridership in the northern section to support higher speed or high-speed passenger

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rail service, but there was enough to improve an Am- -- improve the Amtrak service. This route follows the existing Heartland Flyer route from Oklahoma City down to Ft. Worth and then makes a connection across the TRE line to Dallas, and there would be four to six train -- four to six round trips a day for this service.

Now, the central section, this had the -- the highest demand. There's sufficient ridership in this section to support true high-speed rail service in the corridor, and we came up with three different alternatives. Each one is -- is -- is on -- follows the same alignment from Hillsboro down to San Antonio, the difference being as you get into the Metroplex how we serve the Metroplex area. C4C is -- makes kind of a loop where one train would run up through like Dallas/Ft. Worth, and the next trains would run through Ft. Worth, so you'd serve both -- both cities in -- in the Metroplex evenly, which is -- I don't know if you're -- there's a lot of competition between Dallas and Ft. Worth, so... and this -- that -- that one would also make the connection to DFW airport. C4B would run up into Arlington, then you'd have a split going across to -- to Ft. Worth and to Dallas. And then C4A would -- would run up to Dallas to make a connection across, also with a connection to DFW airport and connect to

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Ft. Worth.

Now, the southern section -- I'm sure this is the one everybody is -- is most interested in here -- we came up with two alternatives for this corridor. There is the one which is the -- could be a higher speed or true high-speed service from San Antonio to Monter- -- to Monterrey, Mexico. Now, like I said, in our original public scoping meetings, there was -- you know, we -- we received a lot of comments that there was a lot of interest to connect down -- down into Mexico and to Monterrey, and there's a lot of business connections between Monter- -- Monterrey and -- and again, Dallas/Ft. Worth, so we were able to do some really high-level estimates on ridership. There needs to be more -- more work done to refine those numbers, but it -- it indicates there would be a sufficient ridership to support -- if not higher speed -- the true high-speed rail service down in -- into Monterrey. Another alternative that we developed is -- it would be a higher speed service, and that would connect San Antonio down into the Rio Grande Valley and it would also provide connections across to Corpus Christi and -- and Laredo.

Okay. As mentioned, this is the -- this is the draft Environmental Impact Statement for you to

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make comments on. We have a copy of it in -- in the back if anybody has, you know, time to read 860 pages of a document. It's also available on our website. We encourage you to take a look at it, you know, look over it and then provide your comments. Again, you can provide them over through -- you can take a comment card with you or you can e-mail your comments to me and they will be recorded as part of the environmental process. This is the study schedule that we're following.

We started, like I said, in the spring of 2013, we're now in the summer of 2016, with the -- the taking the comment -- the public comment period on the study. After the -- the comment period ends, the staff will -- will review the comments, we'll respond to those comments, and those will be included in the -- in the final EIS, and we hope to have a Record of Decision at the end of this year, the first part of next year. So these are the next steps.

As I kind of mentioned, we're going to compile all of the comments that we receive tonight; and then we also have a public meeting tomorrow night in Austin, and then another one the following night in Arlington. So we'll take all of those public comments, any comments that are submitted by mail or through e-mail, and those will be reviewed and -- and addressed

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and -- as part of the -- the final document that will be submitted to the FRA which, I stated earlier, is the lead federal agency on this project.

Okay. That concludes -- concludes the presentation portion of our study. Now, right now, I would like to take time to introduce any public officials.

We have Webb Commissioner John Galo here. I'd like to invite you to make any comments if you would like.

COMMISSIONER J. GALO: First of all, David, thank you very much, and, of course, to Pete and Melissa for hosting us here tonight. It's very nice to see so many people turned out for this. I mean, it's a very important issue for Laredo, and, I think, of course, we see all -- a lot of people that have some stroke here: IBC, and Montemayor of the City of Laredo, TAMIU. So I encourage you all, we have a -- a turn-in sheet there where -- with a comment card. Please, I think, it's very important that we support the high-speed rail not the -- the higher speed, the true high-speed rail and the connection going straight to Monterrey.

Of course, we need to make sure that they stop in Laredo, the Port of Laredo, because we have the

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entryway. And again, I just thank you. I hope you all submit all of those. Everybody pick -- please pick up one of those cards, turn it in, it's very important. Webb County has already been on this for quite some time.

We are a member of the High-Speed Rail Coalition and the TX 212 Infrastructure Coalition. Of course, the high-speed rail is -- is dealing strictly with high-speed rail and we're making sure that Laredo is not going to be bypassed. So the County Judge Tano Tijerina is -- is on the board there with them on that, and I'm the -- the second chair, if you say, on that coalition, and we continue to work to make sure that Laredo's not bypassed. Texas 21 is also another infrastructure lobby company that deals with all State of Texas highways, shipping ports, rail, anything to do with transportation in the State of Texas and trying to make sure that, you know, we maintain our thing. We have the Third Coast Initiative, and so I invite you to those.

And actually I'd to like make an announcement here tonight. Texas 21 will be holding their annual -- their -- their quarterly conference in Laredo, Texas, at La Posada Hotel, November the 10th and 11th, so if you have any interest in transportation

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issues, we'll be there. And I believe the Secretary of State is already confirmed to come down. We have some TxDOT commissioners, hopefully, coming down. We have quite a few people. The state reps some have confirmed. I believe, Zaffirini will also be there. Hopefully, Henry Cuellar's going to be there. So we -- and it's going to be mainly mayors and county judges from throughout the state attending; those are the people that are members of Texas 21. So I encourage you to go there and join us that -- that day on November 10th and 11th.

And again, please, very important, turn in those -- those comment cards supporting the true high-speed rail and the route that goes to Laredo, Texas, not by way of Alice. Thank you.

MR. M. WERNER: Thank you, Commissioner.

We also have the chairman of the Webb County -- with the Webb County City of Laredo RMA, Ruben Soto. Mr. Soto, would you like to make any comments or --

MR. R. SOTO: Well, not really.

MR. M. WERNER: Not to put you on the spot or anything.

MR. R. SOTO: Good afternoon. It's a pleasure being here and joining all of you, you know,

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seeing what the future holds for the city and the community and the State of Texas; and we look forward to hearing the presentation. It's -- it's rare that people are fewer -- forward thinking in -- in this community and we -- we really appreciate that coming from Henry Cuellar and company.

MR. M. WERNER: Okay. Thank you.

MR. R. SOTO: Thank you very much.

MR. M. WERNER: And I probably should mention that Congressman Cuellar is -- is on his way and he'll be here in about ten minutes, I've been told.

So we have some representatives from Mexico. I'd like to intro -- introduce them and also give them a chance to make any comments, if you'd like. We have Hugo Gonzalez, Director of Corporate Trade & Economics with Nuevo Leon. Monica Zozaya.

MS. M. ZOZAYA: Zozaya.

MR. M. WERNER: Zozaya. Sorry.

And then we also have Carlos Garza with Camino Colombia and Manuel Salvador Acuna Zepeda. I'd like to offer you the opportunity to make any comments if you'd like to, or --

MR. H. GONZALEZ: Sure. Well, good evening, everybody. My name Hugo Gonzalez. I'm the COO of the Colombia International Bridge and I'm very happy

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to be here with all of my -- my team and also my colleagues from the University of the State Nuevo Leon and municipality of Monterrey, and, obviously, all of you. And we are very happy to hear all of this progress that has been moving on about this international rail project, so we will be very attentive to -- to hear all of the comments, and anything that we can do to help we'll be more than glad to do it. Thank you very much.

MR. M. WERNER: Okay. Thank you.

Now, we'll start the public comment period. If anybody would like to speak, please fill out a comment card. And then if you don't want to, please -- please -- please fill out a comment card.

Okay. Now, if -- as I call your name, please come up to the podium, speak into the microphone. Please face the -- the court reporter. All comments are being recorded, so please do that.

Our first person is Reagan --

AUDIENCE MEMBER: He answered my question when I talked to him around the map.

MR. M. WERNER: Okay. So --

AUDIENCE MEMBER: I had a couple of questions and he answered them.

MR. M. WERNER: All right. Okay. Thank you.

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And then next we have Jerry Schwebel. Okay. Would you like to make a comment?

MR. G. SCHWEBEL: Sure. I have more questions than I have comments, I guess.

MR. M. WERNER: Okay. Well, this is -- is the -- the forum of this hearing is -- is, we're -- we're just taking comments, and then we -- we'll be happy -- after the comment period, we'll be back at the table and be happy -- happy to talk to you and answer any questions. But right now we're just taking the comments.

MR. G. SCHWEBEL: Well, I guess, my comment would be more along the lines of make sure that whatever planning is being done that we do continue to have these public forums. When it becomes more informative than -- you know, and more -- there may be more questions.

So, therefore, I think this is a -- this is a positive thing that we have this great input of participation, but I would -- only would like to see us as -- and encourage everyone who is participating in this process to have more than one venue such as this in order to -- to be as informative to the public. Because there can -- at times can be misconceptions of what's out there and what is happening, and those that are

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being for or -- or opposed to it may -- and as a result of perhaps a lack of adequate information that may be out there in the public. So I -- my message is more to encourage as much information out there to the public.

You have a private sector that needs to be, you know, more engaged, I believe. Even though, with all due respect to our public officials, that -- that -- that follow this a lot closely, you know, there's a lot of private sector involvement willing to participate and want to know more about what's going on.

We work very closely with our friends from Mexico. We know the importance of Mexico to us, and, therefore, we need to make sure that -- that any planning that's done that it is a bi-national planning, that we understand clearly what the potential impact would be and that -- in our community and this is where we're looking at. So the more information that's out there, the better. I encourage it to continue, but at the same time I think more than one particular venue is -- is necessary.

This is a very, you know, I guess, visionary and a very bold initiative. I think there's a lot of merit conceptually, but at the end of the day, you know, we want to make sure that -- that the proper planning and -- and involvement and knowing what the

stakeholder input will be allowed so in order to make the right recommendations to all parties that be.

So that -- that is my short message. And I -- and I really believe that there's still -- there's so many questions that are still out there that -- that I hope there will be a -- a venue or a forum where people can ask more questions and -- before the final decision. Because it seems to me that, from what I'm hearing just today and what I've read, this is already a moving target, it's already moving forward. And the question is, okay, so what are we going -- how -- what -- how can we become involved in -- in getting more information.

So that's my message today. Please consider the private sector involvement and participate in the forum. And I -- and I -- and I commend the organizers for tonight to make -- to -- that have put this thing together. Thank you.

MR. M. WERNER: Thank you for your comment. John?

COMMISSIONER J. GALO: And I guess, once again, just to -- to add to Gerry's comments, this is something that's moving actually very quickly. We have not been a member of that coalition for very long. It -- it's been around for quite some time, but there

is -- seems to be quite a bit of interest picking up.

In fact, I know the coalition will be meeting with some Chinese investors here in San Antonio, I think, next month or the end of this month. So it -- it is actually -- I believe there's a consortium from Japan, China and Germany actually looking at this project, so it's -- it's not a pie in the sky. It's -- you know, the numbers have to work for them, obviously, they have to get a return on their investment, but this thing is -- is actually gaining some speed, it's gaining ground, and there's people coming down here with real money and skills to be able to develop this project. Again, so we need to make sure that the numbers work -- or they need to make sure the numbers work and we need to make sure that -- that we're a part of the process.

And so I encourage you, like what Gerry said, the private sector needs to get involved as much as possible, and we invite them and anybody else who would like to join that coalition so they can stay informed as much as possible, and I'll be glad to give as much information as I have, when I get it. So, you know -- and again, if -- if TxDOT would be able to give more forums then that would be great so we can give some updates. But again, we invite you to join that coalition and -- IBC, I'm expecting you. All right.

Thank you very much.

MR. M. WERNER: All right. Thank you.

Is there anyone else who would like to make a public comment?

Okay. Well, that will conclude the -- Okay. We have more? Okay. Good.

Okay. Ruben Soto.

MR. R. SOTO: I'm speaking as a citizen of Laredo and Webb County not as my position in the chair. And what I see in the fact sheet is the rail -- there's several options that have been presented, and I've been to a prior meeting with -- with Jeff Gosden (phonetic) and Henry Cuellar and others in San Antonio and they're discussing this project -- and I think it's a great project. But some questions come up as to why the City of Laredo is not included in it as a proposed route.

I know the proposed route that -- one of the proposed route is going through Colombia bridge, and personally I -- I think the city could benefit much more if it went through the city as far as commerce, as far as passengers going through the City of Laredo, dropping off, stopping off, shopping in Laredo, spending money here and the other side of the bridge.

Also, you know, personally, I would like to see the existing rail that goes through downtown and

the City of Laredo, hopefully, that route that -- for transportation of goods could be mount -- moved somewhere in south Laredo and bypass the whole city altogether and, instead, in the future, maybe use that existing route that goes through the City of Laredo, make it above grade and use that as a passenger rail service; and that way you eliminate the problems of all of the traffic being stopped at the rail crossings, and you also have a -- a very beautiful rail passing through the City of Laredo, down in Nuevo Laredo, Monterrey, et cetera, down all the way to wherever it's going to end.

And so that's just my personal comments, you know. I -- I hope they consider that. I don't know how far along you are with this project, but, to me, it would probably make more sense if it goes through the City of Laredo. Thank you.

MR. M. WERNER: Thank you for your comment.

Is there anyone else who would like to make a comment?

Okay. We have Gene Gonzalez.

MR. R. GONZALEZ: Rene.

MR. M. WERNER: Rene Gonzalez. I'm sorry.

MR. R. GONZALEZ: Just to follow up on

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what Gerry and Commissioner Galo were saying, you have a NEPA resources and to involve the community more in that. The NEPA resource has steps and processes and subject matters that they use. The challenge becomes that that's not communicated individually to the -- as it's going through the process, and that's one of the things you may want to look at when involving the communities is, once you finish a process, report to the community that you've done the environmental that you've done the engineering that you've done as -- as a step-by-step process from a communications standpoint, because this is very important. And one question that may come up is, did you answer these questions, and, yes, you did, but no one knew about them, and then it challenges the next step.

And we've seen that historically as individuals that have been involved in transportation before is, well, you're surprised by something that comes up at a later date, because no one was informed of that process, and you have a lot of information and sometimes it's hard to get all of that information and sink into the individuals involved. And, of course, there are individuals involved and there are coalitions that exist, but the average citizen -- or even if it's just a mail out or a -- or an e-mail or -- saying this

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part of the state rail plan has been done.

And here's an example. Like you said, we have the hearings and the applications online, add those on -- add those to the online process and -- and like that is a detailed individual process. And, of course, we all know it's 60 to a thousand pages sometimes, but, at least, you know exactly where -- everyone will know and is on the same page where we are on this process and how to get there.

MR. M. WERNER: All right. Thank you.

Okay. Any other -- any other public comments? Your name?

MR. A. CARRANCO: Andrew Carranco, sir.

MR. M. WERNER: Thank you.

MR. A. CARRANCO: Just to echo Mr. Soto's comments. While the City of Laredo's expansion is expected to go out to the Camino Colombia bridge in the next 40 or 50 years, I lived in a town in Europe where the train station was about 20 miles out of town, and it does not really promote excellent commerce between Madrid and Barcelona when they're second large -- let's see -- Tarragona was the third largest port of the -- of the nation was off the main railhead. I studied history, and, therefore, you read about towns that moved 20 or 30 miles just to be close to the railhead.

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I believe that it's necessary to have that -- a terminal that's in the city, in the center of the city, whether it's in downtown Laredo or even if it's slightly off by 5 or 6 miles, but certainly not 20 or 30 miles as is what is proposed in the first -- in, I believe, the first option. So just to echo Mr. Soto's sentiments again.

MR. M. WERNER: All right. Thank you.

Okay. Anybody else?

MR. M. PENA: For the rec- -- for the record, my name is Mario Pena. I'm with the International Bank of Commerce and I'm also the current chairman of the Laredo Chamber of Commerce, and we have our president here today, Miguel Conchas. I, for the life of me, cannot recall -- and maybe I was asleep in 2013 -- about the -- the hearings that were held during that time. So I'm hearing about it now and like other people have expressed, you know, we're playing catch up. It's like it's already almost a done deal.

And, you know, we're talking about informing or getting the private sector involved, just the Chamber of Commerce alone represents 715 active members. That's a huge chunk of -- of the private sector business. There's also about eight other organizations in town that represent different sectors.

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Like the licensed U.S. Customs Health Brokers Association, the Laredo -- I'm sorry -- Logistics and Manufacturing Association, Laredo Development Foundation, La Asociacion Empresarios Mexicanos, and I can go on and on. We have Laredo Builders Association here. All of these are business organizations and collectively they probably represent over 2,000 businesses. I think it would have been a good idea to have had a little bit more notice, a little bit more information, and have held a meeting specifically targeted to those groups and get their input. Because, you know, it's -- it's too important, you know, just to, you know, have one meeting and expect the feedback from a handful of people and say, okay, we got feedback. I -- I think it's very, very important that we get feedback from all of the active organizations in town. Thank you.

MR. M. WERNER: All right. Thank you.

Okay. I have been told that Congressman Cuellar is -- will be arriving here shortly. I'd like to give anybody else the opportunity to -- to make comments if they would like.

COMMISSIONER J. GALO: Does he only get three minutes?

MR. M. WERNER: I think we'll give him

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more than three minutes.
(Discussion off the record.)
MR. M. WERNER: Okay. Ladies and gentlemen, we have -- Congressman Henry Cuellar has joined us. So I'd like to throw it to the Congressman and give him a chance -- a chance to make some -- make some comments.
CONG. H. CUELLAR: Thank you. Yeah. I don't want to -- I'm actually more here to listen. Sorry. I was at the children's -- I was at the children's home right now presenting some books.
Commissioner, how are you all doing?
I -- I just -- First of all, thank you so much.
MR. M. WERNER: You bet. Thank you.
CONG. H. CUELLAR: We're -- Well, let me just give you a quick background. I think you all know the background on this.
In 2008, there was going to be a study between -- have a study from Oklahoma to San Antonio. I added an amendment, changed the law, that they ought to look at South Texas. I couldn't say Laredo because, as you know, we can't do any earmarks anymore, so it just said South Texas. The Department of Transportation is looking at different areas.

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I think at one time they were looking straight going into Corpus, one into the -- I believe, Brownsville, one in the McAllen area, and then one in this -- in this particular area. I think now it's been limit -- I think it's -- it's been narrowed down to two options: One going in from Laredo to San Diego, and then from there it can go to Corpus or you go down McAllen and it can come back to Laredo. Or another one that -- it gets close to Laredo. And I think the reason why it gets close to Laredo -- and we'll work with the city -- is that Monterrey already has the right-of-way on this and we've got to make sure that -- that we all work this out. It's a long-term project. It's a long-term project. It's not going to be done overnight. And it's going to be one that the private sector might come in -- it might be a Mexican company, it might be an American company, it could be a Spanish company, it could be a French company, it could be a Japanese company -- with a joint partnership on that. But the first part that we got to do is to make sure that we get this study.
I don't know if y'all went over the -- the time period, the time period as to when the study -- this is a preliminary. I -- I hope you all have looked at the preliminary study that has been done. I know we

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got some friends from Monterrey and I want to thank them for traveling all the way up here. I was in Monterrey a couple days before July the 4th, and I see some of them here, and Javier Medina, my good friend, and all of the friends that we have here from Monterrey, but I certainly just want to say thank you.
I'm not here to speak, even though I'm doing that right now, but I'm more here to listen so I just want to say thank you. A long-term project. But everything long term starts off with a first step on that.
So, anyway, thank you so much. I'll be back here for a while if y'all need anything. And then I have to go out of town first thing in the morning so I've got to go home and pack, but I just want to say thank you so much for -- for being here. Thank you so much.
MR. M. WERNER: Okay. Thank you, Congressman. Thank you.
(Applause.)
CONG. H. CUELLAR: And, I'm sorry, I missed the -- who is the speak -- Mario Pena, I'm sorry I missed your speech.
MR. M. WERNER: Okay. That -- If there's no one else who would like to make a public comment that

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will conclude the public comment portion of the -- of the -- of the meeting. The staff will be back at the tables. We'll be happy to answer -- answer any questions that anyone -- anyone may have.
And again, please take a comment card, fill it out, e-mail it, mail it in. We'd like to -- we need -- we need to get the comments as part of the -- the environmental process. So, again, thank you everyone. I know it's -- we appreciate you taking time out of your evening to come -- to come to the meeting, and it -- it's very important that we -- that we get your comments and input on this study. So thank you very much.
* * * * *

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STATE OF TEXAS)

I, Dicie Lee Eytcheson, a Certified Shorthand Reporter in and for the State of Texas, do hereby certify that this transcript is as true and accurate a record as possible, transcribed by me through computer-aided transcription.

And further certify that I am not a relative or employee of any of the parties hereto, nor interested directly or indirectly in the outcome of this session.

WITNESS MY HAND, this the _____ day of _____, A.D. 2016.

Dicie Lee Eytcheson

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OKLAHOMA CITY, OK TO SOUTH TEXAS

TEXAS DEPARTMENT OF TRANSPORTATION

1817 BOB BULLOCK LOOP

LAREDO, TEXAS 78043

AUGUST 9, 2016

5:30 P.M. - 8:00 P.M.

MR. M. WERNER: Okay. Good evening. I'd like to thank everyone for coming, taking their time out of their evening to come for a public hearing. My name is Mark Werner. I'm the rail planning section director with TxDOT and I'm the public hearing official for tonight's meeting.

The purpose of tonight's meeting is to get public comments on the Texas/Oklahoma passenger rail study or, as we refer to it, the TOPRS. So we'll go through -- through a little short presentation here, and then we'll start the -- the public comment portion of our -- of our study. This is our agenda. I'll just kind of go over the overview, the environmental overview schedule and public comments.

Now, this is -- this is a formal hearing as opposed to the -- the public scoping meetings that we had in the past. At this meeting we won't be responding to any -- any comments or questions. We'll be -- we'll be just taking your comments. Those will be recorded down by the court reporter and those will be incorporated into the final EIS document that will be submitted to the FRA for approval.

As I said, this is the Texas/Oklahoma passenger rail study and the purpose of this study was to determine the feasibility of passenger rail service

in the -- in the corridor 850-mile corridor from Oklahoma City to South Texas.

Okay. I am here because I am the official and I'm giving the presentation. You're here, hopefully, to learn more and give comments on -- on the study. Tonight's -- It's an open -- like I said, it's an open house. There -- It's a hearing. We'll be taking comments. After the public comment period, staff will be around to answer any questions that you might have at -- at the end of the presentation. But this is the -- the purpose here is to get -- is for you guys to ask questions, review the study, as you need, and then provide your comments on -- on the study.

Now, there's several ways that you can submit comments. We'll be taking verbal comments at tonight's meeting. There is also comment cards back at the -- at the back desk that you can fill out tonight and put into your -- into the box. You can also mail them in to us or you can fax them or e-mail them to me or you can mail them in. All of the comments have to be in by 5:00 p.m. August 29th. That's the end of the comment period for this study. Okay. Let's go on to a little project overview here.

Like I said, this is -- the purpose of this study was to determine the feasibility of this new

passenger rail service in the 850-mile corridor from Oklahoma City down to South Texas. The study began in October of 2012. And then in the fall of 2013 we held a series of scoping -- public scoping meetings throughout the corridor to get input from the public on where they felt the service should go -- should operate, and it -- and during that time we got a lot of comments from the -- the -- the border region that there should be a connection down into Mexico.

In the winter of 2014 we refined the alternatives that were suggested and came down to the ones that we took further into the environmental process for evaluation. We looked at a range of service types: Everything from conventional Amtrak service to higher speed service, which is train trips up to 125 miles an hour, and then true high-speed rail service, which is speeds up to 220 miles an hour.

All of the alternatives that we -- that we're showing tonight were evaluated through a set of -- of environmental criteria and the -- and the purpose of tonight's meetings, of course, is to get your comments on the project.

Every environmental study needs to have a purpose and need. The purpose of this study is to enhance intercity mobility by providing enhanced

passenger rail service as a transportation alternative that is competitive with automobile, bus and air travel.

Now, the need for that as we're -- is -- is to address the existing passenger rail service or lack of in -- in the corridor and to meet future mobility needs. One of the reasons for that is with increased population and economic growth you're going to increase congestion and demand on our transportation network. There's limited intercity passenger rail service right now, as -- as everybody in the area is aware of, so we're looking to approve that. Also as you increase, you know, vehicular traffic your air quality climbs. This will be another way to address air quality issues. And then there's also -- with the increase in -- in truck traffic, we've got more trucks on the road, it's unsafe, and now you have -- we'd have another alternative to -- to travel back and forth and not be on the highways.

Okay. This is a planning level study, which is different from a project level, so this is a high-level study where you don't determine actual alignments. We just do general alignments to represent what -- what the service could look like and to come up with some estimated costs of the service. It's the first step in -- in evaluating the corridor to determine

projects that will come out of it that can be evaluated in -- in as a project level study. And because of the size of this corridor -- we went this way because it's such a complex and large corridor, we need to determine what is feasible in the different segments of -- of the corridor. And at the completion of this study, after we've received comments -- and those will be included in the EIS -- there will be issued a Record of Decision by the Federal Railroad Administration, which is the -- the federal lead agency for this project.

Okay. This is -- Again, this is the study area of -- of -- we started with. We broke it up in -- in to three sections. Because of the -- the -- the size of the corridor we felt that there would probably be different needs, service needs for the different segments. So we have the northern section which is from Oklahoma City down to Dallas/Ft. Worth; central from Dallas/Ft. Worth to San Antonio; and then southern section down from San Antonio to the -- to the Rio Grande Valley and -- and Laredo.

Again, this is kind of about the type of services that we're looking at. Conventional Amtrak service, which is typically at speeds of 70 -- up to 70-90 miles an hour. Usually on the freight rails that's what they're allowed to run; your stations are

closer together and your frequencies aren't -- aren't as high. And then you have the higher speeds, which is speeds up to 125 miles an hour. Anything above 125 has to be a fully grade separated contained system, and that type of service your trains are -- your stations are farther apart, a few more trains are per -- per -- per day. And then you have your true high speed, which is speeds up to 220 miles an hour. You're at increased frequency, your stations a hundred or more miles apart, and it's more kind of like a reserved seating, kind of like the -- like air service.

Environmental Overview: All of the alternatives were evaluated -- and there's boards back there that kind of show you what the impacts were -- against these environmental criteria. We looked at air quality, endangered species. We looked at farm use, impacts to agriculture. There's public safety. We also looked at the travel demand and the construction impacts. But all of these criteria were evaluated, each of these alternatives were evaluated using that -- using those criteria.

Okay. This is the -- the northern section that we're recommending for approval. This is the -- at -- there wasn't sufficient ridership in the northern section to support higher speed or high-speed passenger

rail service, but there was enough to improve an Am- -- improve the Amtrak service. This route follows the existing Heartland Flyer route from Oklahoma City down to Ft. Worth and then makes a connection across the TRE line to Dallas, and there would be four to six train -- four to six round trips a day for this service.

Now, the central section, this had the -- the highest demand. There's sufficient ridership in this section to support true high-speed rail service in the corridor, and we came up with three different alternatives. Each one is -- is -- is on -- follows the same alignment from Hillsboro down to San Antonio, the difference being as you get into the Metroplex how we serve the Metroplex area. C4C is -- makes kind of a loop where one train would run up through like Dallas/Ft. Worth, and the next trains would run through Ft. Worth, so you'd serve both -- both cities in -- in the Metroplex evenly, which is -- I don't know if you're -- there's a lot of competition between Dallas and Ft. Worth, so... and this -- that -- that one would also make the connection to DFW airport. C4B would run up into Arlington, then you'd have a split going across to -- to Ft. Worth and to Dallas. And then C4A would -- would run up to Dallas to make a connection across, also with a connection to DFW airport and connect to

Ft. Worth.

Now, the southern section -- I'm sure this is the one everybody is -- is most interested in here -- we came up with two alternatives for this corridor. There is the one which is the -- could be a higher speed or true high-speed service from San Antonio to Monter- -- to Monterrey, Mexico. Now, like I said, in our original public scoping meetings, there was -- you know, we -- we received a lot of comments that there was a lot of interest to connect down -- down into Mexico and to Monterrey, and there's a lot of business connections between Monter- -- Monterrey and -- and again, Dallas/Ft. Worth, so we were able to do some really high-level estimates on ridership. There needs to be more -- more work done to refine those numbers, but it -- it indicates there would be a sufficient ridership to support -- if not higher speed -- the true high-speed rail service down in -- into Monterrey. Another alternative that we developed is -- it would be a higher speed service, and that would connect San Antonio down into the Rio Grande Valley and it would also provide connections across to Corpus Christi and -- and Laredo.

Okay. As mentioned, this is the -- this is the draft Environmental Impact Statement for you to

make comments on. We have a copy of it in -- in the back if anybody has, you know, time to read 860 pages of a document. It's also available on our website. We encourage you to take a look at it, you know, look over it and then provide your comments. Again, you can provide them over through -- you can take a comment card with you or you can e-mail your comments to me and they will be recorded as part of the environmental process. This is the study schedule that we're following.

We started, like I said, in the spring of 2013, we're now in the summer of 2016, with the -- the taking the comment -- the public comment period on the study. After the -- the comment period ends, the staff will -- will review the comments, we'll respond to those comments, and those will be included in the -- in the final EIS, and we hope to have a Record of Decision at the end of this year, the first part of next year. So these are the next steps.

As I kind of mentioned, we're going to compile all of the comments that we receive tonight; and then we also have a public meeting tomorrow night in Austin, and then another one the following night in Arlington. So we'll take all of those public comments, any comments that are submitted by mail or through e-mail, and those will be reviewed and -- and addressed

and -- as part of the -- the final document that will be submitted to the FRA which, I stated earlier, is the lead federal agency on this project.

Okay. That concludes -- concludes the presentation portion of our study. Now, right now, I would like to take time to introduce any public officials.

We have Webb Commissioner John Galo here. I'd like to invite you to make any comments if you would like.

COMMISSIONER J. GALO: First of all, David, thank you very much, and, of course, to Pete and Melissa for hosting us here tonight. It's very nice to see so many people turned out for this. I mean, it's a very important issue for Laredo, and, I think, of course, we see all -- a lot of people that have some stroke here: IBC, and Montemayor of the City of Laredo, TAMIU. So I encourage you all, we have a -- a turn-in sheet there where -- with a comment card. Please, I think, it's very important that we support the high-speed rail not the -- the higher speed, the true high-speed rail and the connection going straight to Monterrey.

Of course, we need to make sure that they stop in Laredo, the Port of Laredo, because we have the

entryway. And again, I just thank you. I hope you all submit all of those. Everybody pick -- please pick up one of those cards, turn it in, it's very important. Webb County has already been on this for quite some time.

We are a member of the High-Speed Rail Coalition and the TX 212 Infrastructure Coalition. Of course, the high-speed rail is -- is dealing strictly with high-speed rail and we're making sure that Laredo is not going to be bypassed. So the County Judge Tano Tijerina is -- is on the board there with them on that, and I'm the -- the second chair, if you say, on that coalition, and we continue to work to make sure that Laredo's not bypassed. Texas 21 is also another infrastructure lobby company that deals with all State of Texas highways, shipping ports, rail, anything to do with transportation in the State of Texas and trying to make sure that, you know, we maintain our thing. We have the Third Coast Initiative, and so I invite you to those.

And actually I'd to like make an announcement here tonight. Texas 21 will be holding their annual -- their -- their quarterly conference in Laredo, Texas, at La Posada Hotel, November the 10th and 11th, so if you have any interest in transportation

issues, we'll be there. And I believe the Secretary of State is already confirmed to come down. We have some TxDOT commissioners, hopefully, coming down. We have quite a few people. The state reps some have confirmed. I believe, Zaffirini will also be there. Hopefully, Henry Cuellar's going to be there. So we -- and it's going to be mainly mayors and county judges from throughout the state attending; those are the people that are members of Texas 21. So I encourage you to go there and join us that -- that day on November 10th and 11th.

And again, please, very important, turn in those -- those comment cards supporting the true high-speed rail and the route that goes to Laredo, Texas, not by way of Alice. Thank you.

MR. M. WERNER: Thank you, Commissioner.

We also have the chairman of the Webb County -- with the Webb County City of Laredo RMA, Ruben Soto. Mr. Soto, would you like to make any comments or --

MR. R. SOTO: Well, not really.

MR. M. WERNER: Not to put you on the spot or anything.

MR. R. SOTO: Good afternoon. It's a pleasure being here and joining all of you, you know,

seeing what the future holds for the city and the community and the State of Texas; and we look forward to hearing the presentation. It's -- it's rare that people are fewer -- forward thinking in -- in this community and we -- we really appreciate that coming from Henry Cuellar and company.

MR. M. WERNER: Okay. Thank you.

MR. R. SOTO: Thank you very much.

MR. M. WERNER: And I probably should mention that Congressman Cuellar is -- is on his way and he'll be here in about ten minutes, I've been told.

So we have some representatives from Mexico. I'd like to intro -- introduce them and also give them a chance to make any comments, if you'd like. We have Hugo Gonzalez, Director of Corporate Trade & Economics with Nuevo Leon. Monica Zozaya.

MS. M. ZOZAYA: Zozaya.

MR. M. WERNER: Zozaya. Sorry.

And then we also have Carlos Garza with Camino Colombia and Manuel Salvador Acuna Zepeda. I'd like to offer you the opportunity to make any comments if you'd like to, or --

MR. H. GONZALEZ: Sure. Well, good evening, everybody. My name Hugo Gonzalez. I'm the COO of the Colombia International Bridge and I'm very happy

to be here with all of my -- my team and also my colleagues from the University of the State Nuevo Leon and municipality of Monterrey, and, obviously, all of you. And we are very happy to hear all of this progress that has been moving on about this international rail project, so we will be very attentive to -- to hear all of the comments, and anything that we can do to help we'll be more than glad to do it. Thank you very much.

MR. M. WERNER: Okay. Thank you.

Now, we'll start the public comment period. If anybody would like to speak, please fill out a comment card. And then if you don't want to, please -- please -- please fill out a comment card.

Okay. Now, if -- as I call your name, please come up to the podium, speak into the microphone. Please face the -- the court reporter. All comments are being recorded, so please do that.

Our first person is Reagan --

AUDIENCE MEMBER: He answered my question when I talked to him around the map.

MR. M. WERNER: Okay. So --

AUDIENCE MEMBER: I had a couple of questions and he answered them.

MR. M. WERNER: All right. Okay. Thank you.

And then next we have Jerry Schwebel. Okay. Would you like to make a comment?

MR. G. SCHWEBEL: Sure. I have more questions than I have comments, I guess.

MR. M. WERNER: Okay. Well, this is -- is the -- the forum of this hearing is -- is, we're -- we're just taking comments, and then we -- we'll be happy -- after the comment period, we'll be back at the table and be happy -- happy to talk to you and answer any questions. But right now we're just taking the comments.

MR. G. SCHWEBEL: Well, I guess, my comment would be more along the lines of make sure that whatever planning is being done that we do continue to have these public forums. When it becomes more informative than -- you know, and more -- there may be more questions.

So, therefore, I think this is a -- this is a positive thing that we have this great input of participation, but I would -- only would like to see us as -- and encourage everyone who is participating in this process to have more than one venue such as this in order to -- to be as informative to the public. Because there can -- at times can be misconceptions of what's out there and what is happening, and those that are

being for or -- or opposed to it may -- and as a result of perhaps a lack of adequate information that may be out there in the public. So I -- my message is more to encourage as much information out there to the public.

You have a private sector that needs to be, you know, more engaged, I believe. Even though, with all due respect to our public officials, that -- that -- that follow this a lot closely, you know, there's a lot of private sector involvement willing to participate and want to know more about what's going on.

We work very closely with our friends from Mexico. We know the importance of Mexico to us, and, therefore, we need to make sure that -- that any planning that's done that it is a bi-national planning, that we understand clearly what the potential impact would be and that -- in our community and this is where we're looking at. So the more information that's out there, the better. I encourage it to continue, but at the same time I think more than one particular venue is -- is necessary.

This is a very, you know, I guess, visionary and a very bold initiative. I think there's a lot of merit conceptually, but at the end of the day, you know, we want to make sure that -- that the proper planning and -- and involvement and knowing what the

stakeholder input will be allowed so in order to make the right recommendations to all parties that be.

So that -- that is my short message. And I -- and I really believe that there's still -- there's so many questions that are still out there that -- that I hope there will be a -- a venue or a forum where people can ask more questions and -- before the final decision. Because it seems to me that, from what I'm hearing just today and what I've read, this is already a moving target, it's already moving forward. And the question is, okay, so what are we going -- how -- what -- how can we become involved in -- in getting more information.

So that's my message today. Please consider the private sector involvement and participate in the forum. And I -- and I -- and I commend the organizers for tonight to make -- to -- that have put this thing together. Thank you.

MR. M. WERNER: Thank you for your comment. John?

COMMISSIONER J. GALO: And I guess, once again, just to -- to add to Gerry's comments, this is something that's moving actually very quickly. We have not been a member of that coalition for very long. It -- it's been around for quite some time, but there

is -- seems to be quite a bit of interest picking up.

In fact, I know the coalition will be meeting with some Chinese investors here in San Antonio, I think, next month or the end of this month. So it -- it is actually -- I believe there's a consortium from Japan, China and Germany actually looking at this project, so it's -- it's not a pie in the sky. It's -- you know, the numbers have to work for them, obviously, they have to get a return on their investment, but this thing is -- is actually gaining some speed, it's gaining ground, and there's people coming down here with real money and skills to be able to develop this project. Again, so we need to make sure that the numbers work -- or they need to make sure the numbers work and we need to make sure that -- that we're a part of the process.

And so I encourage you, like what Gerry said, the private sector needs to get involved as much as possible, and we invite them and anybody else who would like to join that coalition so they can stay informed as much as possible, and I'll be glad to give as much information as I have, when I get it. So, you know -- and again, if -- if TxDOT would be able to give more forums then that would be great so we can give some updates. But again, we invite you to join that coalition and -- IBC, I'm expecting you. All right.

Thank you very much.

MR. M. WERNER: All right. Thank you.

Is there anyone else who would like to make a public comment?

Okay. Well, that will conclude the -- Okay. We have more? Okay. Good.

Okay. Ruben Soto.

MR. R. SOTO: I'm speaking as a citizen of Laredo and Webb County not as my position in the chair. And what I see in the fact sheet is the rail -- there's several options that have been presented, and I've been to a prior meeting with -- with Jeff Gosden (phonetic) and Henry Cuellar and others in San Antonio and they're discussing this project -- and I think it's a great project. But some questions come up as to why the City of Laredo is not included in it as a proposed route.

I know the proposed route that -- one of the proposed route is going through Colombia bridge, and personally I -- I think the city could benefit much more if it went through the city as far as commerce, as far as passengers going through the City of Laredo, dropping off, stopping off, shopping in Laredo, spending money here and the other side of the bridge.

Also, you know, personally, I would like to see the existing rail that goes through downtown and

the City of Laredo, hopefully, that route that -- for transportation of goods could be mount -- moved somewhere in south Laredo and bypass the whole city altogether and, instead, in the future, maybe use that existing route that goes through the City of Laredo, make it above grade and use that as a passenger rail service; and that way you eliminate the problems of all of the traffic being stopped at the rail crossings, and you also have a -- a very beautiful rail passing through the City of Laredo, down in Nuevo Laredo, Monterrey, et cetera, down all the way to wherever it's going to end.

And so that's just my personal comments, you know. I -- I hope they consider that. I don't know how far along you are with this project, but, to me, it would probably make more sense if it goes through the City of Laredo. Thank you.

MR. M. WERNER: Thank you for your comment.

Is there anyone else who would like to make a comment?

Okay. We have Gene Gonzalez.

MR. R. GONZALEZ: Rene.

MR. M. WERNER: Rene Gonzalez. I'm sorry.

MR. R. GONZALEZ: Just to follow up on

what Gerry and Commissioner Galo were saying, you have a NEPA resources and to involve the community more in that. The NEPA resource has steps and processes and subject matters that they use. The challenge becomes that that's not communicated individually to the -- as it's going through the process, and that's one of the things you may want to look at when involving the communities is, once you finish a process, report to the community that you've done the environmental that you've done the engineering that you've done as -- as a step-by-step process from a communications standpoint, because this is very important. And one question that may come up is, did you answer these questions, and, yes, you did, but no one knew about them, and then it challenges the next step.

And we've seen that historically as individuals that have been involved in transportation before is, well, you're surprised by something that comes up at a later date, because no one was informed of that process, and you have a lot of information and sometimes it's hard to get all of that information and sink into the individuals involved. And, of course, there are individuals involved and there are coalitions that exist, but the average citizen -- or even if it's just a mail out or a -- or an e-mail or -- saying this

part of the state rail plan has been done.

And here's an example. Like you said, we have the hearings and the applications online, add those on -- add those to the online process and -- and like that is a detailed individual process. And, of course, we all know it's 60 to a thousand pages sometimes, but, at least, you know exactly where -- everyone will know and is on the same page where we are on this process and how to get there.

MR. M. WERNER: All right. Thank you.

Okay. Any other -- any other public comments? Your name?

MR. A. CARRANCO: Andrew Carranco, sir.

MR. M. WERNER: Thank you.

MR. A. CARRANCO: Just to echo Mr. Soto's comments. While the City of Laredo's expansion is expected to go out to the Camino Colombia bridge in the next 40 or 50 years, I lived in a town in Europe where the train station was about 20 miles out of town, and it does not really promote excellent commerce between Madrid and Barcelona when they're second large -- let's see -- Tarragona was the third largest port of the -- of the nation was off the main railhead. I studied history, and, therefore, you read about towns that moved 20 or 30 miles just to be close to the railhead.

I believe that it's necessary to have that -- a terminal that's in the city, in the center of the city, whether it's in downtown Laredo or even if it's slightly off by 5 or 6 miles, but certainly not 20 or 30 miles as is what is proposed in the first -- in, I believe, the first option. So just to echo Mr. Soto's sentiments again.

MR. M. WERNER: All right. Thank you.

Okay. Anybody else?

MR. M. PENA: For the rec- -- for the record, my name is Mario Pena. I'm with the International Bank of Commerce and I'm also the current chairman of the Laredo Chamber of Commerce, and we have our president here today, Miguel Conchas. I, for the life of me, cannot recall -- and maybe I was asleep in 2013 -- about the -- the hearings that were held during that time. So I'm hearing about it now and like other people have expressed, you know, we're playing catch up. It's like it's already almost a done deal.

And, you know, we're talking about informing or getting the private sector involved, just the Chamber of Commerce alone represents 715 active members. That's a huge chunk of -- of the private sector business. There's also about eight other organizations in town that represent different sectors.

Like the licensed U.S. Customs Health Brokers Association, the Laredo -- I'm sorry -- Logistics and Manufacturing Association, Laredo Development Foundation, La Asociacion Empresarios Mexicanos, and I can go on and on. We have Laredo Builders Association here. All of these are business organizations and collectively they probably represent over 2,000 businesses. I think it would have been a good idea to have had a little bit more notice, a little bit more information, and have held a meeting specifically targeted to those groups and get their input. Because, you know, it's -- it's too important, you know, just to, you know, have one meeting and expect the feedback from a handful of people and say, okay, we got feedback. I -- I think it's very, very important that we get feedback from all of the active organizations in town. Thank you.

MR. M. WERNER: All right. Thank you.

Okay. I have been told that Congressman Cuellar is -- will be arriving here shortly. I'd like to give anybody else the opportunity to -- to make comments if they would like.

COMMISSIONER J. GALO: Does he only get three minutes?

MR. M. WERNER: I think we'll give him

more than three minutes.

(Discussion off the record.)

MR. M. WERNER: Okay. Ladies and gentlemen, we have -- Congressman Henry Cuellar has joined us. So I'd like to throw it to the Congressman and give him a chance -- a chance to make some -- make some comments.

CONG. H. CUELLAR: Thank you. Yeah. I don't want to -- I'm actually more here to listen. Sorry. I was at the children's -- I was at the children's home right now presenting some books.

Commissioner, how are you all doing?

I -- I just -- First of all, thank you so much.

MR. M. WERNER: You bet. Thank you.

CONG. H. CUELLAR: We're -- Well, let me just give you a quick background. I think you all know the background on this.

In 2008, there was going to be a study between -- have a study from Oklahoma to San Antonio. I added an amendment, changed the law, that they ought to look at South Texas. I couldn't say Laredo because, as you know, we can't do any earmarks anymore, so it just said South Texas. The Department of Transportation is looking at different areas.

I think at one time they were looking straight going into Corpus, one into the -- I believe, Brownsville, one in the McAllen area, and then one in this -- in this particular area. I think now it's been limit -- I think it's -- it's been narrowed down to two options: One going in from Laredo to San Diego, and then from there it can go to Corpus or you go down McAllen and it can come back to Laredo. Or another one that -- it gets close to Laredo. And I think the reason why it gets close to Laredo -- and we'll work with the city -- is that Monterrey already has the right-of-way on this and we've got to make sure that -- that we all work this out. It's a long-term project. It's a long-term project. It's not going to be done overnight. And it's going to be one that the private sector might come in -- it might be a Mexican company, it might be an American company, it could be a Spanish company, it could be a French company, it could be a Japanese company -- with a joint partnership on that. But the first part that we got to do is to make sure that we get this study.

I don't know if y'all went over the -- the time period, the time period as to when the study -- this is a preliminary. I -- I hope you all have looked at the preliminary study that has been done. I know we

got some friends from Monterrey and I want to thank them for traveling all the way up here. I was in Monterrey a couple days before July the 4th, and I see some of them here, and Javier Medina, my good friend, and all of the friends that we have here from Monterrey, but I certainly just want to say thank you.

I'm not here to speak, even though I'm doing that right now, but I'm more here to listen so I just want to say thank you. A long-term project. But everything long term starts off with a first step on that.

So, anyway, thank you so much. I'll be back here for a while if y'all need anything. And then I have to go out of town first thing in the morning so I've got to go home and pack, but I just want to say thank you so much for -- for being here. Thank you so much.

MR. M. WERNER: Okay. Thank you, Congressman. Thank you.

(Applause.)

CONG. H. CUELLAR: And, I'm sorry, I missed the -- who is the speak -- Mario Pena, I'm sorry I missed your speech.

MR. M. WERNER: Okay. That -- If there's no one else who would like to make a public comment that

will conclude the public comment portion of the -- of the -- of the meeting. The staff will be back at the tables. We'll be happy to answer -- answer any questions that anyone -- anyone may have.

And again, please take a comment card, fill it out, e-mail it, mail it in. We'd like to -- we need -- we need to get the comments as part of the -- the environmental process. So, again, thank you everyone. I know it's -- we appreciate you taking time out of your evening to come -- to come to the meeting, and it -- it's very important that we -- that we get your comments and input on this study. So thank you very much.

* * * * *

COURT REPORTER CERTIFICATION

COUNTY OF BEXAR)

STATE OF TEXAS)

I, Dicie Lee Eytcheson, a Certified Shorthand Reporter in and for the State of Texas, do hereby certify that this transcript is as true and accurate a record as possible, transcribed by me through computer-aided transcription.

And further certify that I am not a relative or employee of any of the parties hereto, nor interested directly or indirectly in the outcome of this session.

WITNESS MY HAND, this the 16 day of August, A.D. 2016.

Dicie Lee Eytcheson

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WORD INDEX

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TEXAS DEPARTMENT OF TRANSPORTATION

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TEXAS-OKLAHOMA PASSENGER RAIL STUDY (TOPRS)

Texas Department of Transportation

7901 IH-35

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AUGUST 10, 2016

5:30 P.M. - 8:00 P.M.

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MARK WERNER: Good evening, everybody. My name is Mark Werner, and I'm the planning section director for TxDOT and the public hearing official officer for tonight's hearing. The purpose of tonight's hearing is to get public comment on the Texas-Oklahoma Passenger Rail Study.

Just to kind of give a little run-through, we've got the format, the overview. We'll talk about the environmental overview, the schedule, and then we'll start the public comment section after the presentation.

So tonight's meeting is more formal than the other meetings we have. This is the public hearing. We will be taking public comments. We won't be responding to comments at the meeting tonight. We'll just be recording your comments with a court reporter, and then the comments will be compiled and responded to in the final EIS document. So that's what we're going to be talking about, the Texas-Oklahoma Passenger Rail Study.

The reason you're here is, of course, to learn more about the project, ask questions and to get your feedback on it, and so that purpose is to get your comments on the study. You can make verbal comments tonight at the end of the meeting. There is also comment cards in the back and you can fill out and put in the box. You can also e-mail them to me. And the comment period is on until

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October 29th at 5:00 p.m.

AUDIENCE MEMBER: August.

MARK WERNER: So these are the way that you can provide your comments, as verbal comments tonight; you can make written comment on the comment cards. And please fill them out. Please make comments. We need public input. It's part of the process, so we need your input on the study.

Let's do a little overview of the project. This is a planning level study. It's an 850-mile corridor from Oklahoma City to Fort Worth [sic]. The study began in 2012 funded by an FRA grant, and in 2013 we had a series of public scoping meetings in order to get the public's input on what they felt that the service should look like. We went through and announced those with those alternatives that were suggested, and then in the winter of 2014 we came out with a list of alternatives that we're going to take and the final EIS that would be evaluated, and those that became at the top is what we're representing tonight.

So during the study we looked at a range of alternative service types. We went and looked at everything from conventional Amtrak at 79 miles an hour, all the way up to high speed at 220 miles an hour. All the alternatives that were evaluated by the same environmental criteria; and, of course, the purpose of the meeting tonight is to

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get comments on the project.

The purpose of the Environmental Impact Study needs a purpose indeed, and the purpose of this study was to enhance the mobility and providing an enhanced passenger rail service as a transportation alternative that was competitive with automobile, bus and air travel.

The need that we're trying to address is to improve existing passenger rail service and other modes of transportation in the corridor. And one thing you're looking at is as population grows and the economy grows, there is going to be an increasing demand and congestion on our existing transportation system, and this is a means to help alleviate that.

There is limited intercity passenger rail service right now, and that's another thing we'd like to see improved. Also, as you increase your vehicular traffic, your air quality is going to decline. And then you get an increase in truck traffic and rail traffic. You've got a safer mode to travel other than the highways. That would be another need that we try to address.

What is a planning level study? This is a high level study that looks at the corridor to determine if passenger rail service is feasible in the corridor, and that's what the purpose of this study is, and then from that point you can go to the project level. So that's what we

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started in this planning level study, to kind of determine does passenger rail service in this corridor make sense; and, if so, what type of passenger rail service. Because of the size and complexity of the study -- of the area, that's another reason to do that, so you're not spending a lot of money on a project level study that doesn't pan out. And so we'll get a Record of Decision on the environmental study.

This is the study area that runs from Oklahoma City down to South Texas. It's 850 miles. We broke the corridor up into three sections because we felt when we started the study that there is going to be enough difference in the demographics and stuff. There may be different services required for different corridors, and that's what we found.

We had the northern section from Oklahoma City down to Dallas/Fort Worth, central from Dallas/Fort Worth to San Antonio, and the southern sections from San Antonio down to the border, which is Laredo and Rio Grande Valley.

These are the types of services that we're looking at, as mentioned earlier. Conventional Amtrak service, again, is 70 to 90 miles an hour. Trips per day in these stations are a little bit closer together. You don't have assigned seating.

And then you look at a higher speed, which are speeds up to 125 miles an hour, more trains per day and more

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reserved type seating. And then true high speed, speeds up to 220 miles an hour, your stations are 50 to 100 miles apart, more reserve type seating like air fare, and then more trips per day too.

On the environmental part, like I say, every alternative was evaluated for environmental criteria. These are the criteria that we looked at, air quality, natural resources, looked at energy, geological issues, also looked at farm and land use, impacts to that, environmental justice impacts, impacts to any historical resources, and construction impacts. Of course, this is a planning level study, so all these were looked at a high level. They weren't looked at the ground project level.

This is the northern section. During the analysis, there is not enough ridership to support high-speed rail in this corridor or higher speed. So this would be a conventional Amtrak type service, basically follows existing Heartland flyer route. The only difference would be down in Fort Worth; we'd make a connection to Dallas on the TRV line. We're looking at four round trips a day on this.

Now, the central section has significant ridership, enough to support true high speed in the corridor. And these are the alternatives that we're recommending moving forward. All the alternatives are

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followed basically the same alignment, build the rail down to San Antonio, the difference being as you get up into the metroplex, how do you serve the metroplex. And there is one -- photograph C4A, which serves Dallas, makes a connection to D/FW and across to Fort worth. B would make a -- go to Arlington and split and serve Fort Worth and Dallas that way. And then C would be a loop that would go up and serve Dallas/Fort Worth and then also the airport. The potential of this is alternate trains possibly. So you can have one train go up to Dallas and next train go to Fort Worth, so you can serve each city equally.

Now, on the southern section, these are the alternatives that we're presenting. During the public scoping period, there is a lot of interest that people thought that there should be service that go down to Monterrey, Mexico. That wasn't part of the scope of our study, but we did some high-level work, and there looks to be sufficient -- there might be sufficient ridership to support high-speed service from San Antonio down to Laredo to Monterrey, Mexico, but there would be more -- more study needs to be involved on that. The other alternative would be for higher speed service that would go down and serve the Rio Grande Valley and could also have connections from -- to Laredo, Corpus Christi. As I mentioned, this is a draft report in EIS.

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We're going now to comments. And these are ways you can submit your comments here. There is information on the web site. We have a copy of the EIS back here. It's only 160 pages. So if you want to read that before you leave, go for it. But then you can also look at it online, on the TxDOT web site. But we encourage you to do that, look at it, and leave your comments.

Here is the schedule that we stated in 2012. There is the scoping meetings. We're now in the formal public comment period on the study, and then we're looking to have all the public comments compiled and submitted to the FRA, which is the lead agency, towards the end of this year, look to have a Record of Decision this year, first part of next year.

That's really our next step is to get your comments tonight. As I said, this is a public hearing. We won't be answering or responding to questions. We're just taking your comments. We have a court reporter here who will record all of the verbal comments. And then also the written comments, please submit those. Those will be combined into the environmental document. They'll be addressed in the document and submitted to the FRA, who will make a final ruling on the study.

So that concludes the presentation portion, and now we'll begin the verbal comment. But before I start

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that, are there any elected officials in the room that would like to come forward and make a statement? No. Okay.

When you come up to the microphone, please state your name and your affiliation. We like to try to limit comments to three minutes. So as I call your name, please come forward. Bruce Ashton. Come to the microphone here and then provide us your comments.

BRUCE ASHTON: Comments will only get better after I leave I'm sure. I'm Bruce Ashton, San Antonio. I'm with the National Association of Railroad Passengers. We have a gate for better, effective rail transportation across the United States, especially here in Texas. We have reached a point where something has to be done. So your plan is wonderful. We recognize that we have a population that is more enthusiastic about having their own private car, listening to their own private radio stations, and to get them out of the cars is going to be a monstrous job. So I leave here with a challenge to how do I convince people that we do need to look at this. We do need to think about less concrete, more rails. I want to tell you I am really fearful about the task that we have before us. My condolences. Congratulations on coming forward with the plan. Thank you.

MARK WERNER: Thank you. Okay. Does anybody else want to come up and make a comment? We have cards in

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the back, so -- okay. Great.

CLARE BARRY: I'm Clare Barry. I'm also on the board of the National Association of Railroad Passengers, and I live here in Austin. And I do think it's a great thing that we're going forward with this study. It's been kind of a long time in the making, and I encourage anyone here who is an advocate for passenger rail and intercity passenger rail in particular to spread the word. I think if we're needing to have the state legislature involved it's going to take everyone who is an advocate for projects like this to make some kind of personal contact with respect with the state legislator and let them know that there are people in Texas -- I really think there are a lot of people in Texas who really think we need passenger rail. So thank you.

MARK WERNER: Thank you. Anybody else? All right. If there is no one else who'd like to make a public comment, we'll be hanging around by the tables if you want to ask more questions. I know we had questions and comments earlier this evening, so please feel free to talk to staff. We'll be happy to answer your questions. Thank you for coming tonight. We appreciate you coming out. I know there a lot of things you could be doing, and we appreciate your interest. So thank you.

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THE STATE OF TEXAS
COUNTY OF BEXAR

I, BARBARA GRIFFIN, a Certified Reporter in and for the State of Texas, do hereby certify that the above and foregoing contain a true and correct transcription of all proceedings, all of which occurred and were reported by me.

WITNESS MY HAND, this the _____ day _____, A.D. 2016.

_____
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get comments on the project.

The purpose of the Environmental Impact Study needs a purpose indeed, and the purpose of this study was to enhance the mobility and providing an enhanced passenger rail service as a transportation alternative that was competitive with automobile, bus and air travel.

The need that we're trying to address is to improve existing passenger rail service and other modes of transportation in the corridor. And one thing you're looking at is as population grows and the economy grows, there is going to be an increasing demand and congestion on our existing transportation system, and this is a means to help alleviate that.

There is limited intercity passenger rail service right now, and that's another thing we'd like to see improved. Also, as you increase your vehicular traffic, your air quality is going to decline. And then you get an increase in truck traffic and rail traffic. You've got a safer mode to travel other than the highways. That would be another need that we try to address.

What is a planning level study? This is a high level study that looks at the corridor to determine if passenger rail service is feasible in the corridor, and that's what the purpose of this study is, and then from that point you can go to the project level. So that's what we

started in this planning level study, to kind of determine does passenger rail service in this corridor make sense; and, if so, what type of passenger rail service. Because of the size and complexity of the study -- of the area, that's another reason to do that, so you're not spending a lot of money on a project level study that doesn't pan out. And so we'll get a Record of Decision on the environmental study.

This is the study area that runs from Oklahoma City down to South Texas. It's 850 miles. We broke the corridor up into three sections because we felt when we started the study that there is going to be enough difference in the demographics and stuff. There may be different services required for different corridors, and that's what we found.

We had the northern section from Oklahoma City down to Dallas/Fort Worth, central from Dallas/Fort Worth to San Antonio, and the southern sections from San Antonio down to the border, which is Laredo and Rio Grande Valley.

These are the types of services that we're looking at, as mentioned earlier. Conventional Amtrak service, again, is 70 to 90 miles an hour. Trips per day in these stations are a little bit closer together. You don't have assigned seating.

And then you look at a higher speed, which are speeds up to 125 miles an hour, more trains per day and more

reserved type seating. And then true high speed, speeds up to 220 miles an hour, your stations are 50 to 100 miles apart, more reserve type seating like air fare, and then more trips per day too.

On the environmental part, like I say, every alternative was evaluated for environmental criteria. These are the criteria that we looked at, air quality, natural resources, looked at energy, geological issues, also looked at farm and land use, impacts to that, environmental justice impacts, impacts to any historical resources, and construction impacts. Of course, this is a planning level study, so all these were looked at a high level. They weren't looked at the ground project level.

This is the northern section. During the analysis, there is not enough ridership to support high-speed rail in this corridor or higher speed. So this would be a conventional Amtrak type service, basically follows existing Heartland flyer route. The only difference would be down in Fort Worth; we'd make a connection to Dallas on the TRV line. We're looking at four round trips a day on this.

Now, the central section has significant ridership, enough to support true high speed in the corridor. And these are the alternatives that we're recommending moving forward. All the alternatives are

followed basically the same alignment, build the rail down to San Antonio, the difference being as you get up into the metroplex, how do you serve the metroplex. And there is one -- photograph C4A, which serves Dallas, makes a connection to D/FW and across to Fort worth. B would make a -- go to Arlington and split and serve Fort Worth and Dallas that way. And then C would be a loop that would go up and serve Dallas/Fort Worth and then also the airport. The potential of this is alternate trains possibly. So you can have one train go up to Dallas and next train go to Fort Worth, so you can serve each city equally.

Now, on the southern section, these are the alternatives that we're presenting. During the public scoping period, there is a lot of interest that people thought that there should be service that go down to Monterrey, Mexico. That wasn't part of the scope of our study, but we did some high-level work, and there looks to be sufficient -- there might be sufficient ridership to support high-speed service from San Antonio down to Laredo to Monterrey, Mexico, but there would be more -- more study needs to be involved on that. The other alternative would be for higher speed service that would go down and serve the Rio Grande Valley and could also have connections from -- to Laredo, Corpus Christi. As I mentioned, this is a draft report in EIS.

We're going now to comments. And these are ways you can submit your comments here. There is information on the web site. We have a copy of the EIS back here. It's only 160 pages. So if you want to read that before you leave, go for it. But then you can also look at it online, on the TxDOT web site. But we encourage you to do that, look at it, and leave your comments.

Here is the schedule that we stated in 2012. There is the scoping meetings. We're now in the formal public comment period on the study, and then we're looking to have all the public comments compiled and submitted to the FRA, which is the lead agency, towards the end of this year, look to have a Record of Decision this year, first part of next year.

That's really our next step is to get your comments tonight. As I said, this is a public hearing. We won't be answering or responding to questions. We're just taking your comments. We have a court reporter here who will record all of the verbal comments. And then also the written comments, please submit those. Those will be combined into the environmental document. They'll be addressed in the document and submitted to the FRA, who will make a final ruling on the study.

So that concludes the presentation portion, and now we'll begin the verbal comment. But before I start

that, are there any elected officials in the room that would like to come forward and make a statement? No. Okay.

When you come up to the microphone, please state your name and your affiliation. We like to try to limit comments to three minutes. So as I call your name, please come forward. Bruce Ashton. Come to the microphone here and then provide us your comments.

BRUCE ASHTON: Comments will only get better after I leave I'm sure. I'm Bruce Ashton, San Antonio. I'm with the National Association of Railroad Passengers. We have a gate for better, effective rail transportation across the United States, especially here in Texas. We have reached a point where something has to be done. So your plan is wonderful. We recognize that we have a population that is more enthusiastic about having their own private car, listening to their own private radio stations, and to get them out of the cars is going to be a monstrous job. So I leave here with a challenge to how do I convince people that we do need to look at this. We do need to think about less concrete, more rails. I want to tell you I am really fearful about the task that we have before us. My condolences. Congratulations on coming forward with the plan. Thank you.

MARK WERNER: Thank you. Okay. Does anybody else want to come up and make a comment? We have cards in

the back, so -- okay. Great.

CLARE BARRY: I'm Clare Barry. I'm also on the board of the National Association of Railroad Passengers, and I live here in Austin. And I do think it's a great thing that we're going forward with this study. It's been kind of a long time in the making, and I encourage anyone here who is an advocate for passenger rail and intercity passenger rail in particular to spread the word. I think if we're needing to have the state legislature involved it's going to take everyone who is an advocate for projects like this to make some kind of personal contact with respect with the state legislator and let them know that there are people in Texas -- I really think there are a lot of people in Texas who really think we need passenger rail. So thank you.

MARK WERNER: Thank you. Anybody else? All right. If there is no one else who'd like to make a public comment, we'll be hanging around by the tables if you want to ask more questions. I know we had questions and comments earlier this evening, so please feel free to talk to staff. We'll be happy to answer your questions. Thank you for coming tonight. We appreciate you coming out. I know there a lot of things you could be doing, and we appreciate your interest. So thank you.

* * * * * *

THE STATE OF TEXAS

COUNTY OF BEXAR

I, BARBARA GRIFFIN, a Certified Reporter in and for the State of Texas, do hereby certify that the above and foregoing contain a true and correct transcription of all proceedings, all of which occurred and were reported by me.

WITNESS MY HAND, this the _____ day _____, A.D. 2016.

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Page 1

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TEXAS-OKLAHOMA PASSENGER RAIL STUDY

PUBLIC HEARING

AUGUST 11, 2016

****

BE IT REMEMBERED that the above-styled matter came on for hearing on the 11th day of August, 2016 at 6:00 p.m., at the office of the North Central Texas Council of Governments, located at 616 Six Flags Drive, Arlington, Texas. The following proceedings were transcribed by Shannon N. Head, Certified Shorthand Reporter in and for the State of Texas.

Page 2

A P P E A R A N C E S

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PUBLIC COMMENT SPEAKERS:

Mr. Dan Lamers, North Central Texas Council of Governments

Ms. Sandy Wesch, North Central Texas Council of Governments

Ms. Jessica Attas, Greater Waco Chamber of Commerce

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I N D E X

Page 4

P R O C E E D I N G S

MR. MARK WERNER: Ladies and gentlemen, it's 6:00 now. We would like to start the presentation of our hearing, so if everyone could please take a seat.

Okay. Good evening. My name is Mark Werner. I'm the Rail Planning Director and Public Hearing Officer for tonight's public hearing. The purpose of tonight's hearing is to take public comments on the Texas Oklahoma or TOPRS, Environmental Impact Statement study.

Agenda for tonight's meeting: We'll go over the format. You'll get a little overview, talk about the Environmental aspects, the schedule, and then the public comments. So tonight is a formal public hearing.

It's a little different from the other meetings we've had, the scoping meetings. During the public comment period we won't be responding or answering any questions. We'll just be taking your comments and recording those as public record. And those go to the environmental documents. The presentation will kind of describe a little bit about the TOPRS project, and we'll go from there.

So why you're here tonight is, of course, to learn more about the project, review the purpose and

Page 5

needs, and then provide comments to us on the study.

There are several ways that you can submit comments. Of course, tonight we'll be taking your verbal comments. We have a court reporter who will record all your comments. You can also make written comments. We have comment cards at the front desk. We also have speaker cards. If you would like to speak, please fill one of those out. You can also fill out the cards. You can turn them in tonight or you can e-mail them to me at the address on the screen or mail them to the address on the back of the comment card. All comments are due by 5 p.m. on August 29th. That's the end of the comment period.

Now giving a little overview of the project: This is a planning level study to determine the feasibility of passenger rail service in the corridor, 850-mile corridor, from Oklahoma City down to South Texas. The study began in October of 2012. In the fall of 2013 we went to the corridor, had a round of scoping meetings, took public comments on what they felt the service should look like.

And in 2014, we took those comments, evaluated the alternatives, and presented the alternative we would be moving forward into the final environmental documents. During the study, we looked at

Page 6

a range of different service types in the corridor on everything from conventional Amtrak service, all the way up to fully electric high-speed services at 220 miles an hour.

All the alternatives we're presenting tonight were evaluated against a set of environmental criteria. And we'll talk a little bit more later. And then this is the final review process for the study to get public input on the project.

Study Purpose and Need: This is something that every Environmental Impact Statement has. And the purpose of this study is to enhance intercity mobility by providing enhanced passenger rail service as a transportational alternative that is competitive with automobile, bus, and/or air travel.

And the need is to address inadequacies in existing passenger rail service or other modes of transportation to meet the current and future mobility needs in the EIS Program corridor. Such things that we'll address will be, you know, increases in population needs, economic increases, the greater and greater demands on the travel network, reducing -- reliability of the transit network.

We're also looking at -- there's limited intercity passenger rail service in the corridor in some

Page 7

sections. And in other sections, there's none. So ways to improve that, and improve interconnectivity in the corridor. Also, with increased travel demands, you're also -- you increase air pollution. Higher air qualities, ways to address -- address that.

And then also the growth in truck and freight traffic, safety issue on the corridor, to provide a means to travel to -- a safer means to travel than driving on congested roads.

Okay. What is a Planning Level Environmental Study? This is something that the Federal law allows us to look at a large group of projects that do a high-level evaluation to determine which of those projects warrant further study.

And this is the first step in the process of this corridor. And because of the size and complexity of this corridor, we went with this Planning Level Study to determine what type of passenger rail is feasible in the corridor, if any at all. And to come up with some alternatives. At the completion of this process, we'll get a Record Decision that will allow us to move further on any projects that are determined viable to move forward.

This is the Study Area. 850-mile corridor from Oklahoma City down to South Texas. When

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we started this study, we realized that there could be some differences in the type of service that would fit in the corridor. So we broke the corridor up into three sections. A Northern Section from Oklahoma City down to Dallas/Fort Worth, a Central Section from Dallas/Fort Worth down to San Antonio, and then the Southern Section from San Antonio down to South Texas.

These are the service types that we looked at again. We looked at conventional Amtrak service, speeds around 79 miles an hour. Your stations are, you know, 15 to 60 miles apart. You're looking at, you know, a few trains a day, unreserved seating. This would be using existing freight railroad -- or freight tracks.

Then you go to higher speed, up to 125 miles an hour. This could be a -- use some freight tracks, but then also have some dedicated tracks. You have reserved seating, a business class-type service. And then you go to full true high-speed, 220 miles an hour, fully dedicated tracks. Your stations are 50 to 100 miles apart. Reserved seating, you know, business class, and food service, and that type of thing.

Okay. In the Environmental -- all the alternatives that we're presenting tonight were evaluated by these -- with these criteria right here.

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We looked at, you know, impacts to air quality, water quality, endangered species, land use, environmental justice issues, constructability. But all these, every alternative was evaluated against these criteria to see what the impacts were by the service.

Okay. This is the Northern Section. The study determined that there was insufficient ridership to support higher speed or high-speed service in this section. So, in this section we're recommending a conventional Amtrak-type service, using the -- it would be the existing Heartland Flyer route from Oklahoma City down to Fort Worth and reconnect across Dallas on the TRE line. We're looking at about four round trips a day for this service.

The Central Section has three alternatives that we're recommending. These are all true high speed. There's enough ridership to support true high-speed service in this section. All these alternatives use basically the same alignment from Hillsboro, south down to San Antonio.

The difference is as you get up into the Metroplex, how you serve the Metroplex. C4A is going to Dallas across to DFW and then to Fort Worth. B, would be a connection in Arlington that would split and then go to Dallas and Fort Worth. And then C is a loop that

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could go -- you could go up to Dallas/Fort Worth. And also a possibility that you could run trains bi-directly the other way to Fort Worth, and go that way first, as well.

The Southern Section. These are the alternatives that we presented to move forward. When we had our scoping meetings, there was a great deal of interest expressed in having the service connect down to Monterrey, Mexico. So we looked at that. We didn't -- Monterrey wasn't part of the study, but we were able to get some preliminary information that shows that there could be the possibility for enough ridership to have true high speed from San Antonio down to Monterrey, Mexico.

The other section is S4. It's a higher speed service from San Antonio down to Rio Grand Valley. It also has connections to Laredo and to Fort Worth -- I mean Corpus Christi.

Okay. Now the Environmental Impact Statement, we have a copy available at tonight's meeting. It's 860 pages. I doubt if anybody is going to want to read that tonight, but it's available on our website. There is also available at COG, NCTCOG has a copy here in the office. We have a copy in our office in Austin. And there's a copy in the Laredo office.

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And then, of course, you can look at it online.

Here is our study schedule. You can see we're now in the public hearing phase of the study. The next step would be to submit the final EIS Record Decision to the FRA, which is the lead Federal agency. We're hoping that we could have a Record Decision by the end of the year, first part of 2017.

But the next step is to get the comments from the public comment period. And we'll take the comments from tonight's hearing and the other public hearings that we had. Those will be incorporated into the environmental documents. We'll address the comments in that document. It will become part of the final document that will be submitted to the FRA to get our Record Decision.

So here is how you submit your comments. Verbal comments tonight will be -- the speaker will sit at the desk over here. If anybody would like to speak, we have comment cards. Please fill those out. We would like to get your comments. Also, if you prefer not to make verbal comments, please fill out comment cards and drop them off in the box or e-mail them to me or mail them in at the address on the screen.

Okay. That concludes our presentation portion of the study. I would like to acknowledge a few

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of our elected officials tonight. We have Tarrant County Judge, Glen Whitley. I think he may have already left. Okay. And then we have a counsel member from the City of Arlington, Kathryn Wilemon is present with us. Would you like to make a comment?

MS. KATHRYN WILEMON: No, that's fine.

MR. MARK WERNER: Also, we have a State Representative, Chris Turner, here tonight.

And also, representative for Tarrant County Commissioner, Cary Ficus. Would you like to make a comment? Or --

MS. CARY FICUS: No, I'm fine.

MR. MARK WERNER: All right.

Okay. Now we're going to begin the public comment portion. We have the microphone set up over here. Please state your name and your affiliation, if any. Provide your comments. We would like to limit comments to 3 minutes to allow everybody a chance to comment. So as you're called, your name, please come forward and make your comments. Dan Lamers.

MR. DAN LAMERS: Good evening. Mr. Werner, thank you for having your public meeting here in Arlington and giving us an opportunity.

My name is Dan Lamers. I'm a Senior Program Manager for the North Central Texas Council of

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Governments. We are the MPO for the Dallas/Fort Worth area. The Regional Transportation Council is the independent policy body for the MPO in the Dallas/Fort Worth area.

I'm going to read a statement of support for the concept of high-speed rail, with some additional comments. And I have already put a copy of my statement in the box, with some additional comments as well. So, this is on behalf of the Regional Transportation Counsel and the North Central Texas Council of Governments.

High speed rail service is a vital transportation concept that will help sustain local, regional, and State, and National economies. In the North Texas Region this transportation system will serve as principal route to and from the Dallas/Fort Worth Region to points northward to Oklahoma and southward to Austin, San Antonio and beyond.

The Regional Transportation Council and the North Central Texas Council of Governments support implementing a high-speed passenger rail service within and approaching the Dallas/Fort Worth region. Connectivity to other high-speed passenger rail services within the Dallas/Fort Worth region will be vital to providing a high-speed passenger rail network. Additionally, connectivity to other transit modes within

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the region is critical to the success of a high-speed rail system.

The Regional Transportation Council and the North Central Texas Council of Governments encourage the formulation of a recommended alternative to be flexible regarding connection within the Dallas/Fort Worth Region to the other high-speed rail corridors that are under study.

The preferred alignment alternatives recommended in this study are not consistent with the adopted Mobility 2040, the Metropolitan Transportation Plan for the North Central Texas Region, which was adopted by the RTC in March of this year. Alternative C4 and C4B are not consistent with the plan at all, while alternative C4C is partially consistent with the plan.

In addition, the preferred alignment alternatives are not consistent with the RTC's adopted three-station concept and one-seat ride policy that they have adopted as part of their transportation plan.

That concludes my comments. And as I've said, there are other comments and a transcript of this in the box.

MR. MARK WERNER: Okay. Thank you.

Okay. Next we have Sandy Wesch.

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MS. SANDY WESCH: Good afternoon. My name is Sandy Wesch, and I'm a project engineer at the North Central Texas Council of Governments. And I would like to expand upon the comments that Dan just made. In reviewing the Draft Environmental Impact Statement, documents and the Tier One Study Process does not accurately recognize the interdependency and the need for coordinating with other high-speed rail environmental documents that are currently being developed.

In fact, it appears that the document may be in conflict with the planning and environmental efforts under way for the Dallas-Fort-Worth high-speed rail core service, that the service that would be run between Dallas and Fort Worth. The TOPRS, EIS seems to consider Dallas and Fort Worth as separate regions and discounts the dynamics within our region. Because Dallas/Fort Worth is really serving as the crossroads TOPRS and the Houston to Dallas high-speed rail line, the North Central Texas Council of Government is in a unique position.

We serve as the MPO. Federal requirements necessitate that the agency coordinate the region's transportation systems development to determine the best way to provide system connectivity. The Regional

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Transportation Council supports high-speed rail as Dan has mentioned. The RTC has established policies within the Dallas/Fort Worth area to help guide the future high-speed rail systems operations. This includes the interoperability to provide that one-seat ride to, from, and within the Dallas/Fort Worth region to allow for and encourage both inter- and intra-regional high-speed rail connectivity.

Additionally, the recent US Department of Transportation request for proposals for high-speed rail development identified Dallas/Fort Worth in connection to San Antonio, Oklahoma City, and Little Rock as a potential single corridor, not recognizing the interconnectivity of all of these corridors as well as the privately -- the development of the private segment from Houston to Dallas seems to be a flaw. It appears that the approach being used for high-speed rail is not conducive to the beginnings of a high-speed -- a national high-speed rail system. Thank you.

MR. MARK WERNER: Thank you.

Okay. The next speaker is Jessica Attas.

MS. JESSICA ATTAS: Good afternoon. Nice to see you again. My name is Jessica Attas. I'm here on behalf of the Greater Waco Chamber of Commerce in Waco, Texas, so we're there on that central route. We

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represent about 16,000 member business -- excuse me -- 1,600 member businesses and 70,000 jobs in the greater Waco area that are both rural and urban alike.

Our Chamber has really a visionary agenda for economic growth and quality of life. And we're really concerned with promoting policies that are conducive to help us diversify and grow our economy to help improve quality of life.

We recognize that Texas is the 11th largest economy in the world. And that we believe that a robust and multilevel transportation infrastructure system will be necessary to help us continue to move people and goods and services for a 21st century economy.

Texas leads the nation in population growth, as probably everyone in this room knows. I believe that we really must act now to expand and to improve our existing infrastructure. We must be forward thinking and strategic as we plan for a Texas that has changing needs -- for the changing needs of our great state, must recognize the realities of demographic changes to come and respond accordingly.

Business as usual is an unacceptable response because the changes to come are not usual. We encourage TxDOT and the Commissioners to seek Federal funding for the next phase of study. And, in the

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future, we look forward to working together for a station in Waco that would increase connectivity and improve quality of life for those in our region. Thank you for your work today, and we look forward to seeing what's to come.

MR. MARK WERNER: Thank you. Okay. There's plenty of time. Would anybody else like to make a public comment?

Okay. Well, that concludes the -- our public hearing for tonight. Thank you all for coming. And I know there are other things you could be doing this evening. We appreciate you coming out. Staff will be hanging around to answer any questions you may have.

Thank you for coming.

(Proceedings recessed at 6:19.)

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REPORTER'S CERTIFICATE

STATE OF TEXAS *
COUNTY OF TARRANT *

This is to certify that I, Shannon N. Head, Certified Shorthand Reporter, in and for the State of Texas, certify that the above and foregoing Public Hearing was reported stenographically by me at the time and place indicated, and that the transcript is a true record of the proceedings.

I further certify that I am neither counsel for, related to, nor employed by any of the parties in the action in which this proceeding was taken, and further I am not financially or otherwise interested in the outcome of the action.

Given under my hand of office on this the 22nd day of August, 2016.

_____

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In the Matter Of:

TEXAS-OKLAHOMA PASSENGER RAIL STUDY

PUBLIC HEARING

August 11, 2016

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TEXAS-OKLAHOMA PASSENGER RAIL STUDY

PUBLIC HEARING

AUGUST 11, 2016

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PUBLIC COMMENT SPEAKERS:

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I N D E X

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we started this study, we realized that there could be some differences in the type of service that would fit in the corridor. So we broke the corridor up into three sections. A Northern Section from Oklahoma City down to Dallas/Fort Worth, a Central Section from Dallas/Fort Worth down to San Antonio, and then the Southern Section from San Antonio down to South Texas.

These are the service types that we looked at again. We looked at conventional Amtrak service, speeds around 79 miles an hour. Your stations are, you know, 15 to 60 miles apart. You're looking at, you know, a few trains a day, unreserved seating. This would be using existing freight railroad -- or freight tracks.

Then you go to higher speed, up to 125 miles an hour. This could be a -- use some freight tracks, but then also have some dedicated tracks. You have reserved seating, a business class-type service. And then you go to full true high-speed, 220 miles an hour, fully dedicated tracks. Your stations are 50 to 100 miles apart. Reserved seating, you know, business class, and food service, and that type of thing.

Okay. In the Environmental -- all the alternatives that we're presenting tonight were evaluated by these -- with these criteria right here.

We looked at, you know, impacts to air quality, water quality, endangered species, land use, environmental justice issues, constructability. But all these, every alternative was evaluated against these criteria to see what the impacts were by the service.

Okay. This is the Northern Section. The study determined that there was insufficient ridership to support higher speed or high-speed service in this section. So, in this section we're recommending a conventional Amtrak-type service, using the -- it would be the existing Heartland Flyer route from Oklahoma City down to Fort Worth and reconnect across Dallas on the TRE line. We're looking at about four round trips a day for this service.

The Central Section has three alternatives that we're recommending. These are all true high speed. There's enough ridership to support true high-speed service in this section. All these alternatives use basically the same alignment from Hillsboro, south down to San Antonio.

The difference is as you get up into the Metroplex, how you serve the Metroplex. C4A is going to Dallas across to DFW and then to Fort Worth. B, would be a connection in Arlington that would split and then go to Dallas and Fort Worth. And then C is a loop that

could go -- you could go up to Dallas/Fort Worth. And also a possibility that you could run trains bi-directly the other way to Fort Worth, and go that way first, as well.

The Southern Section. These are the alternatives that we presented to move forward. When we had our scoping meetings, there was a great deal of interest expressed in having the service connect down to Monterrey, Mexico. So we looked at that. We didn't -- Monterrey wasn't part of the study, but we were able to get some preliminary information that shows that there could be the possibility for enough ridership to have true high speed from San Antonio down to Monterrey, Mexico.

The other section is S4. It's a higher speed service from San Antonio down to Rio Grand Valley. It also has connections to Laredo and to Fort Worth -- I mean Corpus Christi.

Okay. Now the Environmental Impact Statement, we have a copy available at tonight's meeting. It's 860 pages. I doubt if anybody is going to want to read that tonight, but it's available on our website. There is also available at COG, NCTCOG has a copy here in the office. We have a copy in our office in Austin. And there's a copy in the Laredo office.

And then, of course, you can look at it online.

Here is our study schedule. You can see we're now in the public hearing phase of the study. The next step would be to submit the final EIS Record Decision to the FRA, which is the lead Federal agency. We're hoping that we could have a Record Decision by the end of the year, first part of 2017.

But the next step is to get the comments from the public comment period. And we'll take the comments from tonight's hearing and the other public hearings that we had. Those will be incorporated into the environmental documents. We'll address the comments in that document. It will become part of the final document that will be submitted to the FRA to get our Record Decision.

So here is how you submit your comments. Verbal comments tonight will be -- the speaker will sit at the desk over here. If anybody would like to speak, we have comment cards. Please fill those out. We would like to get your comments. Also, if you prefer not to make verbal comments, please fill out comment cards and drop them off in the box or e-mail them to me or mail them in at the address on the screen.

Okay. That concludes our presentation portion of the study. I would like to acknowledge a few

of our elected officials tonight. We have Tarrant County Judge, Glen Whitley. I think he may have already left. Okay. And then we have a counsel member from the City of Arlington, Kathryn Wilemon is present with us. Would you like to make a comment?

MS. KATHRYN WILEMON: No, that's fine.

MR. MARK WERNER: Also, we have a State Representative, Chris Turner, here tonight.

And also, representative for Tarrant County Commissioner, Cary Ficus. Would you like to make a comment? Or --

MS. CARY FICUS: No, I'm fine.

MR. MARK WERNER: All right.

Okay. Now we're going to begin the public comment portion. We have the microphone set up over here. Please state your name and your affiliation, if any. Provide your comments. We would like to limit comments to 3 minutes to allow everybody a chance to comment. So as you're called, your name, please come forward and make your comments. Dan Lamers.

MR. DAN LAMERS: Good evening. Mr. Werner, thank you for having your public meeting here in Arlington and giving us an opportunity.

My name is Dan Lamers. I'm a Senior Program Manager for the North Central Texas Council of

Governments. We are the MPO for the Dallas/Fort Worth area. The Regional Transportation Council is the independent policy body for the MPO in the Dallas/Fort Worth area.

I'm going to read a statement of support for the concept of high-speed rail, with some additional comments. And I have already put a copy of my statement in the box, with some additional comments as well. So, this is on behalf of the Regional Transportation Counsel and the North Central Texas Council of Governments.

High speed rail service is a vital transportation concept that will help sustain local, regional, and State, and National economies. In the North Texas Region this transportation system will serve as principal route to and from the Dallas/Fort Worth Region to points northward to Oklahoma and southward to Austin, San Antonio and beyond.

The Regional Transportation Council and the North Central Texas Council of Governments support implementing a high-speed passenger rail service within and approaching the Dallas/Fort Worth region. Connectivity to other high-speed passenger rail services within the Dallas/Fort Worth region will be vital to providing a high-speed passenger rail network. Additionally, connectivity to other transit modes within

the region is critical to the success of a high-speed rail system.

The Regional Transportation Council and the North Central Texas Council of Governments encourage the formulation of a recommended alternative to be flexible regarding connection within the Dallas/Fort Worth Region to the other high-speed rail corridors that are under study.

The preferred alignment alternatives recommended in this study are not consistent with the adopted Mobility 2040, the Metropolitan Transportation Plan for the North Central Texas Region, which was adopted by the RTC in March of this year. Alternative C4 and C4B are not consistent with the plan at all, while alternative C4C is partially consistent with the plan.

In addition, the preferred alignment alternatives are not consistent with the RTC's adopted three-station concept and one-seat ride policy that they have adopted as part of their transportation plan.

That concludes my comments. And as I've said, there are other comments and a transcript of this in the box.

MR. MARK WERNER: Okay. Thank you.

Okay. Next we have Sandy Wesch.

MS. SANDY WESCH: Good afternoon. My name is Sandy Wesch, and I'm a project engineer at the North Central Texas Council of Governments. And I would like to expand upon the comments that Dan just made. In reviewing the Draft Environmental Impact Statement, documents and the Tier One Study Process does not accurately recognize the interdependency and the need for coordinating with other high-speed rail environmental documents that are currently being developed.

In fact, it appears that the document may be in conflict with the planning and environmental efforts under way for the Dallas-Fort-Worth high-speed rail core service, that the service that would be run between Dallas and Fort Worth. The TOPRS, EIS seems to consider Dallas and Fort Worth as separate regions and discounts the dynamics within our region. Because Dallas/Fort Worth is really serving as the crossroads TOPRS and the Houston to Dallas high-speed rail line, the North Central Texas Council of Government is in a unique position.

We serve as the MPO. Federal requirements necessitate that the agency coordinate the region's transportation systems development to determine the best way to provide system connectivity. The Regional

Transportation Council supports high-speed rail as Dan has mentioned. The RTC has established policies within the Dallas/Fort Worth area to help guide the future high-speed rail systems operations. This includes the interoperability to provide that one-seat ride to, from, and within the Dallas/Fort Worth region to allow for and encourage both inter- and intra-regional high-speed rail connectivity.

Additionally, the recent US Department of Transportation request for proposals for high-speed rail development identified Dallas/Fort Worth in connection to San Antonio, Oklahoma City, and Little Rock as a potential single corridor, not recognizing the interconnectivity of all of these corridors as well as the privately -- the development of the private segment from Houston to Dallas seems to be a flaw. It appears that the approach being used for high-speed rail is not conducive to the beginnings of a high-speed -- a national high-speed rail system. Thank you.

MR. MARK WERNER: Thank you.

Okay. The next speaker is Jessica Attas.

MS. JESSICA ATTAS: Good afternoon. Nice to see you again. My name is Jessica Attas. I'm here on behalf of the Greater Waco Chamber of Commerce in Waco, Texas, so we're there on that central route. We

represent about 16,000 member business -- excuse me -- 1,600 member businesses and 70,000 jobs in the greater Waco area that are both rural and urban alike.

Our Chamber has really a visionary agenda for economic growth and quality of life. And we're really concerned with promoting policies that are conducive to help us diversify and grow our economy to help improve quality of life.

We recognize that Texas is the 11th largest economy in the world. And that we believe that a robust and multilevel transportation infrastructure system will be necessary to help us continue to move people and goods and services for a 21st century economy.

Texas leads the nation in population growth, as probably everyone in this room knows. I believe that we really must act now to expand and to improve our existing infrastructure. We must be forward thinking and strategic as we plan for a Texas that has changing needs -- for the changing needs of our great state, must recognize the realities of demographic changes to come and respond accordingly.

Business as usual is an unacceptable response because the changes to come are not usual. We encourage TxDOT and the Commissioners to seek Federal funding for the next phase of study. And, in the

future, we look forward to working together for a station in Waco that would increase connectivity and improve quality of life for those in our region. Thank you for your work today, and we look forward to seeing what's to come.

MR. MARK WERNER: Thank you. Okay. There's plenty of time. Would anybody else like to make a public comment?

Okay. Well, that concludes the -- our public hearing for tonight. Thank you all for coming. And I know there are other things you could be doing this evening. We appreciate you coming out. Staff will be hanging around to answer any questions you may have.

Thank you for coming.

(Proceedings recessed at 6:19.)

REPORTER'S CERTIFICATE

STATE OF TEXAS *

COUNTY OF TARRANT *

This is to certify that I, Shannon N. Head, Certified Shorthand Reporter, in and for the State of Texas, certify that the above and foregoing Public Hearing was reported stenographically by me at the time and place indicated, and that the transcript is a true record of the proceedings.

I further certify that I am neither counsel for, related to, nor employed by any of the parties in the action in which this proceeding was taken, and further I am not financially or otherwise interested in the outcome of the action.

Given under my hand of office on this the 22nd day of August, 2016.

_____

Shannon N. Head, CSR
Texas CSR No. 8132
Expiration Date: 12/31/17
Carrifee Reporting
Firm Registration No. 331
719 West Front Street, Suite 209
Tyler, Texas 75702
903-596-7714

T

Appendix F
Copy of All Comments Received During Comment Period

Submittal 0100 (Jon-Carlo Luera, July 22, 2016)

Hausknecht, Brian/CRP

From: Mark Werner <Mark.Werner@txdot.gov>
Sent: Friday, July 22, 2016 10:54 AM
To: Hausknecht, Brian/CRP; melissa.hatcher@dot.gov
Cc: Melissa Neeley
Subject: FW: TXOK Passenger Rail [EXTERNAL]

fyi

From: [redacted] **On Behalf Of** Jon-Carlo Luera
Sent: Thursday, July 21, 2016 2:20 PM
To: Mark Werner
Subject: TXOK Passenger Rail

To Whom It May Concern,

If the land of fellow Texans is taken, then it better be for a high speed bullet train that is on one continuous rail. We want optimal benefit, especially if sacrifices are being made by citizens. No partial, half-efficient remedies will be acceptable to us registered voters. Thank you. **0100-01**

Regards,

J. Luera
Bexar County TX

Submittal 0101 (Jannine Farnum July 29, 2016)

Hausknecht, Brian/CRP

From: Mark Werner <Mark.Werner@txdot.gov>
Sent: Monday, August 01, 2016 2:29 PM
To: [redacted]
Subject: RE: TxDOT Internet E-Mail [EXTERNAL]

Ms. Farnum,

Thank you for your support. You can comment on the project on the project website below;

http://secure-web.cisco.com/1CDGzMPlD_x4ImWNZdoCEhefugAeAO7mb7ZvdQk3CPk0nY0ZsFQ-L39Rzhwh2thWt1JYfbce2emSaSJKruafBFFzQ9OW7hpDeNj2se4CiJ_084zzlvBHf3HRZdsy469HSUXRvx7q3oBTIUMzxapVCbI3BNuqoLLAUZcJHAPXB462t8EykUFC3HJzxvfhNPdVT3PoqRzzecThdgoxzkF8gvKEydK1e4tHeDCHFbsXE2VNIrMQfHRqhVxjfxsOgkguYZcbrTa6YrkflYPvf4Zyw-tRh_fs2OqdHPiYCxLiU14VirBaZkb9w8D8T73Ic_bf8ZoUVHvJpGML9dUyqs-Z-aHHA59wJAIeIpnn83NLQABV2CRs8CLkmP-AkyOMu79QHrvzNOfb8b6OQacWfrV3PsrRLvSZbKrCLwX3kp7u1_OVMpsK-XsDIeYC5bdC2FHDAetQW3jWleKtve8M-0mjnOUHA4DTYmw0m3iHEolaeL3M/http%3A%2F%2Fwww.txdot.gov%2Finside-txdot%2Fprojects%2Fstudies%2Fstatewide%2Ftexas-oklahoma-rail.html

Thank you,
Mark Werner, P.E.
Rail Planning Section Director
Rail Division
Texas Department of Transportation
125 E. 11th Street
Austin, TX 78701-2483
o:512-486-5137
c:512-968-0734
Mark.werner@txdot.gov

-----Original Message-----
From: [redacted] [mailto:[redacted]]
Sent: Friday, July 29, 2016 11:51 AM
To: Mark Werner
Subject: TxDOT Internet E-Mail

Name: Ms. Jannine Farnum<[redacted]> Requested Contact Method: Email

Reason for Contact: Customer Service
Complaint: No

Comment: I can't make the open house but I would like to know if there is a way to show support for a project that would connect DFW, ATX, SA and Houston? I realize there is some rail currently however they aren't favorable options considering it takes 6+ hours to get from dallas to austin by train. **0101-01**

Texas-Oklahoma Passenger Rail Study

Comment Form

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Submittal 0102 (Lizbeth Camarillo August 9, 2016)

Do you agree with the recommendations?

Northern section

☑ Yes ☐ No (what would you change and why?) ☐ No opinion

Central section

☑ Yes ☐ No (what would you change and why?) ☐ No opinion

Southern section

☑ Yes ☐ No (what would you change and why?) ☐ No opinion

What can TxDOT look at as a part of the study in the future?

Where in Southern Texas will the rail be located exactly? 0103-01

Will our taxes be raised in order for this project to be fufilled? 0103-02

Name: Lizbeth Camarillo

Address (optional): **ZIP code:** 78045

Email (optional): Phone (optional):

(Texas Transportation Code, §201.811(a)(5)): check each of the following boxes that apply to you:
☐ I am employed by TxDOT ☐ I do business with TxDOT ☑ I could benefit monetarily from the project/item I'm commenting on

in cooperation with Oklahoma DOT
Texas Department of Transportation

TEXAS OKLAHOMA PASSENGER RAIL STUDY

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Submittal 0103 (Andrew Carraveo August 9, 2016)

Do you agree with the recommendations?

Northern section

☐ Yes ☐ No (what would you change and why?) ☑ No opinion

Central section

☐ Yes ☐ No (what would you change and why?) ☑ No opinion

Southern section

☑ Yes ☐ No (what would you change and why?) ☐ No opinion

Closer access to Laredo in regards to Route Choice 1. 0103-01
Thinking of Tarragona, Spain where high speed rail is 20 mins out of town.

What can TxDOT look at as a part of the study in the future?

Name: ANDREW L. CARRAVEO

Address (optional): **ZIP code:** 78041

Email (optional): [redacted] Phone (optional):

(Texas Transportation Code, §201.811(a)(5)): check each of the following boxes that apply to you:
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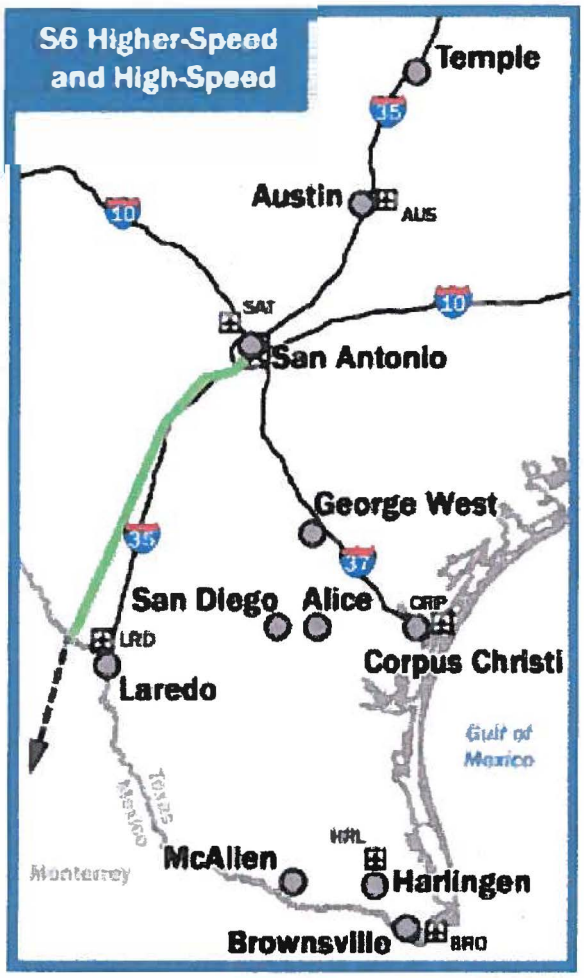
TEXAS OKLAHOMA PASSENGER RAIL STUDY



--Webb County supports the designation of Laredo as a station location, as suggested on Page 2-27, and as included in Section 2.3.4 Station Cities, Table 2-9, Page 2-28. 0104-01

--Webb County wishes to emphasize that route S6 (San Antonio direct to Laredo-Colombia-Solidarity Bridge) is approximately one-third the length of route S4 (San Antonio to Alice, San Diego, Laredo). The direct path of S6, with high-speed rail service, has the greatest impact on reduced travel times. It also relieves vehicle traffic congestion and vehicle emissions and has less impact on overall air quality. 0104-02

--Webb County should NOT support the selection of Alternative Route S4, which does not involve high-speed rail service or a direct route from the IH-35 Corridor at San Antonio to Laredo/Webb County, and eliminates the possibility of high-speed rail service from Laredo and San Antonio to Monterrey. 0104-03

--The Southern end of the IH-35 passenger rail corridor MUST be Laredo and not some other of the cities in the Rio Grande Valley.

--For overall speed and type of service, Webb County should support and endorse the EIS selection of high-speed rail service characteristics as described in Section 2.3.1.3 on Page 2-19 of the Draft EIS with 12 to 24 trains per day in each direction from Monterrey to Laredo to San Antonio. 0104-04

--Webb County supports the position of the FRA and TxDOT and strongly endorses the statement on Page 2-20 describing an extension of Alternative S6 from Laredo to Monterrey and states "the FRA and TxDOT are coordinating with Mexico" on this part of the route. Webb County should encourage the continuing conversation between FRA, TxDOT and Mexico, on a regular, scheduled basis, to include local, state and federal elected 0104-05

officials.

--Webb County strongly supports the Draft EIS statement on Page 2-27 which states that Alternative S6 connection to Monterrey, Mexico is recommended "because three-fourths of potential ridership would occur only with the connection to Monterrey." 0104-06

--Webb County, from a population and projected area growth position, can justify substantial high-speed rail ridership from Laredo to San Antonio, with or without extending the line to Monterrey. Combined Laredo/Webb County and Nuevo Laredo population of over 636,000 in 2013 is substantial, and 0104-07

increasing. Laredo is the 10th most populated city in Texas, is one of the ten fastest growing metro areas in the U.S., and is projected to double in 30 years. The population of the Border area of Texas is growing at twice the rate of Texas as a whole. Mr. Galo, I hope these policy points will assist you at the Aug. 9 hearing, and in sending Webb County comments to TxDOT's Mark Werner by Aug. 28.

--John Cranfill

Aug. 5, 2016

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Submittal 0105 (Robert Eads, August 9, 2016)

Do you agree with the recommendations?

Northern section

☑ Yes ☐ No (what would you change and why?) ☐No opinion

Central section

☑ Yes ☐ No (what would you change and why?) ☐No opinion

Southern section

☒ Yes ☐ No (what would you change and why?) ☐No opinion

I support the high-speed rail system terminating in Laredo. 0105-01

What can TxDOT look at as a part of the study in the future?

Name: Robert Eads

Address (optional): 1110 Houston St. LAREDO, TX **ZIP code:** 78040

Email (optional): [redacted] Phone (optional):

(Texas Transportation Code, §201.811(a)(5)): check each of the following boxes that apply to you:
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Submittal 0106 (Leroy Medford, August 9, 2016)

Do you agree with the recommendations?

Northern section

☐ Yes ☐ No (what would you change and why?) ☐No opinion

Central section

☐ Yes ☐ No (what would you change and why?) ☐No opinion

Southern section

☑ Yes ☐ No (what would you change and why?) ☐No opinion

0106-01

Interested in supporting true high-speed rail. It should not be higher-speed rail from San Antonio to Laredo. Support alternate route to I-35 with service to continue from Laredo to Monterrey M,

0106-02

What can TxDOT look at as a part of the study in the future?

Name: Leroy Medford, Webb County Administrator

Address (optional): **ZIP code:**

Email (optional): Phone (optional):

(Texas Transportation Code, §201.811(a)(5)): check each of the following boxes that apply to you:
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Submittal 0107 (D.S. Arbuckle, August 11, 2016)

Do you agree with the recommendations?

Northern section

☒ Yes ☐ No (what would you change and why?) ☐ No opinion

Central section

☒ Yes ☐ No (what would you change and why?) ☐ No opinion

Southern section

☐ Yes ☐ No (what would you change and why?) ☒ No opinion

What can TxDOT look at as a part of the study in the future?

Name: D.S. Arbuckle

Address (optional): **ZIP code:** 75033

Email (optional): Phone (optional):

(Texas Transportation Code, §201.811(a)(5)): check each of the following boxes that apply to you:
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Submittal 0108 (Jason Barton, August 11, 2016)

Do you agree with the recommendations?

Northern section

☑ Yes ☐ No (what would you change and why?) ☐ No opinion

Central section

☑ Yes ☐ No (what would you change and why?) ☐ No opinion

Southern section

☑ Yes ☐ No (what would you change and why?) ☐ No opinion

What can TxDOT look at as a part of the study in the future?

Name: Jason Barton

Address (optional): 1705 West Northwest Hwy, Suite 150 **ZIP code:** 75077

Email (optional): [redacted] Phone (optional): 2149099442

(Texas Transportation Code, §201.811(a)(5)): check each of the following boxes that apply to you:
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Submittal 0109 (Bryan Beck)

Do you agree with the recommendations?

Northern section

☒ Yes ☐ No (what would you change and why?) ☐No opinion

Central section

☐ Yes ☐ No (what would you change and why?) ☐No opinion

Southern section

☐ Yes ☐ No (what would you change and why?) ☐No opinion

What can TxDOT look at as a part of the study in the future?

Name: Bryan Beck

Address (optional): **ZIP code:**

Email (optional): Phone (optional):

(Texas Transportation Code, §201.811(a)(5)): check each of the following boxes that apply to you:
☐ I am employed by TxDOT ☐ I do business with TxDOT ☐ I could benefit monetarily from the project/item I'm commenting on

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Submittal 0110 (Jason Brecht, August 10, 2016)

Do you agree with the recommendations?

Northern section

☐ Yes ☑ No (what would you change and why?) ☐ No opinion

CONVENTIONAL RAIL. HOMOGENEITY MATTERS 0110-01
I DON'T WANT TO CHANGE TRAINS JUST TO GO SLOWER TO OKC FROM AUSTIN. (TYPES) HAVE ALL HIGHER SPEED. (NOT HIGH SPEED.

Central section

☑ Yes ☐ No (what would you change and why?) ☐ No opinion

ITALY HAS HIGH SPEED BUT SHORT DISTANCES W/ MULTIPLE STOPS HAS THEM NOT REALIZE BENEFIT OF COST OF HIG SPEED. THEIRS WORKS AS HIGHER SPEED.

Southern section

☑ Yes ☐ No (what would you change and why?) ☐ No opinion

TO THE VALLEY. ONE OFF TO LAREDO SERVES A MORE 0110-02
FREIGHT PURPOSE.

What can TxDOT look at as a part of the study in the future?

HOUSTON? 0110-03

Name: JASON BRECHT

Address (optional): 3408 NOCONIA COVE **ZIP code:** 78665

Email (optional): ROUND ROCK. Phone (optional):

(Texas Transportation Code, §201.811(a)(5)): check each of the following boxes that apply to you:
☐ I am employed by TxDOT ☐ I do business with TxDOT ☐ I could benefit monetarily from the project/item I'm commenting on

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Submittal 0111 (Greg Sells, August 10, 2016)

Do you agree with the recommendations?

Northern section

☒ Yes ☐ No (what would you change and why?) ☐ No opinion

Central section

☒ Yes ☐ No (what would you change and why?) ☐ No opinion

0111-01

Connection to downtown Austin needed - CapMetro Green Line or airport connector?

Southern section

☒ Yes ☐ No (what would you change and why?) ☐ No opinion

Would Corpus Christi terminal be at airport or downtown?

0111-02

What can TxDOT look at as a part of the study in the future?

Name: Greg Sells

Address (optional): **ZIP code:** 78741

Email (optional): [redacted] Phone (optional):

(Texas Transportation Code, §201.811(a)(5)): check each of the following boxes that apply to you:
☐ I am employed by TxDOT ☐ I do business with TxDOT ☐ I could benefit monetarily from the project/item I'm commenting on

in cooperation with Oklahoma DOT
Texas Department of Transportation

TEXAS OKLAHOMA PASSENGER RAIL STUDY

Texas-Oklahoma Passenger Rail Study

Comment Form

We want to hear what people living and working in the IH-35 corridor think about the route and service alternatives that we plan to advance for additional study. Submit your comments by **August 29, 2016** by **mail**, **online** (http://www.txdot.gov/inside-txdot/projects/studies/statewide/texas-oklahoma-rail.html), or at a **public hearing.**

Submittal 0112 (No Name, No Date)

Do you agree with the recommendations?

Northern section

☑ Yes ☐ No (what would you change and why?) ☐ No opinion

Central section

☑ Yes ☐ No (what would you change and why?) ☐ No opinion

PLEASE MOVE FORWARD WITH THE FEIS, AND WITH ANY OF THE 3 ALTERNATIVES! 0112-01

TEXAS CAN NOT AFFORD TO PUSH THIS COMPLEX PROBLEM OF CONGESTION AND POPULATION GROWTH ANY LONGER. FIND THE MONEY, PARTNER WITH PRIVATE SECTOR, WHATEVER IT TAKES, PLEASE, BUILD A HIGH SPEED RAIL DAL — SA!

Southern section

☑ Yes ☐ No (what would you change and why?) ☑ No opinion

NO COMMENT.

What can TxDOT look at as a part of the study in the future?

Name:

Address (optional): **ZIP code:**

Email (optional): Phone (optional):

(Texas Transportation Code, §201.811(a)(5)): check each of the following boxes that apply to you:
☐ I am employed by TxDOT ☐ I do business with TxDOT ☐ I could benefit monetarily from the project/item I'm commenting on

in cooperation with Oklahoma DOT
Texas Department of Transportation

TEXAS OKLAHOMA PASSENGER RAIL STUDY

Submittal 0113 (Edgar Moreno, August 8, 2016)

From: RRD_Rail
To: Mark Werner; Dan Harmon; Chad Coburn
Subject: FW: TxDOT Internet E-Mail
Date: Monday, August 08, 2016 9:21:06 AM

Please copy me on your response. Thanks!

-----Original Message-----
From: [redacted]
Sent: Friday, August 05, 2016 2:35 PM
To: RRD_Rail
Subject: TxDOT Internet E-Mail

Name: Mr. Edgar Moreno[redacted]
Address:
Félix Cuevas 632, Col. del valle centro Mexico city 03100

Phone:
(552) 057-4242

Requested Contact Method: Email

Reason for Contact: Customer Service
Complaint: No

Comment: I am part of the team TÜV Rheinland Mexico, Rail division. The reason for my email is in relation to Fast Train Monterrey.
We have analyzed the information derived from it and we are at your orders to consider our professional services on rail.
We would like to have contact with you to give us more detailed information.

0113-01

Submittal 0114 (Bryant Tillery, August 8, 2016)

From: Mark Werner
To: Mark Werner
Subject: TOPRS Comment
Date: Monday, August 08, 2016 4:40:37 PM

From Bryant Tillery;

We need to build more roads tool free. High speed trains are Cake and ice we cannot afford. The high ways system need too much repairs and new roads waste on a train only a few will use for years. Bryant Tillery /Dallas,Texas 75206 Please consider **0114-01**

Mark Werner, P.E.
Rail Planning Section Director
Rail Division
Texas Department of Transportation
125 E. 11th Street
Austin, TX 78701-2483
o:512-486-5137
c:512-968-0734
Mark.werner@txdot.gov

Submittal 0115 (Jacob McPherson, August 10, 2016)

From: [redacted]
To: Mark Werner
Subject: TxDOT Internet E-Mail
Date: Wednesday, August 10, 2016 8:27:21 AM

Name: Mr. Jacob McPherson[redacted]
Phone:
(281) 657-5039

Requested Contact Method:

Reason for Contact: Customer Service
Complaint: No

Comment: As a member of the state of Texas for a multitude of generations from its history, I wish to request the replacement of this notion of a rail with the design for the hyperloop. Elon Musk's white paper outlays the design principles and includes the fact that his methodology is more cost-effective and more technologically advanced than CA's LR

0115-01

Submittal 0116 (Rose Walker, August 10, 2016)

From: Becky Ozuna
To: Mark Werner
Subject: TOPRS Comment from Facebook
Date: Wednesday, August 10, 2016 10:18:07 AM

Hi Becky Ozuna,

Rose Walker has assigned a message to you in Hootsuite.

Jacob McPherson

"It is to my understanding that your department is planning for a high speed rail to be built in three sections: (1) from OKC to Dallas, (2) Dallas to San Antonio, (3) San Antonio to The Valley. With all due respect, on behalf of the younger generation and all of those generations to come, who this state will one day belong to, I respectfully request that instead of a rail you build a hyperloop just as Elon Musk has presented in his famous white paper published on the Tesla website (if you don't know what I'm talking about, you can easily google it). He was presented the similar situation of a light rail proposition from San Francisco to Los Angeles for $80B and he proposed his idea for a vastly smaller fraction of the cost, at a faster speed, and to provide electricity back into the grid. Please do not make the mistake of using old technologies. Please look into building a hyperloop for Texas, otherwise, I will"

0116-01

Rose Walker said: ""

View Assignments

Regional Transportation Council

The Transportation Policy Body for the North Central Texas Council of Governments
(Metropolitan Planning Organization for the Dallas-Fort Worth Region)

Statement of Support

Texas-Oklahoma Passenger Rail Program
From: Oklahoma City to the Texas-Mexico Border

Submitted by the Regional Transportation Council and the North Central Texas Council of Governments, together serving as the Metropolitan Planning Organization for the Dallas-Fort Worth area, on August 11, 2016

High-Speed Rail (HSR) service is a vital transportation concept that will help sustain local, regional, state, and national economies. In the North Texas region, this transportation system will serve as a principal route to/from the Dallas-Fort Worth region to points northward to Oklahoma and southward to Austin, San Antonio and beyond. The Regional Transportation Council and the North Central Texas Council of Governments support implementing a high-speed passenger rail service within and approaching the Dallas-Fort Worth region. 0117-01 Connectivity to other high-speed passenger rail services within the Dallas-Fort Worth region will be vital to providing a high-speed passenger rail network. 0117-02 Additionally, connectivity to other transit modes within the region is important for a successful high speed rail system.

The Regional Transportation Council and the North Central Texas Council of Governments encourage the formulation of a recommended alternative to be flexible regarding connection to planned high-speed rail service from Dallas to Houston and planned high-speed rail service from Fort Worth to Dallas. 0117-03 The preferred alignment alternatives recommended for additional analysis in the Service-Level Draft Environmental Impact Statement are not consistent with the adopted Mobility 2040: The Metropolitan Transportation Plan for North Central Texas plan (Plan). 0117-04 Alternatives C4A and C4B are wholly not consistent with the Plan while Alternative C4C is partially consistent with the Plan. In addition, the preferred alignment alternatives are not consistent with the Regional Transportation Council's adopted "Three Station" and "One Seat Ride" policies for high speed rail in the Dallas-Fort Worth region. 0117-05

The high-speed passenger rail alignments identified in the Plan include the following:

- Southward from Downtown Fort Worth generally along the I-35W corridor to the Metropolitan Planning Area Boundary
- Eastward from Downtown Fort Worth generally along the I-30, SH 360 and TRE rail corridor alignment to Downtown Dallas
- Southward from Downtown Dallas generally along the I-45 and electric power transmission line easement to the Metropolitan Planning Area Boundary

The Plan identifies policies guiding high-speed rail system operation. The Plan includes a policy setting forth system interoperability whereby a "one seat" ride will be attained to, from and within the Dallas-Fort Worth region. The interoperability policy allows for and encourages inter- and intra-regional high-speed rail system connectivity. The Plan also identifies the high-speed rail system will operate with three stations in the Dallas-Fort Worth region, located in Fort Worth, Arlington and Dallas.

Contact:
Amanda Wilson, AICP
Public Involvement Manager
(817) 695-9284
awilson@nctcog.org

Kevin Feldt, AICP
Program Manager
(817) 704-2529
kfeldt@nctcog.org

About the Regional Transportation Council
The Regional Transportation Council (RTC) of the North Central Texas Council of Governments has served as the Metropolitan Planning Organization (MPO) for regional transportation planning in the Dallas-Fort Worth area since 1974. The MPO works in cooperation with the region's transportation providers to address the complex transportation needs of the rapidly growing metropolitan area. The 12-county Dallas-Fort Worth Metropolitan Planning Area includes Collin, Dallas, Denton, Ellis, Hunt, Hood, Johnson, Kaufman, Parker, Rockwall, Tarrant and Wise counties. The RTC's 44 members include local elected or appointed officials from the metropolitan area and representatives from each of the area's transportation providers. More information can be found at www.nctcog.org.

About the North Central Texas Council of Governments
The North Central Texas Council of Governments (NCTCOG) is a voluntary association of local governments established in 1966 to assist local governments in planning for common needs, cooperating for mutual benefit, and coordinating for sound regional development. NCTCOG's purpose is to strengthen both the individual and collective power of local governments and to help them recognize regional opportunities, eliminate unnecessary duplication, and make joint decisions. NCTCOG serves a 16-county region of North Central Texas, which is centered around the two urban centers of Dallas and Fort Worth. Currently, NCTCOG has 240 member governments including 16 counties, 170 cities, 24 school districts, and 30 special districts.

Texas-Oklahoma Passenger Rail Study

Comment Form

We want to hear what people living and working in the IH-35 corridor think about the route and service alternatives that we plan to advance for additional study. Submit your comments by **August 29, 2016** by **mail**, **online** (http://www.txdot.gov/inside-txdot/projects/studies/statewide/texas-oklahoma-rail.html), or at a **public hearing.**

Submittal 0118 (Rob Maxwell, August 10, 2016)

Do you agree with the recommendations?

Northern section

☒ Yes ☐ No (what would you change and why?) ☐No opinion

TEXANS ARE FOR HIGH SPEED RAIL. WE NEED AN ALTERNATIVE MODE OF GROUND TRANSPORTATION IN TEXAS. IF THE TEXAS LEGISLATURE WOULD FUND THE RAILROAD RELOCATION AND IMPROVEMENT FUND, THEN THIS MOVES FORWARD AND SOME SPEED- 0118-01

CONTINUED

Central section

☒ Yes ☐ No (what would you change and why?) ☐No opinion

IF SECTIONS CAN BE BUILT WITH INDEPENDENT UTILITY THEN PERHAPS THE PROJECT(S) WOULD BE ENTICEMENT FOR PRIVATE INVESTMENT ON CERTAIN SEGMENTS. IN PARTICULAR THE SEGMENT LINKING SAN ANTONIO TO AUSTIN AND 0118-02a

Southern section

☒ Yes ☐ No (what would you change and why?) ☐No opinion

ALSO A CONNECTION FROM LAREDO TO SAN ANTONIO. I BELIEVE A CONNECTION FROM MONTERREY TO LAREDO WOULD GENERATE SIGNIFICANT RIDERSHIP. BY OFFERING HIGH SPEED (HSR) SERVICE FROM AUSTIN NORTH TO DALLAS ALLOWS 0118-03

What can TxDOT look at as a part of the study in the future?

COLLEGE STUDENTS WHO CANT AFFORD THE COST OF DORMS OR APARTMENTS COULD LIVE AT HOME (SAY AUSTIN) AND ATTEND SCHOOL (UNIVERSITY) IN WACO OR SAT OR DFW AND RETURN HOME AT THE END OF DAY. BY INCREMENTALLY BUILDING SEGMENTS WOULD ALLOW AN INCOME STREAM TO SEED FUTURE SEGMENTS. 0118-04

I ~~SUPP~~ SUPPORT HIGH SPEED RAIL IN TEXAS. FOLLOW ME @TXHighSpeedRail EVERYONE I TALK TO WANTS TO KNOW: "WHEN YOU GOING TO BUILD IT." "WHEN WILL BE OPEN" #BUILDIT 0118-02b

Name: ROB MAXWELL

Address (optional): TEXANS4HIGHSPEEDRAIL @TXHighSpeedRail **ZIP code:**

Email (optional): [redacted] Phone (optional):

(Texas Transportation Code, §201.811(a)(5)): check each of the following boxes that apply to you:
☐ I am employed by TxDOT ☐ I do business with TxDOT ☐ I could benefit monetarily from the project/item I'm commenting on

in cooperation with Oklahoma DOT
Texas Department of Transportation

TEXAS OKLAHOMA PASSENGER RAIL STUDY

TEXAS INTERCITY PASSENGER TRAIN PLAN

The strongest potential passenger train arteries in Texas are in both directions around the "Texas Triangle." The tips of the triangle are Dallas / Fort Worth, Houston, and San Antonio. Here is how it can be accomplished with some additional extensions that allow almost all of the Standard Metropolitan Statistical Areas in the Lone Star State to be served. The triangle itself would have at least two trains each day each direction.

Dallas / Fort Worth to San Antonio

1. Extend the daily Texas Eagle southward to Corpus Christi and the Lower Rio Grande Valley (Harlingen is closest city).

0119-01

2. Extend the daily Heartland Flyer southward to Austin, San Antonio, and Laredo.

Dallas / Fort Worth to Houston

3. The call is for a minimum of two daily passenger trains each way without specifying "high speed" or "regular speed." Hopefully, both would stop in Bryan / College Station. One of the trains ("Cannon Ball Express") would continue northward to Abilene, Lubbock, Amarillo, Denver, and beyond. The other ("Super Chief") would continue northward to St. Louis, Cincinnati and the east coast. An equipment change from "high speed rail" in DFW is not out of the question.

Houston to San Antonio

4. The highest priority is to make the Sunset Limited daily.

5. To establish a second frequency, extend the daily Crescent westward to Beaumont, Houston, and San Antonio.

All of the extensions of existing trains easily would fit with a policy of maintaining six-to-eight-hour minimum head-ways. We support Amtrak and Texas Central trains. Local light rail routes within larger metropolitan areas are also very important and must connect. Space just doesn't allow them to be listed here.

- *Dan Pugh,* Council of Representatives, National Association of Railroad Passengers
361 729-5550 6/2016

STATE OF TEXAS
COUNTY OF CAMERON

RESOLUTION 2016R07055

BE IT RESOLVED THAT ON THE 26TH DAY OF JULY, 2016, THE CAMERON COUNTY COMMISSIONERS' COURT CONVENED IN REGULAR SESSION, AND UPON THE REQUEST OF THE CAMERON COUNTY COMMISSIONERS' COURT, THE FOLLOWING ITEM WAS PLACED ON THE AGENDA OF THE SAID COURT FOR SUCH MEETING, PURSUANT TO GOVERNMENT CODE SECTION 551.041 *ET. SEQ.*, VERNON'S TEXAS CIVIL STATUTES (THE TEXAS OPEN MEETING ACT) TO BE CONSIDERED

"CONSIDERATION AND APPROVAL OF A RESOLUTION IN SUPPORT OF THE FEDERAL RAILROAD ADMINISTRATION AND TEXAS DEPARTMENT OF TRANSPORTATION TEXAS-OKLAHOMA PASSENGER RAIL STUDY AND THE DRAFT ENVIRONMENTAL IMPACT STATEMENT WHICH RECOMMENDS A SOUTHERN SECTION ALTERNATIVE (S4) TO THE RIO GRANDE VALLEY, CAMERON COUNTY, AND THE CITIES OF HARLINGEN AND BROWNSVILLE ."

WHEREAS, THE U.S. DEPARTMENT OF TRANSPORTATION'S (DOT) FEDERAL RAILROAD ADMINISTRATION (FRA) AND THE TEXAS DEPARTMENT OF TRANSPORTATION (TxDOT) HAVE RELEASED A DRAFT ENVIRONMENTAL IMPACT STATEMENT ON THE TEXAS-OKLAHOMA PASSENGER RAIL STUDY; AND

WHEREAS, THE PASSENGER RAIL STUDY ENCOMPASSES ROUTE AND SERVICE ALTERNATIVES FOR PASSENGER RAIL SERVICE BETWEEN OKLAHOMA CITY TO FORT WORTH AND DALLAS (NORTHERN SECTION), AND SOUTH TO SAN ANTONIO VIA AUSTIN (CENTRAL SECTION), AND SOUTH TO LAREDO, CORPUS CHRISTI, AND BROWNSVILLE (SOUTHERN SECTION); AND

WHEREAS, THE PURPOSE OF THE STUDY IS TO EVALUATE ALTERNATIVES TO PROVIDE HIGHER SPEED PASSENGER RAIL SERVICE TO FUTURE INTERCITY TRAVEL DEMAND AND TO IMPROVE RAIL FACILITIES, REDUCE JOURNEY TIMES AND IMPROVE CONNECTIONS THROUGHOUT THE STATE; AND

WHEREAS, THE TEXAS DEPARTMENT OF TRANSPORTATION (TXDOT), ALONG WITH THE OKLAHOMA DEPARTMENT OF TRANSPORTATION IS STUDYING PASSENGER RAIL FROM OKLAHOMA CITY TO SOUTH TEXAS BECAUSE OF CONTINUED CONGESTION ALONG THE IH-35 CORRIDOR AND BECAUSE ESTIMATES SHOW CONTINUING POPULATION GROWTH. WITH LIMITED FUNDING AVAILABLE FOR HIGHWAY IMPROVEMENTS AND INCREASING DEMANDS ON THE TRANSPORTATION NETWORK; AND

WHEREAS, THE STUDY HAS PRODUCED SEVERAL ALTERNATIVES THAT COMPARE THE IMPACTS, BENEFITS AND COSTS; AND

WHEREAS, THE SOUTHERN SECTION ALTERNATIVE BEGINS IN SAN ANTONIO AND CONTINUES SOUTHEAST THROUGH GEORGE WEST TO ALICE AND ONTO THREE DIFFERENT ROUTES TO SOUTH TEXAS; AND

WHEREAS, ALTERNATIVE S4 WOULD PROVIDE A HIGHER SPEED OPTION ALONG AN ABANDONED TRACK TO MCALLEN AND CONNECT TO HARLINGEN AND BROWNSVILLE; AND

WHEREAS, IT IS CRITICALLY IMPORTANT THAT THE CITIES IN THE RIO GRANDE VALLEY INCLUDING THOSE MENTIONED IN THIS STUDY (BROWNSVILLE AND HARLINGEN) ARE CONNECTED AND SERVED BY THIS PROPOSED PROJECT.

0120-01

NOW, THEREFORE, BE IT RESOLVED, THAT THE CAMERON COUNTY COMMISSIONERS' COURT SUPPORTS THIS STUDY SO LONG AS CAMERON COUNTY CITIES ARE CONNECTED AND RESIDENTS ARE SERVED AND ABLE TO UTILIZE THIS FUTURE TRANSPORTATION ALTERNATIVE TO CONVENIENTLY AND SAFELY TRAVEL TO OTHER PARTS OF THE STATE.

APPROVED THIS 26TH DAY OF JULY, 2016.

COMMISSIONERS' COURT OF CAMERON COUNTY, TEXAS

PETE SEPULVEDA, JR.
COUNTY JUDGE

SOFIA C. BENAVIDES
COMMISSIONER PRECINCT 1

DAVID A. GARZA
COMMISSIONER PRECINCT 3

ALEX DOMINGUEZ
COMMISSIONER PRECINCT 2

GUS RUIZ
COMMISSIONER PRECINCT 4

ATTEST:
SYLVIA GARZA-PEREZ
COUNTY CLERK

COMMISSIONER'S COURT ★ CAMERON COUNTY, TEXAS ★

Texas-Oklahoma Passenger Rail Study

Comment Form

We want to hear what people living and working in the IH-35 corridor think about the route and service alternatives that we plan to advance for additional study. Submit your comments by **August 29, 2016** by **mail**, **online** (http://www.txdot.gov/inside-txdot/projects/studies/statewide/texas-oklahoma-rail.html), or at a **public hearing.**

Submittal 0121 (Clinton Waggoner, August 11, 2016)

Do you agree with the recommendations?

Northern section

☒ Yes ☐ No (what would you change and why?) ☐ No opinion

COORDINATE WITH AMTRAK IF CONVENTIONAL RAIL IS TO BE USED. 0121-01

Central section

☐ Yes ☒ No (what would you change and why?) ☐ No opinion

ROUTED TOO FAR EAST OF AUSTIN. NEEDS TO GO THROUGH CENTRAL AUSTIN OR SUFFER THE SAME FATE AS TEXAS 130. ALTERNATIVELY, PROVIDE A FAST, EASY WAY TO ACCESS FROM CENTRAL AUSTIN. 0121-02

VITALLY IMPORTANT TO PROVIDE ACCESS TO DFW AND HOUSTON – DALLAS RAIL. 0121-03

Southern section

☐ Yes ☐ No (what would you change and why?) ☒ No opinion

OPTION TO SERVE ALICE, LAREDO, CORPUS CHRISTI, AND VALLEY IS PREFERABLE. CONCERNED THAT THERE IS SUFFICIENT DEMAND FOR THIS SECTION. 0121-04

What can TxDOT look at as a part of the study in the future?

INCLUDE THE LONE STAR RAIL PLAN OR A SUBSTITUTE TO PROVIDE MORE LOCAL SERVICE IN THE ROUND ROCK TO SAN ANTONIO CORRIDOR WITH CENTRALLY LOCATED STATIONS IN AUSTIN, SAN MARCOS, NEW BRAUNFELS AND SAN ANTONIO 0121-05

Name: CLINTON WAGGONER

Address (optional): **ZIP code:**

Email (optional): CLINTWAG@GMAIL.COM Phone (optional):

(Texas Transportation Code, §201.811(a)(5)): check each of the following boxes that apply to you:
☐ I am employed by TxDOT ☐ I do business with TxDOT ☐ I could benefit monetarily from the project/item I'm commenting on

Please mail comments by August 29, 2016

Fold

Fold

Mr. Clinton N. Waggoner
4508 Small Dr
Austin TX 78731-3625

AUSTIN TX 787
RIO GRANDE DISTRICT
11 AUG 2016 PM 5 L

Tape

Tape

Mark Werner, Rail Division
Texas Department of Transportation
125 E. 11th Street
Austin, TX 78701-2483

78701-248399

REC'D - 8/29/16
IN RRD

CITY OF SAN ANTONIO
TRANSPORTATION & CAPITAL IMPROVEMENTS

August 22, 2016

Mr. Mark Werner
TxDOT Rail Division
125 E. 11th St.
Austin, TX 78701-2409

Re: Texas-Oklahoma Passenger Rail Development Program Service-Level Draft EIS

Dear Mr. Werner:

The City of San Antonio's Transportation & Capital Improvements (TCI) department appreciates the opportunity to provide comments regarding the Texas-Oklahoma Passenger Rail Development Program Service-Level Draft Environmental Impact Statement (EIS). Moving people, not just cars, through multiple modes of transportation is the foundation of our recent planning efforts through the SA Tomorrow Multimodal Transportation Plan. The consideration of mass transit, including high-speed rail, aligns with our transportation goals and would be a tremendous asset to San Antonio and the region. 0122-01

Our recently completed Multimodal Transportation Plan is targeted at an urban and suburban population within the City of San Antonio. Our challenge is to make the right decisions today in both transportation and land use so that we will meet the needs of tomorrow. The City of San Antonio recognizes that to accomplish this we must become more proactive in planning for the future needs of the community through an interdisciplinary approach that looks at projections for housing and jobs and their relationship to the transportation system. The Multimodal Transportation Plan contains a component dedicated to passenger rail and its importance in the progress and sustainability of the transportation network.

The following comments represent the City of San Antonio's view regarding the Texas-Oklahoma Passenger Rail Development Program Service-Level Draft EIS:

- **Southern Section**
  - **S6 high speed option is our preferred route due to several key elements**
    - Station locations in San Antonio and Laredo are essential to the success of the system 0122-02
    - The S6 route is 1/3 the length of the S4 option
    - The S6 corridor has strong elected official leadership demand along the route

- A high-speed rail option provides more frequent service and less wait times that lead to less congestion and emissions 0122-03
- The S6 route provides international service to support growth based upon population projections for the future. 0122-04

  - It is imperative that communication between federal, state, and local entities participate in regular conversation with each other, and Mexico, during the process.

- **Central Section**

  - Our preferred alignment in San Antonio would bring the rail along SH 130 and run through the southern portion of San Antonio. This option would provide a corridor, free of congestion and flow interruption, for the rail as well as future development along the route and around a planned high speed rail station. 0122-05

The opportunity to welcome high-speed rail to San Antonio is an initiative that is fully supported by TCI. In addition, the San Antonio City Council adoption of the Multimodal Transportation Plan on August 11, 2016 reinforces our community's interest and support of passenger rail through San Antonio. We look forward to opportunities to participate in the advancement of multimodal transportation throughout Oklahoma and Texas.

Sincerely,

Mike Frisbie, P.E.
Director/City Engineer

Submittal 0123 (Laurie Reagan, August 22, 2016)

From: [redacted]
To: mark.werner@txdot.gov.
Subject: Texas-Oklahoma Passenger Rail Study
Date: Monday, August 22, 2016 8:04:13 AM

Re: Texas-Oklahoma Passenger Rail Study:

I'm not a community, just a citizen. A few words: "Yahoo & It's about time!"

0213-01

Submittal 0124 (Chad Snow, August 22, 2016)

From: JoAnn Trevino
To: Mark Werner; Dan Harmon
Subject: FW: TxDOT Internet E-Mail
Date: Monday, August 22, 2016 9:34:55 AM

FYI ~ Please copy me on your reply so I can add it to the file.

-----Original Message-----
From: [redacted]
Sent: Sunday, August 21, 2016 5:25 AM
To: AskTxDOT
Subject: TxDOT Internet E-Mail

Name: Mr. Chad Snow[redacted]
Address:
2955 cripple creek trail
grapevine, TX 76051

Phone:
(817) 382-2423

Requested Contact Method:

Reason for Contact: Rail
Complaint: No

Nearest Major City: grapevine

Comment: High speed rail is a terrible idea. Its like investing in VHS tape right before CD players are about to come out. A big waste of money. The Hyperloop will cost much less and carry passengers much faster. Don't put ourselves in dept just to be made obsolete overnight.

0124-01

Submittal 0125 (Dennis Borras, August 24, 2016)

From: Dennis Borras
To: Mark Werner
Subject: Proposed High Speed Rail Comment
Date: Wednesday, August 24, 2016 10:07:38 PM

Mr. Werner:

I do hope that the proposed high speed rail service between Oklahoma and Texas has a planned stop in Temple as well as Waco. **0125-01**

As you may know, the Baylor Scott & White Health system has rapidly expanded in DFW & Central Texas with plans for even more growth. One of their flagship facilities, Baylor Scott & White Medical Center/Temple is a Level One trauma center and offers almost every specialty and subspecialty practice and treatment services. Medical facilities in major Texas metropolitan areas routinely refer patients to BSW/Temple. Many people in Central Texas - especially in Waco - must make the trip to Temple for such needed services not readily available in Waco and surrounding communities. With the significant projected increase expected for medical services for the largest senior population our area expects to see, a high speed rail stop in Temple is a necessary public health investment. Also, Waco is finally attracting more visitors and new residents due to aggressive revitalization efforts by City of Waco and McLennan County leaders which, in turn, will require more medical services from Baylor Scoot & White. Lastly, recruiting of top notch medical professionals to the growing Central Texas area will be improved by greater commuting ease afforded by high speed rail stops in Waco AND Temple. **0125-02**

I trust that the powers that be in Austin will consider this concern in their final decision in locating service stops. As a former longtime Fort Worth resident and 20 year resident of the Waco area, the Waco-Temple-Killeen area WIL BE the next DFW Metroplex of the near future!!

Best Regards,

Dennis Borras
107 Oakland Drive
Lacy Lakeview, TX 76705

--
"The greatest danger for most of us is not that our aim is too high and we miss it, but that it is too low and we reach it." — Michelangelo

Submittal 0126 (Linda Robins, August 24, 2016)

From:	Linda Robins
To:	Mark Werner
Cc:	Wayne Scribner; John Ellis; [redacted]; Brian.Hausknecht@CH2m.COM
Subject:	Texas-OKlahoma Passenger Rail Study comment letter - 8-24-16
Date:	Wednesday, August 24, 2016 10:48:51 AM
Attachments:	Texas-OKlahoma Passenger Rail Study comment letter - 8-24-16.docx

---

Mr. Werner:

Attached are the comments from the Chickasaw Nation regarding your EIS on the Texas-Oklahoma Passenger Rail Study. If you should have any questions or possibly need more information, you may contact this office.

Linda Robins
Environmental Services Area
580-272-5405
[redacted]

Dear Mr. Werner:

Thank you for the opportunity to submit comments on the Environmental Impact Statement (EIS) on the Texas-Oklahoma Passenger Rail Development.

After reviewing the document, specifically the Northern Section, there is no significant impacts to address. It was noted that the Northern Section is utilizing diesel-powered, steel-wheeled trains operation on steel tracks. The Oklahoma section will utilize existing railway of the BNSF and to follow the Heartland Flyer existing route. **0126-01**

There will be negligible effects on any environmental issues within the North Section since it will be using existing conventional railway.

We look forward to working with you and appreciate this opportunity to have input in the planning stage especially in planning possible new locations.

Submittal 0127 (Carolyn Scheel, August 24, 2016)

From:	Carolyn Scheel
To:	Mark Werner
Subject:	High speed rail
Date:	Wednesday, August 24, 2016 10:04:16 PM

Yes, Mark, I do think that it would be a reasonable and profitable win/win for Waco. My brother, Jim Bush, is a former Mayor of Waco and I am very interested in what will improve accessibility to and enjoyment of our wonderful city! **0127-01**

Sincerely,
Carolyn Scheel

Sent from my iPad

Submittal 0128 (Donald Bush, August 25, 2016)

From:	Donald Bush
To:	Mark Werner
Subject:	Rail thru Waco
Date:	Thursday, August 25, 2016 7:05:19 AM

If hi speed rail comes to Texas I sure want it to come to Waco. I'm 66 and maybe it will be finished when I can't drive any more **0128-01**

Sent from my iPhone

Submittal 0129 (A. Glueck, August 25, 2016)

From: Susie Williams
To: Mark Werner
Subject: FW: TxDOT Internet E-Mail
Date: Friday, August 26, 2016 4:28:41 PM

-----Original Message-----
From: Becky Ozuna
Sent: Friday, August 26, 2016 4:22 PM
To: Susie Williams
Subject: RE: TxDOT Internet E-Mail

Sounds like a local issue, but Mark Werner in our rail division is taking all comments on rail public feedback, so maybe to him.

-----Original Message-----
From: Susie Williams
Sent: Friday, August 26, 2016 2:59 PM
To: Becky Ozuna
Cc: Susie Williams
Subject: FW: TxDOT Internet E-Mail

Do you know where this would go?

-----Original Message-----
From: [redacted]
Sent: Thursday, August 25, 2016 10:15 AM
To: Sandra Wiley; Sue Reid; DALINFO
Subject: TxDOT Internet E-Mail

Name: Ms. A Glueck[redacted]
Address:
Trophy Club, TX 76262

Requested Contact Method: Email

Reason for Contact: Rail
Complaint: No

Nearest Major City: Trophy Club

Comment: My Vote is No on Metro Rail proposed.
Also my husband's Vote is No.

0129-01

Submittal 0130 (Reuben Martinez, August 25, 2016)

From: Reuben Martinez
To: Mark Werner
Subject: re: proposed high speed rail line
Date: Thursday, August 25, 2016 7:43:10 AM

How many cars will train consist of ? What distance will be required to slow down to a stop ? If elevated, will passenger area be elevated also ? What about excessive noise ? While an overall good idea, I wonder if a downtown stop is feasible, is it safe, it seems like traffic is getting pretty bad in down town already, will this be another problem ? Thank you for letting me voice some of my concerns

0130-01
0130-02
0130-03
0130-04

Submittal 0131 (Kyle Deaver, August 23, 2016)

From:	Annette Shepherd
To:	Mark Werner
Subject:	Waco MPO Comment Letter - TOPRS Draft EIS
Date:	Thursday, August 25, 2016 2:58:11 PM
Attachments:	TOPRS Tier 1 EIS_waco mpo_comment letter.pdf
Importance:	High

On behalf of the Waco MPO, please accept the attached comments in response to the Draft Environmental Impact Statement for the Texas-Oklahoma Passenger Rail Program.

The Waco MPO greatly appreciates this opportunity to comment, and the effort undertaken by TxDOT in working with stakeholder interests to develop this EIS.

If you have questions or concerns, please contact Chris Evilia or Annette Shepherd.

Respectfully,

Annette Shepherd
Transportation Planner
Waco Metropolitan Planning Organization
P.O. Box 2570
Waco, TX 76702-2570
Voice: (254) 750-5653
[redacted]
www.waco-texas.com/cms-mpo

From:	Annette Shepherd
To:	Mark Werner
Subject:	FW: Waco MPO Comment Letter - TOPRS Draft EIS
Date:	Friday, August 26, 2016 3:48:16 PM
Attachments:	TOPRS Tier 1 EIS_waco mpo_comment letter.pdf
Importance:	High

On behalf of the Waco MPO, please accept the attached comments in response to the Draft Environmental Impact Statement for the Texas-Oklahoma Passenger Rail Program.

From: Annette Shepherd
Sent: Thursday, August 25, 2016 2:58 PM
To: 'Mark.Werner@txdot.gov'
Subject: Waco MPO Comment Letter - TOPRS Draft EIS
Importance: High

On behalf of the Waco MPO, please accept the attached comments in response to the Draft Environmental Impact Statement for the Texas-Oklahoma Passenger Rail Program.

The Waco MPO greatly appreciates this opportunity to comment, and the effort undertaken by TxDOT in working with stakeholder interests to develop this EIS.

If you have questions or concerns, please contact Chris Evilia or Annette Shepherd.

Respectfully,

Annette Shepherd
Transportation Planner
Waco Metropolitan Planning Organization
P.O. Box 2570
Waco, TX 76702-2570
Voice: (254) 750-5653
[redacted]
www.waco-texas.com/cms-mpo

Waco Metropolitan Planning Organization

August 23, 2016

Mr. Mark Werner
Project Manager
Texas Department of Transportation
125 E. 11th Street
Austin, TX 78701-2483

Dear Mr. Werner:

Thank you for the opportunity to comment on the Draft Environmental Impact Statement (Draft EIS) for the Texas-Oklahoma Passenger Rail Program (Program). The Waco MPO identifies long-range transportation priorities for McLennan County and is governed by a 20 member Policy Board comprised of elected officials and modal stakeholder representatives. The Waco MPO Policy Board has endorsed the implementation of a high-speed passenger rail service through Waco and McLennan County and the establishment of a downtown Waco station in Resolution 2016-2, approved on May 5, 2016. A copy of the resolution is enclosed with this letter. 0131-01

The Program's Draft EIS identified three preferred alternatives for the Central Section: C4A High-Speed Rail, C4B High-Speed Rail, and C4C High-Speed Rail. The Draft EIS also identifies Waco as a potential station location. The preferred alternatives, as well as the designation of Waco as a potential station location are consistent with recommendations identified within Connections 2040: The Waco Metropolitan Transportation Plan and previous statements of support approved by the Waco MPO Policy Board. The Waco MPO also concurs with the assessment that high-speed rail service is preferred over higher-speed rail, due to the higher estimated profitability and lower capital construction costs. In addition, the Waco MPO believes that high-speed passenger rail is of greater benefit to the Waco Metropolitan Area in terms of economic opportunity, jobs creation and the redevelopment efforts of the City Center than higher-speed services. 0131-02

We understand that the alignments studied in the Draft EIS are preliminary. As the Program progresses to Tier 2 design and environmental review, we request that the Central Section preferred alternative routes expand the study area through downtown Waco to the west, between IH-35 and US Highway 84. We also request that the existing Waco Intermodal Center at 8th Street and Mary Avenue or a site in the immediate vicinity be considered as the 0131-03

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mpo@wacotx.gov

location for the downtown Waco station. Adding a passenger rail connection complements the establishment of a planned Bus Rapid Transit (BRT) line, and could provide an opportunity for future transit-oriented development.

0131-04

We appreciate our inclusion in this process and look forward to continuing our involvement as this important regional transportation program is further defined and evaluated.

Sincerely,

Honorable Kyle Deaver
Mayor City of Waco
Chair – Waco MPO Policy Board

cc: Waco MPO Policy Board

P.O. Box 2570, Waco, TX 76702-2570
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www.waco-texas.com/cms-mpo
mpo@wacotx.gov

Submittal 0132 (Robert Tickner, August 25, 2016)

From: Bob Tickner
To: Mark Werner
Subject: Texas-Oklahoma Passenger Rail Study.
Date: Thursday, August 25, 2016 5:07:13 PM

Mr. Werner: I have been looking at the webpage information on the Texas-Oklahoma Passenger Rail Study. What I am missing is information on the northern section from Oklahoma City to Fort Worth to Dallas is a station stop in Denton County. For a long time residents of Denton, Krum, and Denton County have attempted to get a station stop on the Heartland Flyer corridor. I am not seeing any notation that a station stop in Krum or Denton County is mention in the study. Denton County is home to over 750,000 residents and the City of Denton is over 125,000. To require Denton County residents to drive over 30 miles to either Fort Worth or Gainesville to use this train is not appropriate with these population numbers. If I have over looked this, can you please point it out. If it is not included in the study, can you advise me how to register my concern and get it considered before the study is finalized. **0132-01**

Thank you. Please feel free to let me know if I can provide you any additional information.
Bob Tickner

Robert K. Tickner
3900 Deer Forest Drive
Denton,TX 76208
[redacted]
940-535-4606

Submittal 0133 (Andrea Wallum, August 25, 2016)

From:	Billy Wallum
To:	Mark Werner
Subject:	Railway
Date:	Thursday, August 25, 2016 11:09:07 AM

I am so ecstatic about the possibility of having a rail system and stop coming to Waco! I've always wondered why they didn't have one and with the growing population and people moving here to out great state it would be a great relief to have a better transportation system and way of getting around without the long and congested drive on I35! **0133-01**

Kudos for the plan. I am in full support of the idea!

And the ease of getting to Oklahoma for concerts and tourism is a plus as well!

Regards.
Andrea Wallum

Sent from my iPhone

REC'D - RRD - 8/18/16

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August 25, 2016

Submittal 0134 (Duane Wilson, August 25, 2016)

Mr. Mark Werner
Project Manager
Texas Department of Transportation
125 E. 11th Street
Austin, Texas 78701

Re: Texas-Oklahoma Passenger Rail Development Program Service-Level Draft EIS

Dear Mr. Werner:

The San Antonio Mobility Coalition, Inc. (SAMCo) supports the continued evaluation of intercity passenger rail service alternatives for the Texas-Oklahoma Passenger Rail Program as part of a system-wide plan to address rising congestion levels along the IH 35 corridor and provide enhanced interconnectivity between DFW, Austin, San Antonio, Laredo and potentially Monterrey, Mexico. 0134-01

SAMCo represents more than eighty public and private sector entities, advocating for funding and implementation of transportation enhancements for the region.

While all three Southern Section Build Alternatives for the Texas-Oklahoma Passenger Rail Program are considered feasible, we urge the Federal Railroad Administration (FRA) and Texas Department of Transportation (TxDOT) to select the alignment option "S6 High Speed Build Alternatives" with service to Laredo and potential connection to Monterrey, Mexico for the following reasons:

1. S6 is the only Southern Section alignment alternative that would provide actual high speed rail service, as opposed to slower options. 0134-02

2. S6 provides the most direct route between San Antonio to Laredo, and to Monterrey, Mexico. 0134-03

3. The route promises ultimately to connect the 7th largest US City (San Antonio) with the 3rd largest metropolitan area in Mexico (Monterrey) with opportunities to expand an already strong economic, trade and tourism relationship. 0134-04

With regard to future location of a high speed rail station in San Antonio, we look forward to working with TxDOT, the Alamo Area MPO, Bexar County, City of San Antonio and other key 0134-05

partners to help determine an optimal location for such a station in order to maximize connectivity with other transportation modes in the region.

On behalf of the San Antonio Mobility Coalition, Inc. (SAMCo), we thank you for the opportunity to provide comments during this public hearing time period.

Sincerely,

Duane Wilson
Board Chair, SAMCo

Victor M. Boyer
President & CEO, SAMCo

Submittal 0135 (Peter LeCody, August 26, 2016)

From: [redacted] on behalf of Peter LeCody
To: Mark Werner
Subject: Public Comment on Texas Oklahoma Passenger Rail Study
Date: Friday, August 26, 2016 10:59:04 AM

Public comment submitted on the Draft EIS of the Texas Oklahoma Passenger Rail Study:

To: Mr. Mark Werner
Rail Division
Texas Department of Transportation

"The I-35 corridor, a heavily traveled main pathway linking three major population regions of Texas, has a dire need for transportation choices other than just building more roads or expanding our highways with additional lanes.

Future growth in our state will require a robust passenger rail system to serve not only the main population centers with fast, frequent and dependable rail service but to also help link growing intermediate towns and cities into a statewide network.

The Draft EIS, as presented by the Texas Department of Transportation, has outlined options for developing passenger rail service within this 655 mile long important corridor.

Except in some segments of major population areas the I-35 highway corridor has few, if any, acceptable parallel roads that can be utlitized to effectively move a large number of people on a timely basis. One of the most critical segments is between Austin and San Antonio which cries out for additional capacity. Passenger rail can add that capacity while maintaining a narrow enviornmental footprint. **0135-01**

I encourage all stakeholders from the cities and counties within the study area to continue to push for the next stage of development.

Our state legislature must become an interested and involved participant in the outcome. Our leaders must look at the benefits of public investment into passenger rail, the use of public-private partnerships where feasible and the potential of private companies developing higher and high speed rail service.

Passenger rail development in the I-35 corridor has been ignored for too long. I look forward to the Final EIS, Record of Decision. Our only option should be to proceed with passenger rail development in this important trade corridor."

Submitted by
Peter J LeCody
President, Texas Rail Advocates
800 Jaguar Lane
Dallas, Texas 75226

www.TexasRailAdvocates.org

Submittal 0136 (Richard Alain, August 28, 2016)

From:	[redacted]
To:	Mark Werner
Cc:	Alain Richard; Caroline Baud; Julien Gaudremeau
Subject:	Public Comment on Texas Oklahoma Passenger Rail Study
Date:	Sunday, August 28, 2016 2:36:08 PM
Attachments:	Mail to Mark Werner.pdf

to email : Mark.Werner@txdot.gov

To: **Mr. Mark Werner**
Rail Division
Texas Department of Transportation

Dear Sir,

France has been working in Texas for more than 30 years starting in 1985 with the Texas TGV project.

Rail Concept is an independant railway consulting firm working mainly in the development of High Speed Rail in France but also being involved in Europe Asia and Africa.

Our staff included some of the experts that worked at the very beginning of the Texas project from TxTGV to the present day, and they have a global understanding of all aspects of High Speed Rail.

We would like to take the opportunity of the public comments of the Texas Oklahoma Passenger study to say that we strongly support this initiative.

0136-01

We agree the way the study is conducted and naturally we will support all the major findings.

Having be involved in the global process of the development of High Speed Rail in Texas, our remarks are the following:

As High Speed Rail is not really in operation in North-America, we sugest that Texas Dot concentrate the efforts on the first leg to be build to start with. And for us, this first leg is clearly the Austin San-Antonio corridor. **0136-02**

Advantges:

First : Connecting the State Capital with a major city of this State
Second : Relatively easy to build and operate corridor
Third : good financial rate of return making this first leg a **demonstrator** of what really High Speed Rail is and then planning the develoment of the entire network.

This is exactly what others Countries have done, to start with a project that is sustainable on the many fields of operation, building, economy and financially. Rememebr that High Speed Rail is a World standard now to reduce emissions of dangerous gaz for the environment, preserving the wild live and being able to maximize the use of fossil energy.

For all these reasons, **we strongly support the next stage of the Study**, and state that **we will be here to support Texas Dot in the development of this Study if you need help.** **0136-03**

Best regards.

Submitted by

Richard Alain

CEO Rail Concept

Arduin Jean-Pierre
International Expert Rail Concept
[redacted]

34, rue de la République
30133 Les Angles
France

www.railconcept

Email always the best to communicate

to email : Mark.Werner@txdot.gov

To: **Mr. Mark Werner**
Rail Division
Texas Department of Transportation

Dear Sir,

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Best regards.

Submitted by

Richard Alain
CEO Rail Concept

Arduin Jean-Pierre
International Expert Rail Concept

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30133 Les Angles
France

www.railconcept

Email always the best to communicate

Submittal 0137 (Chris Rios, August 26, 2016)

From: Rios, Chris
To: Mark Werner
Subject: Support high speed rail
Date: Friday, August 26, 2016 9:15:20 PM

Dear Mr. Werner,

I am writing to voice my support for high speed rail in Texas and a stop in Waco. I hope to see this progressive initiative come to pass. **0137-01**

Best wishes,
Chris Rios

Sent from my iPhone

Submittal 0138 (Jessica Schmeler, August 26, 2016)

From:	Jessica Schmerler
To:	Mark Werner
Subject:	TPWD Comments on the TOPRS Service-level DEIS
Date:	Friday, August 26, 2016 3:29:41 PM
Attachments:	image001.gif WL36867TOPRSServiceLevelDEISC08-26-2016.pdf

---

Hi Mark,

Please find TPWD's comment letter attached on the TOPRS Service-level DEIS. A hard copy is also in the mail. Please let me know if you have any questions!

Thanks!
Jessica

Jessica E. Schmerler
Texas Parks and Wildlife Department
Wildlife Division - Habitat Assessment Program
4200 Smith School Road
Austin, TX 78744

Phone: (512)389-8054
Fax: (512)389-4599
Jessica.schmerler@tpwd.texas.gov

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Rec'd 8/30/2016

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August 26, 2016

Mr. Mark Werner
Texas Department of Transportation – Railroad Division
125 E. 11th Street
Austin, TX 78701

RE: Texas – Oklahoma Passenger Rail Study Service-Level Draft Environmental Impact Statement

Dear Mr. Werner:

Texas Parks and Wildlife Department (TPWD) has reviewed the Draft Environmental Impact Statement (DEIS) for the above-referenced project and offers the following information, comments, and recommendations concerning portions of this project located in Texas.

Please be aware that a written response to a TPWD recommendation or informational comment received by a state governmental agency may be required by state law. For further guidance, see the Texas Parks and Wildlife Code, Section 12.0011, which can be found online at http://www.statutes.legis.state.tx.us/Docs/PW/htm/PW.12.htm#12.0011. For tracking purposes, please refer to TPWD project number 36867 in any return correspondence regarding this project. 0138-01

Project Description

The Texas Department of Transportation (TxDOT), along with the Federal Railroad Administration (FRA), prepared a DEIS to evaluate intercity passenger rail service alternatives for the Texas-Oklahoma Passenger Rail Program (Program), extending from Oklahoma City to the Texas-Mexico border. Preparation of a service-level Environmental Impact Statement (EIS) is one of two primary objectives of the Texas-Oklahoma Passenger Rail Study (Study). The Study also includes preparation of a service development plan for the corridor to guide further development and capital investment in passenger rail improvements identified in the EIS Record of Decision. The Oklahoma Department of Transportation is a partnering state agency for the Study and the EIS.

The DEIS evaluates a range of corridor alternatives and passenger rail service types and recommends a preferred alternative within the DEIS Study Corridor, location of train service termini, and type of service. A No Build Alternative and multiple build alternatives were evaluated. The build alternatives include infrastructure improvements in existing or prior rail corridors, the development of one or more new rail corridors, or a combination of both.

The Program could provide new and upgraded intercity passenger rail service along an 850-mile corridor extending approximately from Oklahoma City to south Texas. The Program corridor runs north-south and roughly parallels Interstate Highway (IH)-35,

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with the northern point in Edmond, Oklahoma (northern end of the Oklahoma City portion of the corridor), and the southern end of the corridor in south Texas, potentially in Corpus Christi, Brownsville, Laredo, or the Rio Grande Valley. The corridor was divided into the following three geographic sections:

- Northern Section: Oklahoma City to Dallas and Fort Worth
- Central Section: Dallas and Fort Worth to San Antonio
- Southern Section: San Antonio to south Texas (Corpus Christi, Brownsville, Laredo, and the Rio Grande Valley) with the option to extend to Monterrey, Mexico

The service-level EIS addresses broad corridor issues and alternatives. A preliminary alignment was developed to represent each alternative based on conceptual engineering that considered and avoided obvious physical or environmental constraints. These alignments were not refined to optimize performance, reduce cost, avoid specific properties or individual environmental resources, or for any other such considerations. If an alternative is selected at the service level for further development, the above considerations would be assessed in subsequent project-level National Environmental Policy Act (NEPA) evaluations that will analyze site-specific projects based on the service-level analyses.

If a build alternative is selected at the conclusion of the service-level EIS, project-level NEPA analysis will be conducted prior to implementation of the Program elements within the selected alternative and, where appropriate, will incorporate by reference the data and evaluations included in the service-level EIS. Subsequent NEPA analyses will concentrate on the issues specific to the component of the alternative selected and analyze the environmental consequences and measures necessary to avoid, minimize, or mitigate potential environmental effects of the component projects.

Three service types were considered in this DEIS: conventional rail, higher-speed rail, and high-speed rail. The build alternatives were developed to a level of detail appropriate for a service-level analysis; preliminary alignments represent potential corridors where rail improvements could be implemented but do not specify the precise location of the track alignment. A 500-foot-wide DEIS Study Area has been identified along the route of each build alternative, providing an envelope that could accommodate areas for associated effects, including roadway shifts, grade separations, construction activities, and affiliated features such as stations and parking, traction-power substations, power lines, and maintenance-of-way facilities.

Alternatives in the Northern, Central, and Southern sections could be built as individual, standalone projects or in combination with alternatives in another section. In addition, more than one alternative in the Central Section and Southern Section could be built in the future because the alternatives provide different service types for independent destinations.

The route alignments are described in terms of nearby transportation corridors and cities. For example, potential alignments are described as "following" railway corridors, which could mean that they are sharing existing tracks, are located within an existing right-of-way (ROW), or are generally adjacent to existing tracks depending on the service type.

The Southern Section alternatives include a potential extension to Monterrey, Mexico. For Alternative S6, an extension from Laredo to Monterrey could follow an alignment that has been studied by Mexico, and is therefore considered feasible. The EIS evaluates alignment corridors only within the United States; however, the potential extension to Monterrey has been included for ridership analysis purposes for Alternative S6, and FRA and TxDOT have initiated coordination with the Mexican government about the potential extension.

Recommended preferred alternatives have been identified based on differentiating metrics for each of the geographic sections in the Study. Metrics that differentiate between alternatives are based on the overall Study purpose and need, as well as the purpose and need for each geographic section. Preferred alternatives are recommended for each geographic section separately because the Study does not analyze alternatives that extend between Oklahoma City and Laredo/Brownsville, but rather to the endpoint cities of each geographic section (Northern, Central, and Southern). In addition, more than one alternative in the Central Section or Southern Section could be built in the future to provide different service options or serve different cities. Recommendation of these preferred alternatives does not preclude connectivity between geographic sections of the Study, but it does not assume connectivity either. Details about how preferred alternatives might connect would be analyzed during project-level analysis after completion of the service-level EIS.

The recommended preferred alternatives for each geographic section are as follows:

- Northern Section
  - N4A Conventional
- Central Section
  - C4A High-Speed Rail
  - C4B High-Speed Rail
  - C4C High-Speed Rail
- Southern Section
  - S4 Higher-Speed Rail
  - S6 Higher-Speed Rail or High-Speed Rail, but only with a connection to Monterrey, Mexico

Conventional rail service in Oklahoma and Texas are shared-use corridors, meaning that the passenger rail service operates on a freight rail line owned by a "host" railroad, such as BNSF Railway or UPRR. Conventional rail would typically operate at top speeds of up to 79 to 90 mph. This service type would primarily use existing railroad

ROW and existing railroad track; in some cases, modifications such as double-tracking could be constructed within the existing ROW to accommodate additional trains.

In many cases, higher-speed rail trains can run on the same steel tracks that support conventional rail service, but higher speeds can require improvements such as upgrading wooden ties to concrete ties and grade separating roadway crossings. For the purposes of the DEIS, higher-speed rail trains are assumed to be diesel-powered. Higher-speed rail would be operated at top speeds of up to 110 to 125 mph.

Where proposed within an existing railroad ROW, higher-speed rail would share ROW with the existing host railroad, but would construct separate tracks for the passenger service. Because of its maximum speed and because train frequency would be similar to conventional rail, higher-speed rail could operate on a single track with passing locations and would not require double-tracking. Where higher-speed rail is proposed outside an existing transportation corridor, the new alignment would be designed with curves and other features that could accommodate high-speed rail service, if warranted by ridership and economically feasible, in the future. For the purposes of this DEIS, unlike high-speed rail, the design would not include electrification and would include a mixture of single and double track, and some at-grade crossings would remain. In some short segments in dense urban areas, existing track shared with freight may be used by new passenger rail, operated at reduced speeds. Newly constructed track would be dedicated exclusively to passenger rail service.

High-speed rail service uses electric trains powered by an overhead power supply system. Train sets are steel wheel on steel rail, but are designed to operate at high speeds with an aerodynamic shape and specialized suspension and braking systems. High-speed rail would operate at top speeds of up to 220 to 250 mph. The entire ROW would be enclosed and fully grade-separated. The alignment would be electrified and double-tracked and would be dedicated entirely to high-speed passenger rail service. This service type could only reach its maximum speeds outside existing transportation corridors because existing railroad alignments are not compatible with the speeds required, and they do not have the required space for separation of freight and high-speed rail. In areas where this service type is within existing transportation corridors, it would operate at lower speeds.

Previous Coordination

TPWD provided scoping comments and recommendations regarding the Texas – Oklahoma Passenger Rail Study to TxDOT on April 22, 2013. These comments and recommendations were included in Table 3-1d: Summary of Public Scoping Comments – Elected Officials and Agencies (State Agencies within Texas). 0138-02

Recommendation: Please review previous TPWD correspondence and consider the recommendations provided, as they remain applicable to the project as proposed but are not repeated in this letter. TPWD also recommends including this letter regarding the DEIS in the appropriate appendix of the Final EIS that will be prepared for this project.

Threatened and Endangered Species

Section 3.5.1 (page 3.5-1) of the DEIS states that "there are no specific federal or state laws or regulations that apply to natural ecological systems and wildlife in general." TPWD notes that the Parks and Wildlife Code (PWC) § 12.0011 describes TPWD's regulatory role in investigating fish kills or events that result in the loss of fish and wildlife resources and seeking restitution for those losses. PWC §61.005 defines wildlife resources as all wild animals, wild birds and aquatic animal life, not just game species or threatened/endangered species and prohibits the taking of wildlife resources. Also, PWC §63 includes regulations pertaining to the protection of bats, wolves, and armadillos. A person must have a hunting license to kill **any** wild animal; not just game species. 0138-03

Recommendation: TPWD recommends removing the above-mentioned statement from the EIS because it does not accurately reflect the regulations regarding protection of wildlife in Texas. TPWD also recommends including applicable PWC regulations in the discussion of "Laws, Regulations, and Orders" in Section 3.5.1 of the DEIS.

Section 3.5.2 of the DEIS indicates that National Land Cover Database (NLCD) was used to determine land cover in the project corridor. Appendix H (page 3-2) of the DEIS indicates that the Ecological Mapping Systems of Texas (EMST) was used in the Natural Ecological Systems and Wildlife Technical Study (Appendix G) and corresponding section of the DEIS; however, no reference to the EMST was found in either the DEIS or the technical study. 0138-04

Recommendation: TPWD recommends using the EMST as a tool to further refine land cover and land use in project area. EMST data can be found online at http://tpwd.texas.gov/gis/data/downloads#EMS-T. Please note that a similar dataset is now available for Oklahoma (see http://www.wildlifedepartment.com/facts_maps/ecoregions.htm). TPWD also recommends reconciling the above-mentioned statements regarding the NLCD and EMST and revising the EIS and associated appendices accordingly.

Section 3.5.3 (page 3.5-4) of the DEIS states that "Based on the 2011 Environmental Occurrences for Federal and State Listed and Tracked Threatened, Endangered, and Rare Species spatial dataset (Michael Baker Jr., Inc. 2012), one sensitive terrestrial plant community, Little Bluestem-Indiangrass series (*Schizachyrium scoparium-sorghastrum nutans* series), is located within the EIS Study Area." Section 3.7.2 of the DEIS states that the 2011 Environmental Occurrences for Federal and State Listed and Tracked Threatened, Endangered, and Rare Species spatial dataset was acquired from the TPWD Texas Natural Diversity Database (TXNDD). 0138-05

Section 3.5.3 (page 3.5-4) of the DEIS also includes the following statement regarding TXNDD occurrences located within the EIS study area:

> *Based on the same dataset [TXNDD], one type of animal assemblage, identified as a "rookery," is located within the EIS Study Area. Rookeries, or breeding grounds of colony-forming species, are important in an ecosystem as they are home to migratory and resident wading birds and shorebirds. No other natural plant communities or other significant features (e.g., bat caves, prairie dog towns) occur within the EIS Study Area.*

TPWD notes that data received in 2011 is considered out of date, as the TXNDD is updated continuously based on new, updated and undigitized records. The above-mentioned statement is no longer accurate; the current TXNDD dataset shows several occurrences of different natural plant communities located within the DEIS Study Area.

> **Recommendation:** TPWD recommends requesting TXNDD data frequently throughout the project planning process, at least every three to six months, as the TXNDD is continuously being updated with new data. TXNDD data can be requested via email at TexasNatural.DiversityDatabase@tpwd.texas.gov. TPWD recommends revising all sections of the EIS that use 2011 TXNDD data with analyses using current data.
>
> If the 2011 Environmental Occurrences for Federal and State Listed and Tracked Threatened, Endangered, and Rare Species spatial dataset consists solely of data from the TXNDD, TPWD recommends revising the EIS to cite the TXNDD where it was used.

Section 3.5.3.1.2 (page 3.5-5) of the DEIS includes the following statement (with emphasis added):

> *Wildlife Corridors and Assemblages and Sensitive Plant Communities Based on the spatial datasets acquired from TXNDD and Oklahoma Department of Wildlife Conservation (ODWC) (2014) and shown on Figure 3.5-1,* ***approximately 85 acres of animal assemblage area (rookeries) occur within the EIS Study Area*** *for Alternative N4A. No other wildlife corridors and assemblages or sensitive plant communities were identified within the EIS Study Area.*

Section 3.7.2 (page 3.7-4) of the DEIS includes the following statement (with emphasis added):

> *To evaluate the potential effects on threatened and endangered species from construction and operation of the alternatives,* ***the following acreages were quantified: Acreage of special-status plant and wildlife occurrences.*** *Potential effects of each alternative were determined using special-status species data by comparing locations of known occurrences and acreages of special-status plant and wildlife species within the EIS Study Area. It should be noted that actual potential habitat for listed species would most likely be more*

widespread and would be determined during focused surveys conducted during a project-level National Environmental Policy Act (NEPA) analysis.

TPWD notes that TXNDD records used to represent occurrences (rookeries, plant communities, rare and protected species) **should not be interpreted as representing exact acreages of that community or potential habitat for rare and protected species.** In the TXNDD, every occurrence is represented geographically as a polygon. This polygon is a combination of the geographic location of the reported observation and the locational uncertainty of the observation for all elements of the same type within scientifically-determined separation distances. The polygons include an error buffer (locational uncertainty) to the original point location based on the precision of that record. A *TXNDD Shapefile Data Interpretation and Use* document is attached for your reference. 0138-06

Recommendation: TPWD recommends revising all tables and text in the EIS and associated appendices accordingly using the correct method of interpreting GIS data in the database. Please review the attached *TXNDD Shapefile Data Interpretation and Use* document for a better understanding of how the data should be used and interpreted. For questions on how to correctly interpret TXNDD data for the purposes of project planning, please contact the database management staff at TexasNatural.DiversityDatabase@tpwd.texas.gov.

Section 3.5.2 (page 3.5-2) of the DEIS states that "Available information, such as land use coverage, wildlife corridors and assemblages, and sensitive plant communities, was used to assess the potential magnitude or intensity of the effects." Page 3.5.5 of the DEIS states "Based on the spatial datasets acquired from TXNDD and Oklahoma Department of Wildlife Conservation…approximately 85 acres of animal assemblage area (rookeries) occur within the EIS Study Area for Alternative N4A. No other wildlife corridors and assemblages or sensitive plant communities were identified within the EIS Study Area." 0138-07

The DEIS does not provide clear information regarding the data source used to assess the presence of wildlife corridors within the DEIS Study Area. TPWD notes that wildlife corridors are not tracked or mapped in the TXNDD, therefore absence of wildlife corridors in the TXNDD does not indicate that this habitat type was not present in the DEIS Study Area.

Recommendation: As stated above, TPWD recommends revising the EIS and associated appendices accordingly using the correct method of interpreting GIS data in the database. Please review the attached *TXNDD Shapefile Data Interpretation and Use* document for a better understanding of how the data should be used and interpreted. TPWD also recommends removing any reference to the presence, absence, or impacts to wildlife corridors from the analysis in the EIS if the TXNDD data was used to make these determinations, or cite an appropriate dataset that can be used to delineate wildlife travel corridors.

TPWD notes that the proposed project crosses two designated mussel sanctuaries (San Marcos River and Rio Grande River) per Texas Administrative Code (TAC) Title 31 Section 51.157. These mussel sanctuaries and the associated TAC section are not mentioned in Section 3.7.1.2 of the DEIS. Mussel sanctuaries protect populations of both rare and commercially valuable species from harvest. Designation of the sanctuaries is based on the most current scientific survey data available about the occurrence of mussel populations. Although this designation protects mussels from harvest only, designated waterways are selected because they support populations of rare and endemic mussel species, or are important for maintaining, repopulating, or allowing recovery of mussels in watersheds where they have been depleted. These sanctuaries manage mussels by providing for repopulation after harvest or other use, or loss due to environmental conditions. 0138-08

> **Recommendation:** TPWD recommends including a discussion of designated mussel sanctuaries and the associated applicable state codes in Section 3.7.1.2 of the EIS.

Section 3.7.2 (page 3.7-4) of the DEIS includes the following statement: 0138-09

> *Federally and state-listed species in Texas were identified through a review of the 2011 Environmental Occurrences for Federal and State Listed and Tracked Threatened, Endangered, and Rare Species spatial dataset, acquired from the TPWD Texas Natural Diversity Database (TXNDD) (Michael Baker Jr., Inc. 2012). Oklahoma federally and state-listed species were identified through a review of the county-by-county list of endangered and threatened species published by ODWC. For the service-level analysis of threatened and endangered plant and animal species, only TXNDD data and the county-by county list were used.*

TPWD notes that the TXNDD is intended to assist users in avoiding harm to rare species or significant ecological features. Given the small proportion of public versus private land in Texas, the TXNDD does not include a representative inventory of rare resources in the state. Absence of information in the database does not imply that a species is absent from that area. Although it is based on the best data available to TPWD regarding rare species, the data from the TXNDD do not provide a definitive statement as to the presence, absence or condition of special species, natural communities, or other significant features within your project area. These data are not inclusive and cannot be used as presence/absence data. They represent species that could potentially be in your project area. The DEIS reliance on the TXNDD to determine which species have the potential to inhabit the study area as well as the potential impacts that the proposed project may have on these species is not an appropriate use of this dataset.

> **Recommendation:** As done for Oklahoma, TPWD recommends reviewing the TPWD county by county lists to determine which species (rare and protected) have the potential to occur within the DEIS Study Area. The TXNDD can be used to supplement an evaluation of the county lists, but should not be the primary source

used to determine which species have the potential to occur within the DEIS Study Area. The TPWD county by county lists can be found online at http://tpwd.texas.gov/gis/rtest/. TPWD notes that the county lists are updated continuously and these lists should be checked frequently throughout the project planning process.

Section 3.7.2 (page 3.7-5) includes the following statement regarding critical habitat: 0138-10

> *Potential effects of each alternative were determined using acreages of critical habitat within the EIS Study Area. Data used for analysis were obtained from the TXNDD and the Oklahoma Department of Transportation, High-Speed Intercity Passenger Rail I-35 Corridor, Oklahoma, Data Collection Report (Meshek & Associates 2013).*

TPWD notes that U.S. Fish and Wildlife Service (USFWS) designated critical habitat is not tracked or mapped in the TXNDD.

Recommendation: TPWD recommends obtaining USFWS designated critical habitat online at https://ecos.fws.gov/ecp/report/table/critical-habitat.html. TPWD recommends incorporating these data into the DEIS and revising the document and associated appendices accordingly.

Section 3.7.3 (page 3.7-5) states "Table 3.7-1 lists the 18 sensitive plant species that potentially occur within the EIS Study Area and describes each species general habitat type and requirements." TPWD notes that Table 3.7-1 is titled "Sensitive Plant Species within the EIS Study Area". 0138-11

Section 3.7.3 (page 3.7-8) states "Table 3.7-2 lists the 22 sensitive wildlife species and their general habitat requirements that potentially occur within the EIS Study Area based on the spatial dataset acquired from the TXNDD." TPWD notes that Table 3.7-2 is titled "Sensitive Wildlife Species within the EIS Study Area".

Recommendation: TPWD recommends revising the titles of Table 3.7-1 and Table 3.7-2 to indicate that these sensitive plant and wildlife species have the *potential* to occur within the EIS Study Area.

As previously mentioned, the sensitive plant and wildlife species that the DEIS concludes have the potential to occur within the EIS Study Area were determined using the TXNDD. The TXNDD represents known occurrences of species and communities that have occurred at one time, but should not be used as the only method to determine which species have the potential to occur within the EIS Study Area.

Recommendation: As stated above, TPWD recommends reviewing the TPWD county by county lists to determine which species (rare and protected) have the potential to occur within the EIS Study Area. TPWD recommends revising Table 3.7-1 and Table 3.7-2 to include all of the species listed on TPWD's county lists as potentially occurring. TPWD also recommends revising the remainder of the EIS

(including applicable appendices) that use the information from these tables in the analysis to determine potential impacts to species. Because the DEIS used TXNDD data as its sole source in determining which species have the potential to occur, numerous state-listed and rare species that occur and have the potential to occur within the EIS Study Area are not identified in the DEIS as potentially occurring. TPWD believes that it is important that the service-level EIS at least identify all species that potentially occur in the EIS Study Area based on TPWD county lists to inform the public and decision-makers of the resources that could be affected by the project if suitable habitat is encountered during project-level surveys.

Section 3.7.3.3 of the DEIS suggests that although rare plant occurrences intersect the EIS study area in the southern section, since portions of the southern section would be constructed in abandoned rail ROW (i.e., previously disturbed areas) there is no potential for rare plants to occur in the study area. TPWD notes that some rare plants do well in maintained ROW as the maintenance mimics necessary disturbance required by the plant. Some plants may be pioneer species that do well in disturbed areas. Or alternatively, some abandoned railroad ROWs, particularly ones that are fenced, can contain exceptional plant diversity if grazing pressure has been removed. 0138-12

Recommendation: TPWD recommends revising the EIS and associated appendices where the above-mentioned conclusion is made. TPWD recommends replacing that statement with information indicating that several species of rare plants do well in disturbed ROWs.

"Footnote a" in Table 3.7-4 (page 3.7-23) of the DEIS states that "TxDOT staff also noted that black bear and ocelot are found in the area. These species were not included in the resource agency databases and are, therefore, not referenced in this document." TPWD notes that in order for the EIS to be as comprehensive as possible and function as a valuable tool in assessing potential impacts, even at this service-level EIS, all relevant information should be included and evaluated. Excluding species from evaluation because the TXNDD polygons do not intersect the EIS Study Area, despite reports of those species in the area from other sources, is another example of TXNDD misinterpretation and misuse. 0138-13

Recommendation: TPWD recommends revising the EIS and associated appendices to include the black bear and ocelot, as well as any other rare and protected species that has been reported in the EIS Study Area, in the analysis of potential impacts to rare and protected wildlife species. As previously mentioned, the TXNDD should be used as a planning tool only and does not include a representative inventory of rare resources in the state.

Section 3.7.4 (page 3.7-27) of the DEIS states that "Operations effects on wildlife for conventional and higher-speed rail would include making wildlife movement vulnerable to an increased risk of strikes from the additional rail traffic along the routes." TPWD notes that operational impacts of railroads are not limited to strikes. The tracks themselves function as barriers to movement for small wildlife, particularly amphibians and reptiles. Studies have demonstrated how fatal they can be to tortoises 0138-14

that enter the inter-track space at at-grade crossings and then follow the track until they either die of dehydration, or predation, or are struck by trains.

Recommendation: TPWD recommends revising the EIS and associated appendices to include a discussion of the additional operational impacts of railroads on wildlife mentioned above.

Section 3.7.4 (page 3.7-27) of the DEIS states that "High-speed rail would be completely fenced; therefore, the risk of strikes would be lower for this service type. Additionally, construction of new tracks on rail bed elevated above the floodplain could create barriers to wildlife movement. High-speed rail would be fully grade-separated; therefore, more passages for wildlife would likely be included." 0138-15

Recommendation: TPWD notes that completely fencing the high speed rail would limit movement of wildlife as well as livestock. Mitigation strategies in Section 3.7.5 include constructing at least one crossing within an individual's home range. Many state-listed species that would benefit from wildlife crossings (e.g., Texas horned lizard, Texas tortoise, reticulate collared lizard) have home ranges of 5 to 10 acres. Therefore, TPWD recommends, throughout much of south Texas, incorporating appropriately sized wildlife crossings every 100 to 200 yards.

Section 5.2 (page 5-2) of the DEIS states that in the Central Section the project "would have a substantial adverse effect, even with mitigation, on state-listed and federally listed sensitive wildlife species." Page 5-4 of the DEIS states that in the Southern Section the project "would affect a large amount of land and would have a substantial adverse effect, even with mitigation, on federally-listed and sensitive plant and wildlife species." Unavoidable adverse impacts to state-listed species were not mentioned for the Southern Section, unavoidable adverse impacts to sensitive plant species were not mentioned for the Central Section, and no unavoidable adverse impacts to threatened and endangered plant or wildlife species were included for the Northern Section. Several sections within the DEIS as well as associated appendices claim that the proposed project would have negligible effects on wildlife corridors and assemblages, sensitive plant communities, and threatened and endangered wildlife species. The DEIS does not explain how these conclusions can be drawn without on-the-ground surveys or evaluating the habitat requirements for all of the species on the TPWD county lists. 0138-16

Recommendation: TPWD recommends removing the above-mentioned statements from the EIS and associated appendices or present data in the EIS to explain how they were drawn. If removing these statements is not feasible, the EIS should indicate that these effects are assumed and cannot be determined until on-the-ground surveys are conducted.

If the conclusions discussed above were made based on the absence of TXNDD data, please refer to previous recommendations regarding appropriate use and interpretation of those data.

Managed Areas

The narrative of Section 3.17.2 (page 3.17-2) of the DEIS regarding recreational areas and opportunities indicates that TPWD websites were accessed to help identify TPWD parks and wildlife management areas (WMAs) for this chapter. However, the references listed for Section 3.17 in Section 11 (References) on page 11-18 do not include any TPWD citations. 0138-17

Recommendation: TPWD recommends revising the EIS to either remove TPWD websites from the list of online resources used on page 3.17-2, or include the applicable TPWD citations in the references section for Chapter 3 .17 on page 11-18. TPWD also recommends accessing the Land and Water Resources Conservation and Recreation Plan (L WRCRP) 2012 Statewide Inventory found at http://tpwd.texas.gov/gis/apps/lwrcrp// to aid in the review of local, state and federal parks and recreation areas in Texas. Please note that the 2012 L WRCRP inventory may not include a comprehensive list of local, county, state and federal properties and should be used in conjunction with other sources for determining conservation and recreation properties in the project area such as the U.S. Geological Survey Protected Areas Database of the U.S.

Section 3.17 correctly identifies Ray Roberts WMA as occurring along Corridor N4A. TPWD notes that the US. Army Corps of Engineers property crossed by Corridor C4C at Granger Lake is managed under a long-term lease with TPWD as a public hunting area. The DEIS identifies that Corridor S6 would bisect the Chaparral WMA in Dimmit County but concludes negligible effects on recreational resources along Corridor S6. This conclusion is based on a statement in the DEIS indicating that impacts to the WMA may be avoided at the project level because there are large areas around the WMA where the alignment could be routed to minimize potential impacts. 0138-18

The reason for concluding that there would be negligible impacts on recreational resources for Alternative S6 at the service level is unclear to TPWD. As stated above, impacts on the Chaparral WMA may be avoided at the project level, but at the service level Alternative S6 is shown bisecting the Chaparral WMA. Therefore, it appears to be premature to conclude negligible impacts to recreation areas until the alignments have been determined at the project level.

Recommendation: TPWD recommends that the EIS identify significant impacts to recreational resources along Corridor S6 due to the fact that the corridor is depicted as crossing the WMA, which would greatly disrupt the management and public use of the property. TPWD does not agree with the conclusion that impacts would be negligible based on the alignment presented in the DEIS. In order for the EIS to indicate that impacts would be avoided by routing around the WMA, the EIS should present a corridor alternative that routes around the WMA.

Recommendation: TPWD strongly discourages project alternatives that cross TPWD-owned or managed properties unless that alternative creates the least amount of adverse impacts to the state's fish and wildlife resources and meets the

requirement of Parks and Wildlife Code Chapter 26 and Section 4(f) of the USDOT Act. TPWD recommends avoiding these areas and routing around TPWD-owned or managed properties. If the proposed project could result in impacts to a TPWD WMA, close coordination would be needed with Dennis Gissell at (512) 389-4407. If a proposed project has the potential to impact a State Park, close coordination would be needed with David Riskind at (512) 389-4897.

Chapter 4.0, regarding Section 4(f) and Section 6(f) resources, identifies state parks that occur within the corridor alternatives, but fails to identify TPWD WMAs as Section 4(f) resources. As previously mentioned, TPWD's review of the project corridor alternatives indicate that Ray Roberts WMA and Chaparral WMA occur within the corridor alternatives. 0138-19

Recommendation: Ray Roberts WMA and Chaparral WMA should be identified and assessed in Chapter 4.0 as Section 4(f) resources. As discussed above TPWD discourages project alternatives that cross TPWD-owned or managed properties and requires close coordination to identify avoidance and mitigation requirements.

TPWD appreciates the opportunity to provide input on the Service-Level DEIS for the Texas – Oklahoma Passenger Rail Study. TPWD advises review and implementation of these recommendations. If you have any questions, please contact me at (512) 389-8054 or Jessica.Schmerler@tpwd.texas.gov.

Sincerely,

Jessica E. Schmerler

Jessica E. Schmerler
Wildlife Habitat Assessment Program
Wildlife Division

JES:gg.36867

Attachment

Texas Natural Diversity Database

The Texas Natural Diversity Database (TXNDD), established in 1983, is the Texas Parks and Wildlife Department's (TPWD) most comprehensive source of information on rare, threatened, and endangered plants, animals, natural communities, and animal aggregations. The TXNDD is continually updated with information on statewide status and locations of these unique elements of natural diversity. However, the data are not complete, as there are gaps in coverage due to the lack of access to land or data and a lack of staff and resources to collect and process data on all rare and significant resources.

The TXNDD houses biological information from public information sources such as museum and herbarium collection records, peer-reviewed publications, experts in the scientific community, organizations, qualified individuals, and on-site field surveys conducted by TPWD staff on public lands or private lands with written permission. TPWD staff botanists, zoologists, and ecologists perform field surveys to locate and verify specific occurrences of high-priority biological elements and collect information on their condition, quality, and management needs.

The TXNDD can be used to help evaluate environmental impacts of routing and siting options for development projects, environmental review, and permit review as well as for natural resource management, scientific research, and educational applications. **Appropriate use of TXNDD data requires both interpretation and extrapolation because of the many data gaps across the state.** The current and historic lack of access to private lands and the restriction of only being able to distribute data from public data sources are two of the reasons for these data gaps. Other reasons include a skew in the available data toward listed and the rarest species as well as lack of precision in many secondary data sources.

Given the small proportion of public versus private land in Texas, the TXNDD does not include a representative inventory of rare resources in the state. Although it is based on the best data available to TPWD regarding rare species, these data cannot provide a definitive statement as to the presence, absence, or condition of special species, natural communities, or other significant features in any area. Nor can these data substitute for on-site evaluation by qualified biologists. The TXNDD information is intended to assist users in avoiding harm to rare species or significant ecological features. Refer all requests back to the TXNDD to obtain the most current information.

Contact:
TXNDD Administrator phone: (512) 389-8744
TXNDD Email: TexasNatural.DiversityDatabase@tpwd.texas.gov.

Shapefile Data Interpretation and Use

In our database, every element occurrence (EO) is represented geographically as a polygon. This polygon is a combination of the geographic location of the reported observation and the locational uncertainty of the observation for all elements of the same type within scientifically-determined separation distances.

Data Conversion from paper maps to a digital database

Historically, most of the data that were part of the original database was maintained geographically as points in latitude and longitude. Each point was one symbolized with either a circle, a triangle, or a square. These symbols represented the precision of the point occurrence: circles represented those records precise to seconds, the highest precision; triangles represented records precise to +/- 1 minute, the intermediate level of precision; and squares represented the least precise records and were used only when location description was especially vague.

When the database was converted to the new system (Biotics), the points were converted to polygons by applying an error buffer (*locational uncertainty*) to the point location based on the precision of that record. Records with seconds precision received a 100 m radius buffer; records with minutes precision received a 2,000 m radius buffer; and records with a general precision received an 8,000 m radius buffer. Thus, instead of point data, each record was now a polygon in which the imprecision and uncertainty of the data is graphically represented.

Alternatively, some of the data that were in the previous database was originally mapped as polygons with meaningful boundaries on paper topographic maps. In the conversion to the new database, each of these records was digitized as they were drawn as polygons using ArcGIS. Because the precision with which the boundaries of these records were initially mapped is unknown, each was given a 100 m radius buffer to achieve the final shape.

Current Mapping Methodology and Data Interpretation

When viewing the spatial data that have been provided in the shapefile, interpretation is not necessarily intuitive without an understanding of the current mapping methodology, which follows three general steps. First, an observation of an element is located on the map. Next, locational uncertainty is applied based on the precision with which the location information was collected, resulting in a *Source Feature*. At this point and/or after the last step (depending on when we receive/enter data), data obtained regarding the same element in the same location can be added to a source feature. Thus, each source feature can represent one or many observations over time. Finally, these source features are combined with other source features of the same element based on a scientifically-determined separation barriers and separation distance to create Element Occurrences (EOs). If two source features are within this distance, they become part of the same EO; if not, they become separate EOs. For this reason, you will see both single and multi-

polygon EOs in the data, which results in a better representation of that species in a specific area. Factors constituting *separation barriers* as well as the *separation distances* used to determine if an observation should be part of an existing EO or a new one can be found as part of the species information on the NatureServe Explorer web site (http://www.natureserve.org/explorer/).

Source features, then, can be interpreted as the smallest area that can be drawn in which we are confident the observed element was located. We cannot be certain where within that area the element was observed, but we have high confidence that it was somewhere within that area on the observation date(s). An EO, when complete, is a representation of a population of that element. However, due to the large amount of private land and other constraints to monitoring and surveying, **an absence of information on the map should not be interpreted as an absence of rare, threatened, or endangered species in that location**. These data cannot provide a definitive statement as to the presence, absence, or condition of species, natural communities, or other significant features in any area. Nor can these data substitute for on-site evaluation by qualified biologists. **The** Texas Wildlife Diversity Database **information is intended to assist users in avoiding harm to rare species or significant ecological features.**

Refer all requests for data or maps back to the Texas Natural Diversity Database to obtain the most current information. **The Texas Natural Diversity Database is a dynamic database that changes almost daily.** You are encouraged to request updates to data at least quarterly for ongoing long-term projects.

If you have any questions about use or interpretation of the data please call the TXNDD Administrator (contact information above).

Shapefile Export Attribute Explanations

Some attributes are exported automatically by the system, but do not provide any additional information about the EO. The following list includes fields relevant to most uses of TXNDD data and their descriptions. For questions regarding the remaining fields exported with the shapefile, contact the TXNDD Administrator (contact information above).

- EO_ID – Unique number automatically assigned by the TXNDD to the EO. If you have questions regarding a particular feature, use this number in any correspondence with the TXNDD to identify the feature in question.
- ELCODE – Unique code assigned to the particular taxon associated with this EO.
- SNAME – Subnational Scientific Name; Scientific name used in the state of Texas for the element.
- SCOMNAME – Subnational Common Name; Common name used in the state of Texas for the element.
- GNAME – Global Scientific Name; Scientific name used by the central NatureServe database for the element.
- GCOMMNAME – Global Common Name; Common name used by the central NatureServe database for the element.
- EST_REP_ACC – Estimated Representation Accuracy; a qualitative classification that indicates the accuracy associated with an Element Occurrence. It varies based on the area occupied by the observed Element relative to the area within the footprint of the EO. The field can be null. There is no default value.
- Y – Latitude of occurrence record point, or polygon link point located in the centroid of the polygon.
- X – Longitude of occurrence record point, or polygon link point located in the centroid of the polygon.
- BASIC_EO_R – EO Rank; indicates the estimated viability (species) or ecological integrity (community) of an EO, *i.e.*, the likelihood of persistence. EO Ranks provide an assessment of the likelihood that, if current conditions prevail, the occurrence will persist for a defined period of time, typically 20-100 years. The field can be null. There is no default value.
- NAME_CAT_1 – Name Category; broad biological label for the Element to which the Scientific Name applies. The field cannot be null. There is no default value.
- GRANK – Global Conservation Status Rank; rank for the Element's entire global range; factors together abundance, total range size, distribution, trends, threats, fragility, and number of adequately protected occurrences within global range. See table below for specific ranks. The field cannot be null. There is no default value.

- SRANK – State Conservation Status Rank; rank for the Element's state range; factors together abundance, state range size, distribution, trends, threats, fragility, and number of adequately protected occurrences within state range. See table below for specific ranks. The field cannot be null. The default value is 'SNR' (unranked).
- LAST_OBS_D – Last Observation Date; date a particular Element was last observed in the particular area of the EO as noted in the Reference(s); **refers only to species occurrence as noted in a reference and does not imply the last date the species was present.** The default value is null.
- SEPARATION – Separation Distance Comments; comments relating to the separation/combination of EOs if the default separation distances were not used to determine EOs. The field can be null. There is no default value.
- NEW_EO_REA – New EO Reason; comments relating to justification for creating a new EO from a source feature when the default separation distance would indicate that it should be part of an existing EO. Possible reasons include the presence of a separation barrier or a large difference in representation accuracy. The field can be null. There is no default value.

Code Key for Printouts from

This information is for your assistance only; due to continuing data updates, vulnerability of private land to trespass and of species to disturbance or collection, **please refer all requesters to our office to obtain the most current information available.** Also, please note, identification of a species in a given area does not necessarily mean the species currently exists at the point or area indicated.

LEGAL STATUS AND CONSERVATION RANKS

FEDERAL STATUS (as determined by the US Fish and Wildlife Service)

LE	Listed Endangered
LT	Listed Threatened
PE	Proposed to be listed Endangered
PT	Proposed to be listed Threatened
PDL	Proposed to be Delisted (Note: Listing status retained while proposed)
SAE, SAT	Listed Endangered on basis of Similarity of Appearance, Listed Threatened on basis of Similarity of Appearance
DL	Delisted Endangered/Threatened
C	Candidate. USFWS has substantial information on biological vulnerability and threats to support proposing to list as threatened or endangered. Data are being gathered on habitat needs and/or critical habitat designations.
C*	C, but lacking known occurrences
C**	C, but lacking known occurrences, except in captivity/cultivation
XE	Essential Experimental Population
XN	Non-essential Experimental Population
Blank	Species is not federally listed

TX PROTECTION (as determined by the Texas Parks and Wildlife Department)

E	Listed Endangered
T	Listed Threatened
Blank	Species not state-listed

GLOBAL RANK (as determined by NatureServe)

G1	Critically imperiled globally, extremely rare, typically 5 or fewer viable occurrences
G2	Imperiled globally, very rare, typically 6 to 20 viable occurrences
G3	Very rare and local throughout range or found locally in restricted range, typically 21 to 100 viable occurrences
G4	Apparently secure globally
G5	Demonstrably secure globally
GH	Of historical occurrence through its range
GU	Possibly in peril range-wide, but status uncertain
G#G#	Ranked within a range as status uncertain
GX	Apparently extinct throughout range
Q	Rank qualifier denoting taxonomic assignment is questionable
#?	Rank qualifier denoting uncertain rank
C	In captivity or cultivation only
G#T#	"G" refers to species rank; "T" refers to variety or subspecies rank

STATE (SUBNATIONAL) RANK (as determined by the Texas Parks and Wildlife Department)

S1	Critically imperiled in state, extremely rare, vulnerable to extirpation, typically 5 or fewer viable occurrences
S2	Imperiled in state, very rare, vulnerable to extirpation, typically 6 to 20 viable occurrences
S3	Rare or uncommon in state, typically 21 to 100 viable occurrences
S4	Apparently secure in State
S5	Demonstrably secure in State
S#S#	Ranked within a range as status uncertain
SH	Of historical occurrence in state and may be rediscovered
SU	Unrankable – due to lack of information or substantially conflicting information
SX	Apparently extirpated from State
SNR	Unranked – State status not yet assessed
SNA	Not applicable – species id not a suitable target for conservation activities
?	Rank qualifier denoting uncertain rank in State

ELEMENT OCCURRENCE RECORD

Element Occurrence Record (EO) Spatial and tabular record of an area of land and/or water in which a species, natural community, or other significant feature of natural diversity is, or was, present and associated information; may be a single contiguous area or may be comprised of discrete patches or subpopulations

Occurrence # Unique number assigned to each occurrence of each element when added to the TXNDD

LOCATION INFORMATION

Directions Directions to geographic location where occurrence was observed, as described by observer or in source

SURVEY INFORMATION

First/Last Observation Date a particular occurrence was first/last observed; refers only to species occurrence as noted in source and does not imply the first/last date the species was present

Survey Date Last date of survey. If the survey date and last observation date are the same, this indicates that the last time someone visited the EO and surveyed for the element and reported to us, the element was observed. If the survey date is later than the last observation date, this indicates that the last time that someone visited the EO to survey for the element and reported to us, the element was not observed.

EO Type State rank/EO rank qualifiers:

M	Migrant – species occurring regularly on migration at staging areas, or concentration along particular corridors; status refers to the transient population in the State
B	Qualifier indicating basic rank refers to the breeding population in State
N	Qualifier indicating basic rank refers to the non-breeding population in State

EO Rank

A	Excellent	**AI**	Excellent, Introduced
B	Good	**BI**	Good, Introduced
C	Marginal	**CI**	Marginal, Introduced
D	Poor	**DI**	Poor, Introduced
E	Extant/Present	**EI**	Extant, Introduced
H	Historical/No Field Information	**HI**	Historical, Introduced
X	Destroyed/Extirpated	**XI**	Destroyed, Introduced
O	Obscure	**OI**	Obscure, Introduced

EO Rank Date Latest date EO rank was determined or revised

Observed Area Acres, unless indicated otherwise

COMMENTS

General Description General physical description of area and habitat where occurrence is located, including associated species, soils, geology, and surrounding land use

Comments Comments concerning the quality or condition of the element occurrence at time of survey

Protection Comments Observer comments concerning legal protection of the occurrence

Management Comments Observer comments concerning management recommendations appropriate for occurrence conservation

DATA

EO Data Biological data; may include number of individuals, vigor, flowering/fruiting data, nest success, behaviors observed, or unusual characteristic, etc.

COMMUNITY INFORMATION

Stratum Stratum (or strata) in which the elements composing the community occurs within the specified geographic level (i.e., range-wide for global, within-state or province for subnational), *i.e.*, shrubland, herbaceous vegetation, woodland

Dominant Dominant element in the community as defined by the most abundant in terms of percent cover

Lifeform Type of lifeform of the elements composing the community, *i.e.*, tree, shrub, herbaceous, nonvascular, other)

Composition Note Notes regarding the community

Please use one of the following citations to credit the source for the printout information:

Texas Natural Diversity Database. [year of data export]. Element Occurrence data export. Wildlife Diversity Program of Texas Parks & Wildlife Department. [day month year of export].

Submittal 0139 (Karl Ziebarth, August 26, 2016)

From: [redacted]
To: Mark Werner
Subject: Public Comment on Texas Oklahoma Passenger Rail Study
Date: Friday, August 26, 2016 7:25:03 PM

To: Mr. Mark Werner
Rail Division
Texas Department of Transportation

I am now a professional transportation consultant, dealing with surface transportation companies. Have lived in North Texas for 45 years, and watched the population and commercial activity explode. The I-35 corridor, is the most heavily traveled main pathway linking three major population regions of Texas, and due to the rapid growth of residential and commercial + manufacturing activity along I-35, does not lend itself to building more roads or expanding existing highways with additional lanes. Land acquisition costs become prohibitive, and you are taking tax paying real property off the tax rolls.

Future growth in our state will require a robust passenger rail system to serve not only the main population centers with fast, frequent and dependable rail service but to also help link growing intermediate towns and cities into a statewide network. **0139-01**

The Draft EIS presented by the Texas Department of Transportation, outlined options for developing passenger rail service within this 655-mile long corridor. It is a solid and thoughtful summary. **0139-02**

As a practical matter there are few, if any, acceptable parallel roads that can be utilized to move a large number of people at rush hours. The worst congestion is between Austin and San Antonio. Sensible higher speed (not high speed) passenger rail can add that capacity with the smallest environmental impact. **0139-03** Even more important is the effective use of scarce transportation dollars – rail must be considered in light of the very real budgetary constraints the Department and the State face. **0139-04**

I encourage all stakeholders from the cities and counties within the study area to continue to push for sensible development. The Lone Star Corridor project was, unfortunately, misguided in its approach, and came up with something that was not cost-effective. There are much less expensive alternatives available which should be explored. I would be happy to assist in this; by way of background, I was for many years Executive Vice-President of the Missouri-Kansas-Texas (Katy) Railroad, and know the territory intimately

Our State legislature must take the lead in finding cost effective solutions to the looming transportation challenges that we face. Public investment in passenger rail is justified from the perspective of conserving public funds, using public-private partnerships where possible. **0139-05** The State and the Department should actively support private companies seeking to develop true high speed rail service as well.

Passenger rail development in the I-35 corridor has been ignored for too long; the Department's hearings are a significant first step toward developing practical and cost effective solutions. I hope the Final EIS, Record of Decision will support the rail option.

Submitted by
Karl Ziebarth, President
Ziebarth & Associates, Inc.
Transportation and Financial Consultants
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[redacted]

Director, Texas Rail Advocates

Submittal 0140 (Michael Morris, August 27, 2016)

From: Kevin Feldt
To: Mark Werner
Cc: Sandy Wesch; Dan Lamers
Subject: NCTCOG TOPRS Draft EIS Comments
Date: Friday, August 26, 2016 3:58:50 PM
Attachments: image001.jpg
image002.jpg
image003.jpg
NCTCOG TOPRS Comment Letter_Aug 2016.pdf

Mark,

Please find attached the NCTCOG comments regarding the Texas-Oklahoma Passenger Rail Study Service-Level Draft Environmental Impact Statement. The originals will follow via US Mail. Please let me know if there are any questions.

Kevin Feldt, AICP
Program Manager
North Central Texas Council of Governments
Office: 817.704.2529
Mobile: 214.325.0432
Email: [redacted]

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North Central Texas Council Of Governments

August 27, 2016

Mr. Mark Werner
Rail Planning Section Manager
Texas Department of Transportation - Rail Division
125 E. 11th Street
Austin, TX 78704

Dear Mr. Werner:

Congratulations on achieving this milestone in the development of high-speed passenger rail in Texas. The North Central Texas Council of Governments (NCTCOG) supports implementing a high-speed passenger rail service within and approaching the Dallas-Fort Worth region. Connectivity to other planned high-speed passenger rail services and other transit modes within the Dallas-Fort Worth region will be important to the success of a high-speed rail system. As such, the NCTCOG encourages the formulation of a recommended alternative to be flexible regarding connection to planned high-speed rail service from Dallas to Houston and planned high-speed rail service from Fort Worth to Dallas. 0140-01 0140-02

NCTCOG staff has reviewed the Texas-Oklahoma Passenger Rail Study (TOPRS) Corridor, South Texas to Oklahoma City – Service Level (Tier 1) Draft Environmental Impact Statement (DEIS) dated July 2016, and offer the attached comments. In general, the preferred alignment alternatives recommended for additional analysis are not consistent with the adopted *Mobility 2040: The Metropolitan Transportation Plan for North Central Texas* and are not consistent with the "Three Station" and "One Seat Ride" policies adopted by the Regional Transportation Council for high-speed rail in the Dallas-Fort Worth region. 0140-03

I strongly encourage you to continue with development of high-speed passenger rail service in Texas. NCTCOG staff will continue to provide any information or services necessary to support this effort in the Dallas-Fort Worth region. 0140-04

Sincerely,

Michael Morris, P.E.
Director of Transportation

SW:jh
Attachments

cc: The Honorable Rob Franke, Chair, Multimodal/Intermodal/High-Speed Rail/Freight Subcommittee, Regional Transportation Council and Mayor, Cedar Hill
Kevin Feldt, Program Manager, NCTCOG
Sandy Wesch, P.E., Project Engineer, NCTCOG

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NCTCOG Comments on the July 2016 Texas-Oklahoma Passenger Rail Study Corridor, South Texas to Oklahoma City – Service Level (Tier 1) Draft Environmental Impact Statement		
Comment	**Section or Page**	
1. The recommended alternatives included in the DEIS are not consistent with Mobility 2040. The document needs to be revised to reflect and acknowledge the current policies and high-speed rail efforts in the Dallas-Fort Worth region. Mobility 2040 [the approved regional metropolitan transportation plan (MTP)] includes two policies regarding high-speed rail projects within the region. The MTP states high-speed rail should incorporate a "one seat ride" concept of interoperability within the region, and three stations are identified in downtown Fort Worth, Arlington and downtown Dallas. Alignments approved in the plan include publicly-funded service to Fort Worth from the south and from Fort Worth to Dallas eastward along IH-30 to Arlington, north generally along SH 360 to the Trinity Railway Express (TRE) corridor and eastward to Dallas along the TRE corridor. The high-speed rail alignment from the south to Dallas is privately funded.	General	0140-05
2. *The DEIS and Tier 1 study process does not adequately recognize the interdependence and need for coordinating with the other high-speed rail environmental documents that are currently being developed. The document appears to be in conflict with the planning and environmental efforts underway for the DFW High-Speed Rail Core Express Service between Dallas and Fort Worth.*	General	
3. High-speed rail in the Dallas-Fort Worth region has been a topic of discussion at many NCTCOG policy and committee meetings. Attachment 1 is a listing of meetings held at NCTCOG since February 2014.	General	
4. There is no mention of the Core Express Service DEIS, Mobility 2040, or NCTCOG in the section titled "Related Planning Activities." Attachment 2 includes relevant pages from Mobility 2040.	1.2.3	
5. Please provide more explanation on the cost-efficient investment objective. What is the source of the operating cost to revenue percentages for the different speeds? Was this built into the CONNECT model or is this set by FRA or is it industry averages? What is the planning horizon?	1.3.1, page 1-8, last bullet	0140-06
6. Please add Regional Transportation Council (RTC) policies pertaining to high-speed rail.	1.5.1	0140-07
7. The word "capitol" should be changed to "capital." Populations for Dallas and Fort Worth should be updated to 2015 estimates (best available information) and should include the entire Dallas-Fort Worth region.	1.5.2.1, page 1-20	0140-08
8. Data should be revised to year 2015 data (best available information).	1.5.2.2, Table 1-3	
9. NCTCOG has indicated a preference for an alignment within or along the IH-30 corridor from IH-35W to SH 360 and supports utilizing the existing IH-30 highway right-of-way to the maximum extent possible. However, NCTCOG did not reserve space on the IH-30 corridor for an elevated high-speed rail alignment. Additionally, the Fort Worth to Dallas high-speed rail alignment should be changed to reflect the alignment options in the Core Express Service DEIS.	2.1.1, page 2-5, last paragraph	0140-09
10. Screening criteria should include criteria indicating consistency with approved regional planning documents such as Mobility 2040.	2.1.2, Table 2-2	0140-10
11. Alternative C4C is not listed.	2.1.2, Table 2-3	0140-11

NCTCOG Comments on the July 2016 Texas-Oklahoma Passenger Rail Study Corridor, South Texas to Oklahoma City – Service Level (Tier 1) Draft Environmental Impact Statement		
Comment	**Section or Page**	
12. The data should be changed to reflect the data in Mobility 2040. These tables misrepresent the roadway projects in the NCTCOG region by showing "New HOV" projects. There are no new high occupancy vehicle (HOV) lanes proposed in the Dallas-Fort Worth region. Managed lanes are not the same as HOV lanes.	2.2.1, Tables 2-4, 2-5, 2-6	**0140-12**
13. The Core Express Service DEIS should be discussed in this section.	2.2.1	
14. Information should be revised to include Mobility 2040, which was adopted in March 2016.	2.2.2, Table 2-7	
15. Information shows the proposed passenger rail lines only. This information should be revised to include the adopted Mobility 2040 Plan. Additionally, the existing commuter (TRE, A-Train) and light rail lines (90 miles) are not shown.	2.2.2, Figure 2-4	
16. Alternative C4A is not consistent with Mobility 2040.	2.3.2.2.1	**0140-13**
17. Alternative C4B is not consistent with Mobility 2040.	2.3.2.2.2	
18. Alternative C4C is not consistent with Mobility 2040.	2.3.2.2.3	
19. Where can the referenced document "Texas-Oklahoma Passenger Rails Study EIS-Phase Business and Financial Plan" be found? Operating cost to revenue is a key factor in the selection of the alternates. Assumptions on revenue are not found in the main text.	2.3.3.2	**0140-14**
20. Preferred alternatives are not consistent with Mobility 2040.	2.3.3.4	**0140-15**
21. Dallas-Fort Worth is listed in the Central Section. However, the text discusses Dallas-Fort Worth in the northern section and impacts in the central section. Be consistent with which section to discuss Dallas-Fort Worth and change as appropriate throughout the chapter/document.	3.1.3.1, Table 3-1-2	**0140-16**
22. Remove "- Arlington Basin" from the Air Basin Region. TCEQ/EPA does not refer to the Dallas-Fort Worth region as this, only as "Dallas-Fort Worth."	3.1.3.1, Table 3-1-2	**0140-17**
23. Add the following counties to the list of the Dallas-Fort Worth air quality counties: Kaufman, Parker, Navarro, Rockwall, and Wise. Additionally Collin County is misspelled, removed the "s" at the end.	3.1.3.1, Table 3-1-2	**0140-18**
24. Add the following attainment status: Dallas, Ellis, Kaufman, and Navarro counties: Governor's Recommendation: Attainment, sulfur dioxide (2010 standard). This is not classified as the remainder "Unclassifiable/ Attainment" status category it was placed in.	3.1.3.1, Table 3-1-2	**0140-19**
25. Add the following counties to the first sentence that are in nonattainment for ozone: Collin, Kaufman, Parker, Rockwall, and Wise.	3.1.3.2, page 3-1-12, 3rd paragraph	**0140-20**
26. Discuss the current proposed Redesignation Request and Maintenance Plan State Implementation Plan Revision for Collin County's lead nonattainment.	3.1.3.2, page 3-1-12, 5th paragraph	**0140-21**
27. A review of the U.S. Energy Information Administration data (both 2014 and 2016) shows a significantly greater proportion of electricity production for Texas and Oklahoma as natural gas (>50%), not coal. Please revise.	3.1.4.1.2, page 3.1-15, 4th paragraph	**0140-22**
28. This alignment passes through the Dallas-Fort Worth nonattainment region. Add text similar to the Central Section portion on nonattainment.	3.1.4.3.1, page 3.1-19, 1st paragraph	**0140-23**

NCTCOG Comments on the July 2016 Texas-Oklahoma Passenger Rail Study Corridor, South Texas to Oklahoma City – Service Level (Tier 1) Draft Environmental Impact Statement		
Comment	**Section or Page**	
29. *For the Final EIS, please update this section to reflect the finalized Green House Gas (GHG) guidance released August 1, 2016; update other GHG Sections in 3.1 as applicable.*	3.1.1.1	**0140-24**
30. Noise and vibration is absent from the discussions on potential socioeconomic impacts. Add a reference to Section 3.3 and acknowledge the impacts on the community.	3.15.5	**0140-25**
31. Economic impacts to farming operations are not discussed. The document does state that areas that are rural would not receive economic impacts. However, farming operations could be impacted by the project if the alignment limits and/or prevents the movement of farm equipment and livestock.	3.15.5	**0140-26**
32. Year 2000 and 2010 populations should be based on the U.S. Census. Please update to the correct numbers or reference the U.S. Census Bureau 2000/2010 as a source.	3.15.4.1, Table 3.15-1	**0140-27**
33. Change all references (in tables and text) from "handicapped" to "disabled populations."	3.15.4.2.1	**0140-28**
34. Under Regional Economy and Employment Characteristics for all sections, no data or source is provided to support the statements that unemployment was higher in 2010 because of the recession.	3.15.4.2.3, 3.15.4.3.3	**0140-29**
35. State that construction jobs would only be temporary.	3.15.5.1	**0140-30**
36. The No Build could still have impacts to minority and low income populations. Lack of service and/or access to a new/better service could be an impact.	3.15.5.2	**0140-31**
37. This alternative could create potential socioeconomic and environmental justice impacts due to additional vibration and noise from increased, faster trains.	3.15.5.3.1	**0140-32**
38. The No Build alternative could have an impact to all communities and environmental justice populations. The absence of an improved passenger rail service can cause negative impacts.	3.15.5.6 Table 3.15-11 and 3.15-12	**0140-33**
39. The Dallas to Fort Worth segment of Alternative N4A Rail estimated riders is stated as 227,503 passengers/year using the TRE corridor. This seems low as the TRE is estimated to have approximately 5 million annual riders in the Mobility 2035 Plan.	3.20.4.3.1, Table 3.20-4	**0140-34**
40. For the central section, no build vehicle miles traveled (VMT) listed is not consistent between the alternatives. The no build alternative VMT should be the same for each comparison with an alternative.	3.20.4.4, Tables 3.20-9, 3.20-13, 3.20-18, 3.20-22, 3.20-26, 3.20-30	**0140-35**
41. Suggest using the average persons per household reported by the U.S. Census American Community Survey, which would be more accurate than the methodology used.	6.2, page 6-2, Item 4	**0140-36**
42. General - on most resources, the Northern Section is dismissed for minor or no cumulative impacts. Evaluation of the potential cumulative effects of stations and growth around these new stations needs to be added.	6.4	**0140-37**
43. Discuss the cumulative effects on the nonattainment status of the Dallas-Fort Worth region.	6.4.1, page 6-14	**0140-38**

NCTCOG Comments on the July 2016 Texas-Oklahoma Passenger Rail Study Corridor, South Texas to Oklahoma City – Service Level (Tier 1) Draft Environmental Impact Statement		
Comment	**Section or Page**	
44. The proposed alignment and potential stations, in addition to the known transportation projects, are within wetland areas in the Dallas-Fort Worth region. The document should state there are potential cumulative impacts to wetland areas.	6.4.5.2, page 6-21	**0140-39**
45. The alignments would pass through potential habitat for Black-Capped Vireo and Golden Cheeked Warbler. Additionally nesting pairs of Interior Least Terns have been documented around the proposed cumulative impact area and are known to nest in urbanized industrial locations in the Dallas-Fort Worth region. The document should state there are potential cumulative impacts to threatened and endangered species habitat.	6.4.6.2, page 6-23	**0140-40**
46. Under 12c, Alternative Analysis Criteria, change Louisville to Lewisville.	App C, page 4-7	**0140-41**
47. Update year 2035 data and text references to year 2040.	App L	**0140-42**
48. The methodology used to grow the demographics and travel markets (auto, air and bus) to the horizon year (2035) should be provided and updated to 2040.	Appendix L, 5.1.2.1.1	**0140-43**
49. Validation results of travel demand model should be provided.	App L	**0140-44**
50. Fare policy, train frequency and speed assumptions should be provided.	App L	**0140-45**

Regional Transportation Council, July 14, 2016

Follow Up to High Speed Rail Industry Forum
http://www.nctcog.org/trans/committees/rtc/documents/web.agenda.rtc071416.pdf
A High Speed Rail Industry Forum was held on Monday, June 20 at the North Central Texas Council of Governments (NCTCOG) with firms potentially interested in proposing a high speed rail project in the Dallas-Fort Worth region. This meeting was in response to a Federal Railroad Administration and United States Department of Transportation request for proposals. Information on regional plans and policies, status of environmental documents, and available data were presented at the forum. Background: The Federal Railroad Administration published a Request for Proposals in the March 9, 2016, Federal Register seeking proposers to finance, design, construct, operate, and maintain a high speed rail system. NCTCOG staff will continue to coordinate with prospective proposers to ensure regional transportation goals and objectives are met. The Regional Transportation Council (RTC) has adopted regional policies guiding high speed rail implementation and development within the Dallas-Fort Worth region. Currently, three separate projects designed to serve the region are ongoing. NCTCOG staff continues to coordinate with project partners to ensure the efforts are consistent with the adopted RTC High Speed Rail Policies and with all transportation partners, consultants, and the public to ensure successful high speed rail service implementation. NCTCOG staff will continue to serve as the RTC liaison for regional high speed rail efforts and will provide periodic updates on each proposed project.

Regional Transportation Council, June 16, 2016

Multimodal/Intermodal/High-Speed Rail/Freight Subcommittee Meeting
http://www.nctcog.org/trans/committees/rtc/documents/RTCSubcommitteeAgenda6-16-16v3.pdf

High-Speed Rail Texas Central Partners Memorandum of Understanding
http://www.nctcog.org/trans/committees/rtc/documents/web.agenda.rtc061616.pdf
Staff will provide an overview for a proposed Memorandum of Understanding (MOU) between Texas Central Partners (TCP) and various local government entities, including the Regional Transportation Council (RTC). The discussion will include recommendations from the Multimodal/Intermodal/High-Speed Rail/Freight Subcommittee. Background: The proposed resolution and MOU between TCP and the RTC is provided as Reference Item 5 for the Council's consideration. North Central Texas Council of Governments (NCTCOG) staff continues to coordinate with project partners to ensure the efforts are consistent with all adopted RTC high-speed rail policies and with all transportation partners, consultants, and the public to ensure successful high-speed rail service implementation. The proposed MOU would allow NCTCOG and TCP staffs to continue supporting all high-speed rail projects in North Texas. The proposed MOU will adhere to the descriptive core messages of each entity: verbal and written support for each project, support for planning an interconnected high-speed rail system, and support for separate but complimentary projects. NCTCOG staff will continue to serve as the RTC liaison for regional high-speed rail efforts.

Upcoming High-Speed Rail Industry Forum, June 20, 2016
http://www.nctcog.org/trans/committees/rtc/documents/web.agenda.rtc061616.pdf
An industry forum will be held on Monday, June 20, 2016, from 1:30-3:30 pm with firms potentially interested in proposing a high-speed rail project in the Dallas-Fort Worth region. This meeting is in response to the Federal Railroad Administration (FRA) and United States Department of Transportation (US DOT) through a request for proposals. Information on regional plans and policies, status of environmental documents, and data available will be presented at the forum. Electronic Item 9 is an invitation letter to the industry forum. Background: On March 16, 2016, the FRA and the US DOT issued a notice of request for proposals for projects for the financing, design, construction, operation, and maintenance of a high-speed passenger rail system operating within a high-speed rail corridor. The Dallas-Fort Worth region has been working for several years to bring high-speed rail to, from, and within the region. The Federal Register notice presents an opportunity for the private sector to bring innovation and experience from across the globe to advance high-speed rail in this region or others throughout the country.

Surface Transportation Technical Committee, Friday, May 27, 2016

High-Speed Rail Texas Central Partners Memorandum of Understanding
http://www.nctcog.org/trans/committees/sttc/documents/web.agenda_al_sttc052716.pdf
Staff will provide an overview and request approval of a proposed Memorandum of Understanding (MOU) between Texas Central Partners (TCP) and various local government entities, including the Regional Transportation Council (RTC). Staff will request Committee members to provide guidance to the RTC. Background: The proposed MOU between TCP and the RTC is provided as Reference Item 5 for the Committee's consideration. North Central Texas Council of Governments (NCTCOG) staff continues to coordinate with project partners to ensure the efforts are consistent with all adopted RTC high-speed rail plans/policies. The proposed MOU would allow NCTCOG staff and TCP staff to continue supporting all high-speed rail projects in North Texas. The proposed MOU will adhere to the descriptive core messages of each entity; verbal and written support for each project, support for planning an interconnected high-speed rail system, and support separate but complimentary projects. NCTCOG staff will continue to serve as the RTC liaison for regional high-speed rail efforts.

Surface Transportation Technical Committee, Friday, April 22, 2016

High-Speed Rail Update/Federal Notice of Funding Availability
http://www.nctcog.org/trans/committees/sttc/documents/web.agenda_al_sttc042216.pdf
Staff will provide an update of recent progress regarding high speed rail initiatives for the Dallas-Fort Worth region, including staff efforts to advance the initiatives. Background: The Regional Transportation Council (RTC) has adopted a new Mobility 2040 and a regional policy guiding the development of high-speed rail implementation within the Dallas-Fort Worth region. Currently, three separate projects designed to serve the region are ongoing. They are: 1) Houston to Dallas, 2) Dallas-Arlington-Fort Worth, and 3) Fort Worth-Austin-San Antonio. North Central Texas Council of Governments (NCTCOG) staff continues to coordinate with project partners to ensure the efforts are consistent with the adopted RTC High-Speed Rail Policy and with all transportation partners, consultants, and the public to ensure successful high-speed rail service implementation. NCTCOG staff will continue to serve as the RTC liaison for regional high-speed rail efforts. Staff will provide updates on each project proposed within the Dallas-Fort

Worth region, including proposed staff efforts to respond to the Federal Railroad Administration Request for Proposals published in the March 9, 2016, Federal Register seeking proposers to finance, design, construct, operate, and maintain a high-speed rail system.

Regional Transportation Council, Thursday, April 14, 2016

High-Speed Rail Update/Federal Notice of Funding Availability
http://www.nctcog.org/trans/committees/rtc/documents/web.agenda.rtc041416.pdf
Staff will provide an update of recent progress regarding high speed rail initiatives for the Dallas-Fort Worth region, including staff efforts to advance the initiatives. Background: The Regional Transportation Council (RTC) has adopted a new Mobility 2040 and a regional policy guiding the development of high-speed rail implementation within the Dallas-Fort Worth region. Currently, three separate projects designed to serve the region are ongoing. They are: 1) Houston to Dallas, 2) Dallas Arlington-Fort Worth, and 3) Fort Worth-Austin-San Antonio. North Central Texas Council of Governments (NCTCOG) staff continues to coordinate with project partners to ensure the efforts are consistent with the adopted RTC High-Speed Rail Policy and with all transportation partners, consultants, and the public to ensure successful high-speed rail service implementation. NCTCOG staff will continue to serve as the RTC liaison for regional high-speed rail efforts. Staff will provide updates on each project proposed within the Dallas-Fort Worth region, including proposed staff efforts to respond to the Federal Railroad Administration Request for Proposals published in the March 9, 2016, Federal Register seeking proposers to finance, design, construct, operate, and maintain a high-speed rail system.

Regional Transportation Council, December 10, 2015

Multimodal/Intermodal/High Speed Rail/Freight Subcommittee
http://www.nctcog.org/trans/committees/rtc/documents/RTCHSRAgenda12-10-15v3.pdf

Multimodal/Intermodal/High-Speed Rail/Freight Subcommittee Follow-Up: Dallas-Fort Worth Region High-Speed Rail Initiatives Update
http://www.nctcog.org/trans/committees/rtc/documents/web.agenda.rtc121015.pdf
An overview of the Regional Transportation Council (RTC) Multimodal/Intermodal/High-Speed Rail/Freight Subcommittee meeting will be presented. Background: An RTC Multimodal/Intermodal/High-Speed Rail/Freight Subcommittee meeting is scheduled prior to the RTC meeting. Electronic Item 9 is the Subcommittee's meeting agenda.

Surface Transportation Technical Committee, Friday, December 4, 2015

High-Speed Rail Update
http://www.nctcog.org/trans/committees/sttc/documents/web.agenda.sttc120415.pdf
Staff will provide an update of recent progress regarding high speed rail initiatives for the Dallas-Fort Worth region and staff actions to advance the initiatives. Background: The Regional Transportation Council (RTC) has adopted a regional policy guiding the development of high-speed rail implementation within the Dallas-Fort Worth region. Currently, three separate projects designed to serve the region are ongoing. North Central Texas Council of Governments (NCTCOG) staff continues to coordinate with project partners to ensure efforts are consistent with the adopted RTC High Speed Rail Policy and with all transportation partners, consultants, and the public to ensure successful high-speed rail service implementation. NCTCOG staff will continue to serve as the Committee liaison for regional high-speed rail efforts.

Regional Transportation Council, Thursday, October 8, 2015

Dallas-Fort Worth Region High-Speed Rail Initiatives Update: Mobility 2040
http://www.nctcog.org/trans/committees/rtc/documents/web.agenda.rtc100815.pdf
Staff will provide an update of recent progress regarding high speed rail initiatives for the Dallas-Fort Worth region, including staff efforts to advance the initiatives. Background: The Regional Transportation Council (RTC) has adopted a regional policy guiding the development of high-speed rail implementation within the Dallas-Fort Worth region. Currently, three separate projects designed to serve the region are ongoing. North Central Texas Council of Governments (NCTCOG) staff continues to coordinate with project partners to ensure that efforts are consistent with the adopted RTC High Speed Rail Policy and with all transportation partners, consultants, and the public to ensure successful high-speed rail service implementation. NCTCOG staff will continue to serve as the RTC liaison for regional high-speed rail efforts.

Surface Transportation Technical Committee, May 22, 2015

Dallas-Fort Worth Region High-Speed Rail Initiatives Update
http://www.nctcog.org/trans/committees/sttc/documents/web.agenda.sttc052215.pdf
Staff will provide an update on recent progress regarding high speed rail initiatives for the Dallas-Fort Worth region and staff actions to advance the initiatives. Background: The Regional Transportation Council (RTC) has adopted a regional policy guiding the development of high-speed rail implementation within the Dallas-Fort Worth region. Currently, three separate projects designed to serve the region are ongoing. North Central Texas Council of Governments (NCTCOG) staff continues to coordinate with project partners to ensure the efforts are consistent with the adopted RTC High-Speed Rail Policy and with all transportation partners, consultants, and the public to ensure successful high-speed rail service implementation. NCTCOG staff will continue to serve as the Surface Transportation Technical Committee liaison for regional high-speed rail efforts.

Regional Transportation Council, May 14, 2015

RTC Multimodal/Intermodal/High-Speed Rail/Freight Subcommittee
http://www.nctcog.org/trans/committees/rtc/documents/RTC.HSR.Agenda.051415.final.pdf

Regional Transportation Council, Thursday, November 13, 2014

Multimodal/Intermodal/High-Speed Rail/Freight Subcommittee
http://www.nctcog.org/trans/committees/rtc/documents/RTC.Subcommittee.agenda.rtc111314.pdf

Multimodal/Intermodal/High-Speed Rail/Freight Subcommittee Meeting Follow Up
http://www.nctcog.org/trans/committees/rtc/documents/web.agenda.rtc111314.pdf
An overview of the Regional Transportation Council (RTC) Multimodal/Intermodal/High-Speed Rail/Freight Subcommittee meeting will be presented. Background: An RTC Multimodal/Intermodal/High-Speed Rail/Freight Subcommittee is scheduled prior to the RTC meeting. Representatives will present recent progress on the Dallas Houston High-Speed Rail Environmental Impact Statement (EIS), as well as intercity passenger rail opportunities including the Dallas-Fort Worth High-Speed Rail EIS and the Texas Oklahoma Passenger Rail Study.

Regional Transportation Council, April 10, 2014

Multimodal/Intermodal/High Speed Rail/Freight Subcommittee
http://www.nctcog.org/trans/committees/rtc/RTC.HighSpeedRailCommitteeAgenda.Final041014.pdf

Multimodal/Intermodal/High Speed Rail/Freight Subcommittee Meeting Follow Up
http://www.nctcog.org/trans/committees/rtc/web.agenda.rtc041014.pdf
An overview of the Regional Transportation Council (RTC) Multimodal/Intermodal/High Speed Rail/Freight Subcommittee meeting that was held prior to the RTC meeting will be presented. Background: Electronic Item 12 contains the Texas Transportation Commission-appointed membership for the Commission for High-Speed Rail in the Dallas/Fort Worth Region.

Regional Transportation Council, February 13, 2014

Grade-Separated High Speed Rail Update
http://www.nctcog.org/trans/committees/rtc/web.agenda.rtc021314.pdf
Staff will provide an update regarding the grade-separated, high speed rail portion of Mobility 2035. Background: Mobility 2035: The Metropolitan Transportation Plan for North Central Texas-2013 Update defines grade-separated, high speed rail service for the North Texas region using the “3 station concept” serving downtown Dallas, Arlington-D/FW Airport, and downtown Fort Worth. Electronic Item 8.1 contains a copy of the recent Texas Department of Transportation Commission Minute Order. Electronic Item 8.2 contains a draft organizational chart explaining the path forward in building seamless grade separated, high speed rail from downtown Fort Worth to Houston.

The Importance of Regional Aviation Planning

As the nation's largest inland port and its fourth-largest metropolitan area, North Central Texas relies heavily on aviation facilities to sustain growth and economic prosperity. By connecting the region to global markets, aviation facilities provide economic development opportunities, the ability to engage in business activities related to aviation and the movement of cargo, and leisure and tourism opportunities throughout the world. The region's airports serve as a nonconventional inland port system, providing global access and enhancing the regional economy. Improving and maintaining surface access and land-use compatibility is crucial to preserving the regional system of aviation facilities.

The region has approximately 400 aviation facilities and is home to over 300 aerospace and aviation employers. Collectively, aviation in North Central Texas accounts for over $22 billion in economic impact.

Because of this economic impact, the Regional Transportation Council has a planning goal that landside access should not limit growth at the region's airports. Ideally, these airports should be able to grow to their airside limit without delays from roadway congestion. This includes intermodal connectors which provide access for intermodal shipments to airports.

Aviation facilities are vital transportation assets, and to remain competitive, they require coordinated planning, land-use protection, and funding support.

Aviation Policies and Programs

Policies are an important element in the planning and implementation of programs and projects. Mobility 2040 supports the following policies associated with aviation:

AV3-001: Improve efficiency, safety, air quality, and access related to aviation.

AV3-002: Provide input to the National Plan of Integrated Airport Systems and the Texas Airport System Plan.

Aviation at a Glance

The goal of regional aviation planning in North Central Texas is to promote, maximize, protect, and advance regional aviation infrastructure to accommodate future growth in the region. Achieving this goal will require integrating transportation connections while ensuring adequate future air and ground access and capacity within the region's aviation system.

North Central Texas Council of Governments Aviation Initiative Goals

1. Update general aviation and heliport regional plans.
2. Maintain the Air Transportation Advisory Committee.
3. Develop new policies, partnerships, plans, and programs for aviation.
4. Examine the market and timing for:
   - Additional aviation facilities
   - New intercity high-speed rail access to aviation
   - Improve reliever, general aviation, and heliport assets
5. Determine needs related to:
   - Long-term airspace demands
   - Maintaining international competitiveness
   - Surface access to and land use around airports/heliports
   - Improving air quality

Air Transportation Advisory Committee

The Air Transportation Advisory Committee is composed of airport managers, city managers, aviation industry representatives, and aviation experts from throughout the region. This committee provides a regional forum for discussing aviation needs related to general aviation and heliports. During the Regional General Aviation and Heliport System Plan process, the Air Transportation Advisory Committee served as the Project Review Committee and performed technical review functions on behalf of the North Central Texas Council of Governments' Executive Board and Regional Transportation Council on an as needed basis.

Regional aviation planning at the North Central Texas Council of Governments does not address selection of projects for entitlement funding/block grants/Airport Improvement Program funding, airport closures, interference with activities of private commercial pilots, or the performance of air carrier system planning.

carpools are shared-ride options for travelers starting from a similar area and traveling to and from work. Riders share costs among one another.

SPOTLIGHT ON DCTA

History

Denton County Transportation Authority was created and signed into law after the voters in Denton County approved the authority in 2002. DCTA provides general public transportation via the A-train regional passenger rail, fixed-route buses, shuttles, and demand response/paratransit service.

Service Area

The service area includes 157 square miles and is home to about 235,000 people. The three member cities include Denton, Highland Village, and Lewisville.

Ridership and Cost

In 2013, DCTA spent $23 million in total operating funds and $6.2 million in capital funds. Each year, DCTA provides over 3 million trips, which include 2.5 million trips via bus, 500,000 via rail, and thousands of trips on ADA paratransit, demand response, and vanpool services.

Sources: www.dcta.net, 2013 National Transit Database

Other public transportation providers in the region provide bus service at a smaller scale. Several communities directly provide or contract to provide demand-response public transportation. Demand-response service requires riders to schedule trips in advance, and the service provider coordinates efficient shared-ride transportation based on these trip requests. Handitran serves the city of Arlington; Grand Connection serves the city of Grand Prairie; STAR Transit serves the city of Mesquite; and Northeast Transportation Services serves the cities of Bedford, Euless, Grapevine, Haltom City, Hurst, Keller, and North Richland Hills. These demand-response services are available for seniors and people with disabilities.

As the region has grown, public transportation agencies that historically served the region's smaller communities and rural areas expanded to serve communities with suburban development and emerging growth. These transportation agencies also provide daily bus routes connecting communities to the region's core so riders can access jobs and services. Public Transit Services serves Parker County residents with demand-response transportation and operates a commuter connection from Mineral Wells and Weatherford to Fort Worth. City/County Transportation, operating under the city of Cleburne, serves Johnson County with demand-response transportation and a commuter connection from Cleburne and Burleson to Fort Worth. STAR Transit serves Kaufman County, Rockwall County, and portions of Dallas County, including Mesquite, Balch Springs, and Seagoville. STAR Transit provides demand-response transportation, fixed routes, and commuter service into Dallas.

Several smaller transportation providers operate demand-response service only for "lifeline" type trips. Nonprofit agencies or rural transit agencies provide such trips during a limited number of hours per day or a limited number of days per week. Span, Inc. provides demand-response transportation to Denton County communities outside of DCTA's service area. Community Transit Services serves Ellis County, The Connection serves Hunt County, and The Transit System serves Hood County. In addition, nonprofit or other providers offer client-specific transportation in support of their overall mission, which may be job training, nutrition, or services for specialized populations like cancer patients, individuals with disabilities, or older adults.

Public Transportation Programs

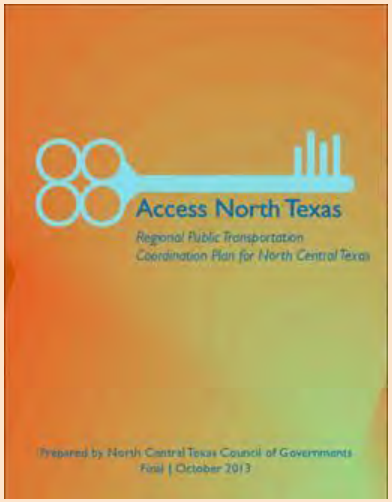
Meeting transit demand requires multiple forms of transit to ensure mobility for residents across North Central Texas. The transit programs outlined below summarize the types of transit service that are included in Mobility 2040. The Community Access Transit Program provides demand-response services, ensuring individuals across the region can access needed goods and services. The Last-Mile Transit Connections Program includes fixed bus and rail routes and people movers where demand is high enough to support these services. Regional connection programs for bus and rail service link activity centers and serve key travel corridors. The State and National Transit Connections Program includes high-speed rail and other services that extend beyond North Central Texas. Lastly, the Transit Enhancements and Mobility Improvements Program is focused on enhancing the efficiency and quality of public transportation. Together, these programs and services provide transit options for residents across the region, in line with community priorities, through 2040.

Community Access Transit (TR2-001)

Primarily through demand-response services, community access transit links people to jobs and job training, community services, life-saving medical care, and life-enriching activities.

Demand-response service provides flexibility for when, where, and how service is operated, but typically riders schedule service a few hours to several days in advance. The service accommodates multiple riders who share the trip. Eligibility can be limited to people with disabilities, older adults, or others meeting defined criteria. In areas that have fixed-route services, such as local bus routes, federal regulations require that public transportation operators provide demand-response transportation called ADA complementary paratransit for eligible individuals with disabilities who are unable to use the fixed routes. Other demand-response services include community shuttles, volunteer driver programs, and taxi voucher programs. In low-density areas where riders need to reach dispersed destinations, demand-response service provides the ability to serve a large geographic area. The time needed to plan for and implement this type of services is six months to a year.

SPOTLIGHT ON PLANNING FOR COMMUNITY ACCESS TRANSIT



Public transportation services for seniors, individuals with disabilities, and low-income individuals are required to meet federal and state requirements for coordination and efficiency. In order to help the region meet those requirements, a detailed plan that prioritizes public transportation strategies for North Central Texas was completed in 2013. See the Access North Texas plan online at www.accessnorthtexas.org.

Last-Mile Transit Connections (TR2-002)

Last-mile transit connections include fixed-route bus and rail transportation or people movers that enable travelers to reach regional transit facilities or to reach their final destination after using regional transit. Communities can implement these last-mile transit services in addition to providing facilities that allow travelers to make their last-mile connection by walking or biking. Mobility 2040 includes several last-mile transit connection projects which are outlined in the project listing in **Appendix E**.

Streetcars, circulators, and trolleys are fixed-route rail transit services that operate within a limited area such as a downtown, regional activity center, or transit-oriented development. These services focus on destinations such as housing, employment, or entertainment in a district within a five-minute walk. Last-mile services can provide access to neighborhoods or help people travel to areas where parking is limited or is already at capacity. Like these services, rail services in the form of people movers, monorails, and automated guideways serve areas of concentrated activity that experience congestion. People movers are discussed in more detail below.

Buses also can provide last-mile services. Local bus service that operates on fixed routes is central to robust transit systems. In lower density areas, buses provide multiple options for last-mile connections. Flex bus service can include some stops with fixed locations and times and some stops that vary based on demand. Feeder buses or site-specific shuttles can also connect passengers in lower density areas to nearby hubs of activity.

The time needed to plan and implement last-mile connections varies by the type of service. Bus service typically requires six months to over a year for more complex systems. Rail technology typically requires five to ten years, but more time could be needed depending on environmental factors, funding source timing, and the extent to which the technology must be integrated with existing

transit services. Both bus and rail last-mile connections will require more time for planning and implementation if the connections involve capital improvements such as stops, stations, or the installation of overhead power.

People Movers

People movers circulate travelers across a geographically small area, typically using electric-powered vehicles operating at a separate grade from roadways. People movers often connect districts or single destinations to larger-scale regional transit. These systems are similar to regional light rail, but people movers typically operate smaller vehicles that serve smaller areas with stations spaced closer together and with shorter gaps of time between trips; this time is known as headway.

In some early systems, poor planning led people movers to be associated with government waste. But when properly planned and carefully implemented, these systems can reduce local traffic, provide opportunities for transit-oriented development, alleviate parking issues, and expand the reach of existing and planned regional transit service.

People movers are commonly built in the following locations:

- Hospital districts/campuses where a large number of visitors and medical professionals need to travel between closely spaced buildings.
- Entertainment districts where a large number of visitors travel between closely spaced destinations.
- Downtowns, particularly in areas where a people mover could connect to other forms of transit or serve areas with many residents and non-office commercial activity.
- Locations where a large attraction such as a stadium or airport is located near a regional transit route but is not directly served by that route; a people mover that connects the transit route to the attraction could reduce travel times to and from the attraction and increase ridership on the transit line.
- Within or between airport terminals, particularly where terminals are large or not immediately adjacent to one another.

Two people mover systems currently operate in North Central Texas. The Dallas/Fort Worth International Airport Skylink shuttles passengers between Dallas/Fort Worth International Airport's terminals, which are large and spaced far apart. The system enables passengers to make connections without having to be rescreened by security. The Las Colinas Area Personal Transit (APT) system is a small people mover system at the Las Colinas Urban Center in Irving. The system initially suffered from low ridership, but after an increase in the system's hours of operation and the recent expansion of DART's Orange Line through Las Colinas, the APT now directly connects to regional transit and its ridership has increased from an average of 435 riders per work week to an average of 3,060 riders per work week. In response, the APT's operator has proposed upgrades and an extension to serve proposed development and the Irving Convention Center.

DFW Skylink people mover trainset in operation at Dallas/Fort Worth International Airport. (Dallas/Fort Worth International Airport, 2014)

Recent interest in people movers has resulted in stakeholder suggestions for new systems in the region. The following systems were proposed at a regional planning forum in 2014:

- **Dallas Love Field**: This system would connect Dallas Love Field's terminal to Dallas Area Rapid Transit's Green/Orange Line at the Inwood/Love Field station, potentially connecting to a rental car facility along the way. An earlier proposal that would have connected the terminal to DART's Burbank station by creating a tunnel underneath the airport's runways was determined to be too expensive.
- **Southwestern Medical District**: This system would provide circulation between various University of Texas Southwestern Medical Center and Parkland hospital campuses in the district and provide connections to the TRE and the DART Green/Orange Line.
- **Dallas Midtown/Galleria**: As part of a district revitalization effort, people movers could provide local circulation and connect travelers to regional transit as the district develops.

- **Arlington Entertainment District/University of Texas at Arlington**: This longer system would connect the University of Texas at Arlington, downtown Arlington, Arlington's entertainment district, and proposed redevelopment areas to the Dallas/Fort Worth International Airport, the TRE, and proposed high-speed rail.
- **Arlington General Motors Facility (freight)**: This freight-only system would connect the General Motors factory to a nearby railyard for shipping. Currently, vehicles assembled at this factory are moved to the railyard using trucks on surface streets, creating safety and congestion issues.
- **Irving Freeport**: This system would serve an area of office and light industrial land use immediately north of Dallas/Fort Worth International Airport, and may connect to DART's Orange Line.
- **Naval Air Station Fort Worth Joint Reserve Base**: This system would provide circulation within this military facility, possibly connecting to the nearby Lockheed Martin Aeronautics Company.

No funding dedicated to people movers exists, but these proposals could seek funding via sales taxes, property taxes, fares, private funding, and federal grant programs, including New Starts and Small Starts.

In response to these proposals and stakeholder requests, NCTCOG has studied the feasibility of people mover systems in the region. NCTCOG analyzed land-use patterns surrounding people mover systems operating successfully in other North American cities. This analysis indicated that the following land-use characteristics can generally be tied to the success of these systems:

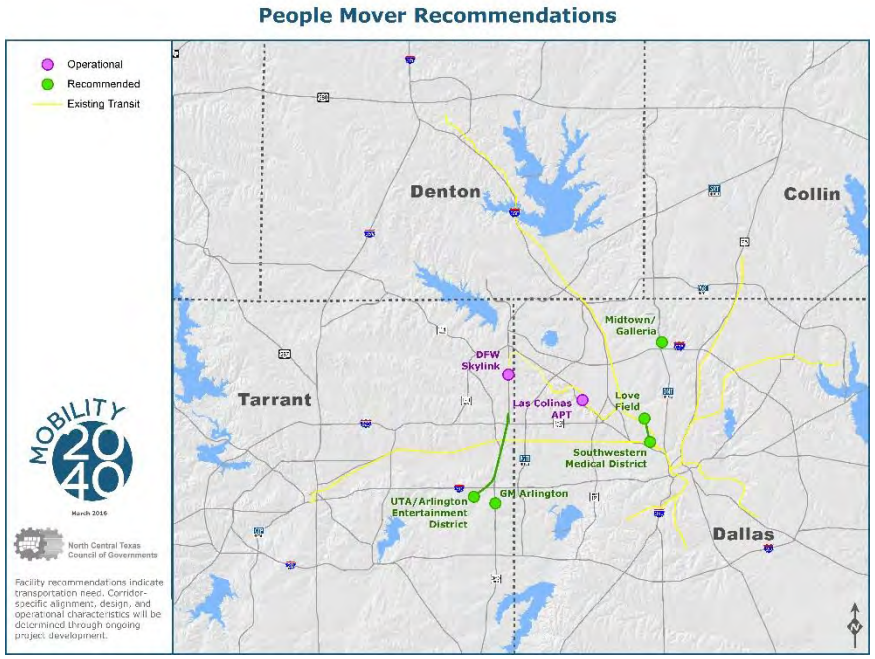
- High population density
- High employment density
- Employment specializing in education; healthcare; finance and insurance; and professional, scientific, and technical services
- Presence of mixed and institutional land uses

Preliminary results suggest that a number of areas in the region have these characteristics and may be able to support people mover systems. Mobility 2040 recommends the following strategies to further the implementation of people movers in the region:

- Continue research and analyze the feasibility of people movers in the region by:
  - Considering adding a freight movement component
  - Identifying transit currently serving studied areas to avoid duplication
  - Producing information about future demographics
  - Examining Environmental Justice concerns
  - Considering activity centers and special generators
  - Forecasting ridership levels
  - Estimating costs and benefits
- Support Dallas County Utility and Reclamation District in its efforts to overhaul and expand the Las Colinas APT system to serve the Irving Convention Center and future development in Las Colinas.
- Continue ongoing efforts to implement a people mover system connecting Dallas Love Field to its rental car facility and DART light rail.
- Support stakeholders in their efforts to plan and implement a people mover system at the Southwestern Medical District in Dallas.
- Consider the proximity of the proposed systems at Dallas Love Field and the Southwestern Medical District, continue to explore the possibility of integrating the two systems, and encourage stakeholders to adopt compatible technology.
- Work with stakeholders to continue planning for a people mover system in the Dallas Midtown/Galleria area to provide local circulation and connections to existing and planned regional transit.
- Continue planning and stakeholder cooperation for a long-distance people mover system that would connect the University of Texas at Arlington, downtown Arlington, Arlington's entertainment district, and proposed redevelopment areas to the Dallas/Fort Worth International Airport, the TRE, and future high-speed rail.
- Continue current planning efforts and work toward implementing a freight mover system at General Motors' Arlington assembly plant.

Exhibit 6-16 depicts the people mover systems recommended for further study and planning.

Exhibit 6-16: People Mover Recommendations



Regional Connections: Bus (TR2-003)

Bus service can link communities or nodes of activity across the region. Bus service at the regional level includes high-intensity bus services ranging from traditional express bus service to service with defined stations and exclusive right-of-way:

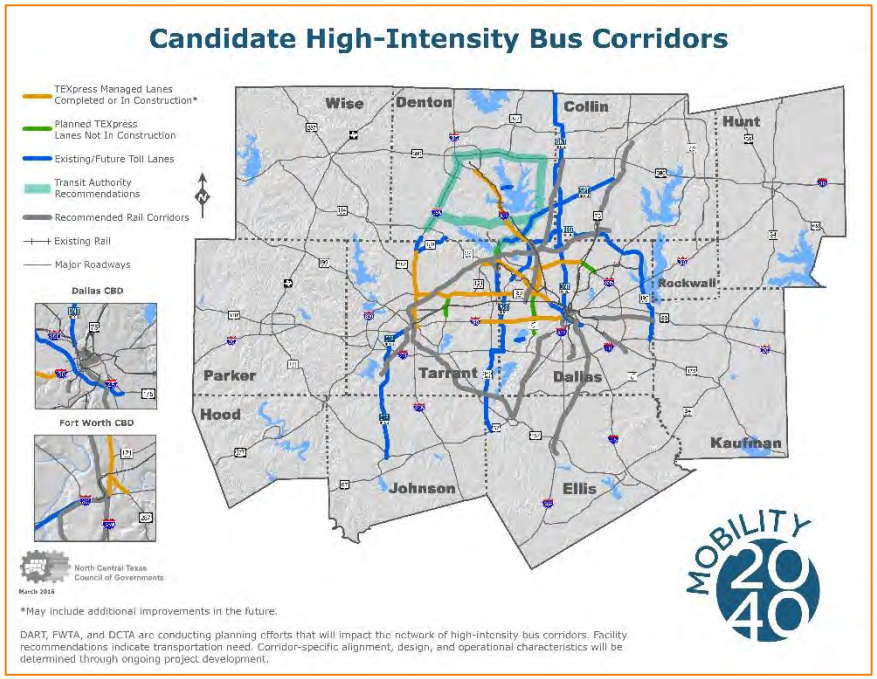
- Premium bus service
- Bus rapid transit
- Commuter service
- Express buses
- Limited-stop bus services

As development takes place, high-intensity bus service can respond to growing demand for transit relatively quickly; it can operate in areas where the cost or capital requirements of rail service are prohibitive. Successful services can expand over time and lay the groundwork for other transit services — such as rail — in the future. **Exhibit 6-17** summarizes opportunities for high-intensity bus service, and the Candidate High-Intensity Bus Corridors map in **Exhibit 6-18** identifies potential corridors in the region. Prior to implementing service in these potential corridors, planning and analysis will consider short- and long-term implementation options and local conditions.

Exhibit 6-17: High-Intensity Bus Service Opportunities

High-Intensity Bus Service	Where
Lower cost replacement for rail service	In corridors where rail service is not feasible.
Precursor for rail service	In rail corridors or on parallel facilities with excess capacity before rail service is implemented.
Other opportunities	In other high-demand corridors, including corridors with managed lanes or toll roads with excess capacity.

Exhibit 6-18: Candidate High-Intensity Bus Corridors



Specific projects are included in **Appendix E** and are shown in the Major Transit Corridors Recommendations map on the following page.

Operating features can increase the capacity of transit service in corridors with high demand and can provide a realistic alternative to driving alone. User experience features in buses and at bus stations can make high-intensity bus service more attractive to riders.

Operating Features

- Connections between outlying areas and central nodes of activity or connections between regional destinations.
- Frequent peak service in one or both directions along a route with potential for additional off-peak and weekend service.
- Travel-time savings when operated in managed lanes or high-occupancy vehicle lanes (managed lanes have the potential for guaranteed travel times on a portion of the route).
- Travel time savings associated with exclusive bus right-of-way.
- Transit signal prioritization where traffic signals are slightly adjusted in real time to expedite buses.
- Opportunities for buses to take priority at stop lights that are red (queue jumping).

Transit User Experience Features

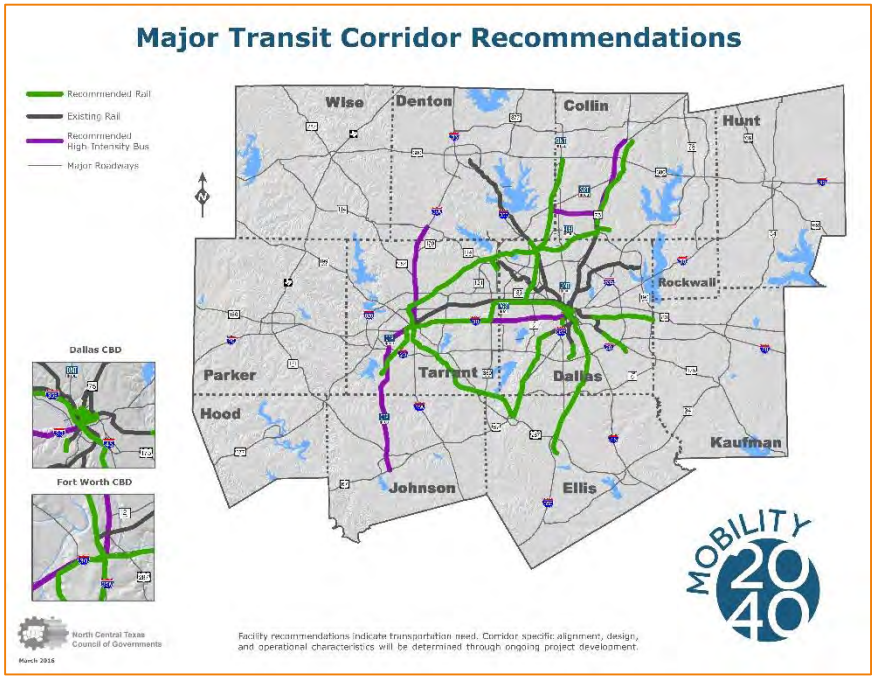
- Buses with commuter amenities such as Wi-Fi, charging stations, and work surfaces.
- Buses designed to replicate a rail vehicle with easy, level boarding and longer vehicles.
- Park-and-ride lots or other waiting areas with potential for additional amenities like coffee shops or dry cleaning services.
- Defined stations with pre-board ticketing.
- Separate branding.
- Fare discounts if buses do not reach their destination on time.
- Integration with guaranteed ride home programs.

The time needed to plan for and implement a single route with few enhancements is typically six months to one year. The time needed to plan and implement complex regional bus service can range from three to five years for a single route or five to ten years for a multi-route system. The variation in time depends on the scale of implementation, the amount of right-of-way available, and the degree to which the routes will be integrated with existing transit services.

Regional Connections: Rail (TR2-004)

Mobility 2040 calls for expanded rail service as part of the region's multi-faceted transit network. Services include new commuter and regional rail service in high-intensity transit corridors, extensions of rail lines in emerging transit markets, expansions that increase core capacity aimed at improving overall system capacity, and rail lines that connect communities. Regionally significant projects are outlined in **Appendix E** and are shown along with planned high-intensity bus corridors in the Major Transit Corridors Recommendations map in **Exhibit 6-19**.

Exhibit 6-19: Major Transit Corridor Recommendations



The local passenger rail system includes light rail, regional rail, and commuter rail service. DART's light-rail system serves many destinations, from Dallas/Fort Worth International Airport to neighborhoods to downtown Dallas. Commuter rail or regional rail service may link outlying areas to a central area of activity such as a central business district, or it can connect nodes of activity in a highly developed corridor. Rail service involves rigorous planning and engineering; it

requires extensive capital investment in stations, rail cars, maintenance facilities, rail guideways on which the rail cars travel, signals along guideways and at crossings, and overpasses and underpasses.

As projects recommended in Mobility 2040 are developed, their specific corridor and station locations could change, as could the vehicles used. Funding details also will be determined as the projects are developed. Regional connections with rail service can take 10 to 20 years to plan and implement. The time required depends on funding availability, collaborative support for a project, and other factors. In some cases, the initial time required for planning and implementation can be decreased by phasing a rail project. Phasing initially develops a segment that meets much of the goals of the larger project. Additional time would be needed to plan and implement expansions to this segment.

State and National Transit Connections (TR2-005)

Transit also links North Central Texas to neighboring regions, the rest of Texas, and the nation. Existing services include intercity bus and intercity rail via Amtrak. Mobility 2040 includes plans for high-speed rail service that will connect North Central Texas to other regions.

High-Speed Passenger Rail

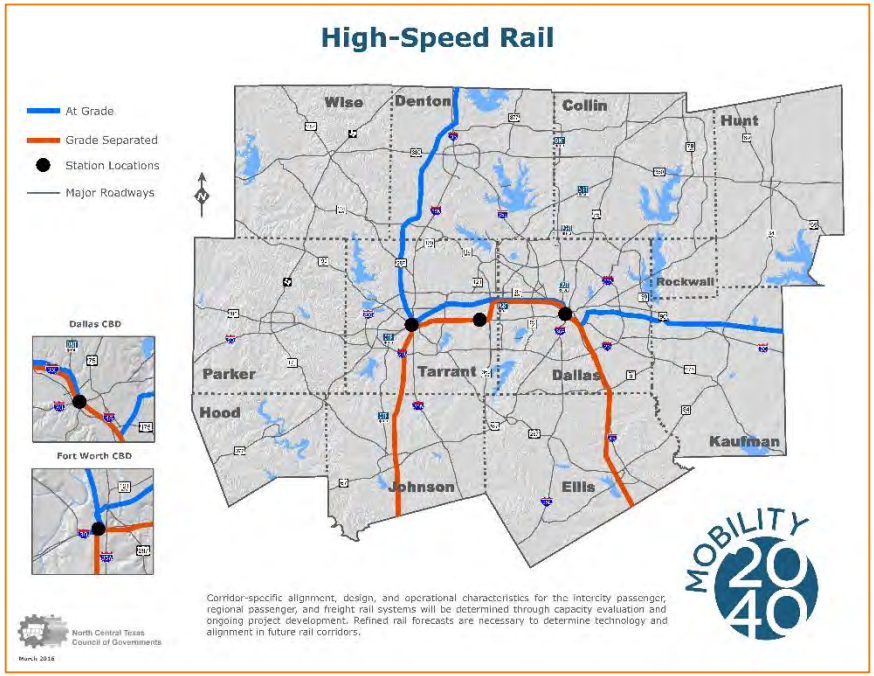
The North Central Texas region has been identified as a potential hub for passenger rail routes serving distant regions. Federal and state plans indicate a need for high-speed passenger rail service to, through, and within the region. Corridors traveling through North Central Texas include proposed service to Oklahoma City; Austin; San Antonio; Houston; Shreveport, Louisiana; and Little Rock, Arkansas. Alignments have not been determined, but planning is progressing for some of these corridors.

Four proposed corridors would provide service from Oklahoma City to south Texas, Fort Worth to Shreveport, Fort Worth to Dallas, and Dallas to Houston. Recommendations for Mobility 2040 include at-grade and grade-separated high-speed rail service within the region, as identified in **Exhibit 6-20**. The recommendations identified in this exhibit were thoroughly discussed with the Regional Transportation Council's (RTC) Multimodal/Intermodal/High-Speed Rail/Freight Subcommittee.

The RTC determined the recommendations would include stations in downtown Fort Worth, Arlington, and downtown Dallas. In addition, the RTC determined the most effective and efficient plan for the region would provide a seamless service – a "one seat ride" – for passengers, meaning passengers would not be required to transfer to reach their destination.

High-speed rail service within the Dallas-Fort Worth region is not necessarily intended to be a stand-alone service; rather, service within the Dallas-Fort Worth region is an integral component of a larger statewide and national network.

Exhibit 6-20 High-Speed Rail Recommendations



The Dallas to Houston corridor has been identified as having the most potential for high-speed passenger rail service. An effort led by the private sector is analyzing the corridor for environmental impacts, alignment options, station locations, and funding options. The Dallas to Houston corridor is recommended as a grade-separated high-speed rail service corridor, as shown in **Exhibit 6-20**.

The proposed corridor extending from Oklahoma City to south Texas also exhibits high ridership potential, particularly segments south of Fort Worth. Initial planning indicates a need for at-grade high-speed rail service from Fort Worth to Oklahoma City. From Fort Worth southward, grade-separated high-

speed rail service has been identified as the appropriate technology. Additional analysis is needed to refine the corridor alignment and service types.

Planning for the proposed corridor, extending eastward from Dallas to Shreveport, Louisiana, indicates a need for at-grade passenger services.

Within the Dallas-Fort Worth region, both at-grade and grade-separated high-speed rail service is recommended from Fort Worth to Dallas. The recommended Fort Worth to Dallas grade-separated service includes stations in downtown Fort Worth, Arlington, and downtown Dallas as identified in **Exhibit 6-20**. By connecting the identified grade-separated high-speed rail corridors, a "one seat ride" can be achieved from south Texas to Houston through the Dallas-Fort Worth region.

Cost estimates for grade-separated high-speed rail within the Dallas-Fort Worth region are provided in **Exhibit 6-21**. The Fort Worth to Austin and Dallas to Houston corridors will be funded with private sector initiatives. The Fort Worth to Dallas project will be funded with a public-private partnership.

Exhibit 6-22 displays characteristics and typical costs for the passenger rail categories included in Mobility 2040, including grade-separated high-speed rail and at-grade high-speed rail.

Exhibit 6-21: Cost Estimates

ID	From	To	Distance (within MPA)	Private	Public	Total
				Revenue Sources ($millions)		
1	Johnson/Hill County Line	Fort Worth	38.0	$3,200	$0	$3,200
2	Fort Worth	Dallas	34.8	$1,400	$1,500	$2,900
3	Ellis/Navarro County Line	Dallas	41.6	$3,500	$0	$3,500
Totals			***114.4***	***$8,100***		***$9,600***

Exhibit 6-22: Passenger Rail Technology Characteristics

Technology / Service	Speed Range (mph)	Station Spacing (miles)	Power Source	Approximate Capital Cost (millions per mile)	Grade Separated	Shared Service
Grade Separated	>150	>200	Electric	$85	Yes	No
At-Grade	79 – 150	100 – 200	Diesel or Electric	$65	No	Freight
Amtrak	<79	30 – 100	Diesel	$20	Some	Freight
Commuter Rail	<79	3 – 5	Diesel	$25	Some	Freight
Regional Rail	<79	3 – 5	Diesel or Electric	$25	Some	Freight
Light Rail	<60	0.5 – 2	Electric	$75	Some	Some Autos
Streetcar	<30	2 – 3 blocks	Electric	$20	No	Autos

Sources: NCTCOG, Fort Worth Transportation Authority, Dallas Area Rapid Transit, Texas Department of Transportation

Interaction with Freight

The high-speed rail corridors that have been recommended for at-grade service are located in active freight rail corridors. Project sponsors will work with corridor owners to accommodate passenger rail service. Although high-speed passenger rail service is recommended in these corridors, the RTC does not intend to degrade current or future freight rail service, but rather to enhance transportation options for the traveling public. Negotiations between the freight rail operators and the providers of high-speed passenger rail are expected to

explore many options to implement high-speed passenger rail and maintain freight rail service in the same corridors.

Transit Enhancements and Mobility Improvements (TR2-006)

In addition to implementing the public transportation services described above, by 2040, the region plans to invest time and money to maximize existing transit assets. This will be accomplished by projects, including those that enhance the safety of the transit system, cost effectively increase the capacity of the system, and improve the seamlessness of the system. Maximizing the existing system will increase its efficiency and support transit as a mode of choice for the region's residents and visitors.

The operation of the transit system can be enhanced by coordinating services across providers. This can create seamless trips for transit users and provide regional travel for the crowds that attend special events. Mobility management techniques can provide transit information to travelers in a way that is strategic and cost effective. These improvements to the operation and mobility management of public transportation are known as operational enhancements.

Physical changes that improve the transit system are known as capital enhancements.

- Capacity improvements can cost effectively meet growing demand for service. They include extending platforms at rail stations; adding larger buses to fleets; and double-tracking rail corridors, which adds a track to a corridor and allows trains to travel in opposite directions simultaneously.
- Safety and security improvements include adding security equipment, adding the latest safety features at railroad crossings, and using positive train control which is technology that automatically stops trains to prevent a crash.
- Technology improvements are cost-effective means to improve the capacity of transit systems. These improvements include changes to scheduling, signalization, and other areas of operations.
- Accessibility improvements make it easier for passengers of all ability to access transit services and facilities. These improvements can be made to rail or bus stations, and include sidewalks and curb cuts. Other accessibility improvements help transit passengers connect to other modes of transportation. These improvements provide better access for bicyclists and pedestrians and create systems to help travelers navigate through the region. For more information on travel for bicyclists and pedestrians, please see the *Active Transportation* section of this chapter.

The time needed to plan for and implement the transit enhancements and mobility improvements outlined here depends on the scope of the specific project and can range from several months to several years.

Financial Summary

This section summarizes the financial resources supporting the public transportation programs described in Mobility 2040, including capital and operating costs.

Exhibit 6-23 outlines the costs to implement public transportation programs through 2040. The programs are financially constrained to expected revenues. The **Financial Reality** chapter provides information on the overall financial resources supporting implementation of this plan.

Exhibit 6-23: Public Transportation Programs

Transit Cost Categories, 2016-2040	Total Cost (Actual $, M)
Community Access Transit Program	$2,464.1
Last-Mile Transit Connections Program	$11,951.3
Regional Connections: Bus Program	$628.6
Regional Connections: Rail Program	$21,296.1
State and National Transit Connections Program	$9,800.0
Transit Enhancements and Mobility Improvements Program	$1,056.1
Total	***$47,196.2***

Federal Funding

Federal funding for public transportation in North Central Texas, including funding from the Federal Transit Administration, is programmed by the RTC. Federal funding sources are available for capital investments, pilot projects, and transportation planning. In limited cases, this funding also is available for transportation operations, with some sources intended specifically for transit-dependent populations. Federal funding programs are either formula-based or discretionary. Formula-based programs allow transit providers to access federal funds that are distributed to urbanized areas based on a formula using population, population density, and other factors related to ridership.

Discretionary funding, when available, typically involves submitting a project or program as part of a competitive selection process.

State Funding

The Texas Department of Transportation (TxDOT) also provides funding for public transportation allocated by the Texas Transportation Commission. Public transportation formula programs through TxDOT primarily focus on rural and small urban systems, but state funding is sometimes available on a discretionary basis for other public transportation projects.

Local Funding

Cities and counties have the option to contribute to transit services through their own revenue sources such as general funds and sales tax revenues. Public transportation competes for local funds against other priorities such as police, libraries, and parks unless funding is specifically dedicated to transit. Local sales tax can provide revenue for transit services. Currently, the state of Texas limits the combined sales tax for all taxing authorities to 8.25 percent. The state sales tax rate is 6.25 percent, leaving up to 2 percent for cities to apportion in a variety of ways. Several sales taxes can be used to fund public transportation. Cities that are members of DART, the T, and DCTA currently dedicate a portion of their sales tax to those transit authorities. Cities that want to support public transportation but do not already allow a Transit Sales and Use Tax may have opportunities to reallocate existing sales tax revenue to fund transit services or identify a different source of public funds to support transit.

Innovative Finance, Public-Private Partnerships, and Private-Sector Funding

Depending on the scale of the transit service to be implemented, a variety of innovative financing techniques, public-private partnerships, and private-sector participation may be needed to leverage other federal, state, and local funds. To implement the system of rail service included in Mobility 2040, creative partnerships involving all of these approaches will be needed. For bus service, private sector participation from employers, merchants, retail establishments, and private-nonprofit organizations can be incorporated on a case-by-case basis.

Mobility 2040 will be consistent with the RTC's policy position on transit implementation in the Cotton Belt corridor, as shown in **Appendix E**.

Policies

The RTC has shown policy support for transit to further provide direction as the region creates successful public transportation services. This plan's policies for public transportation are outlined below.

TR3-001: Public transportation needs should be met by existing transportation authorities and providers through a comprehensive, coordinated, and cooperative approach to maximize existing transportation resources. Alternative implementation approaches may be necessary if existing transportation authorities and providers are unable to provide needed services in a timely manner (consistent with **Regional Transportation Council Policy P09-03**).

TR3-002: Work with the region's existing public transit providers to ensure a seamless multimodal transit system through:

- Seamless connections
- Coordinated fare structure
- One-stop access to services
- Standardization of assets, technologies, and service characteristics that promote interoperability
- Improved interaction between public, private-for-profit, and private-nonprofit transit providers (consistent with **Regional Transportation Council Policy P09-03**)
- Elimination of gaps in service to establish a minimum level of service
- Service expansion

TR3-003: Existing public use rights-of-way should be monitored for appropriate public transportation service.

TR3-004: Transportation authority members who receive funds for the implementation of projects that promote transit accessibility will be required to pay back funds, as determined by the Regional Transportation Council, should the entity choose to not continue as a member of that authority.

TR3-005: Support the planning and development of high-speed rail to, through, and within the North Central Texas region by leading project development efforts and coordinating with federal and state initiatives as appropriate.

TR3-006: Maximize the efficient use of public transportation resources in North Central Texas including public, private-nonprofit, and private-for-profit providers of services.

TR3-007: Implement safety, management and operations, and multimodal system integration projects and programs as appropriate.

TR3-008: Establish policies and procedures that encourage and reward coordination.

TR3-009: Support efforts to make accommodations for rail and other public transportation services to major events centers during special events.

TR3-010: Support efforts by transit authorities to secure funding through local, state, federal, and other sources for the development and implementation of public transportation, including the Federal Transit Administration's New Starts Program.

TR3-011: Establish policies fostering high-speed rail system interoperability resulting in a "one seat ride" system operation to, through, and within the North Central Texas region.

TR3-012: Establish policies encouraging regional access by identifying grade-separated high-speed rail station locations in downtown Fort Worth, Arlington, and downtown Dallas.

TR3-013: Support the planning and development of sustainable land uses near grade-separated high-speed rail locations by coordinating with the cities of Fort Worth, Arlington, and Dallas.

TR3-014: Support the planning and development of sustainable land uses near at-grade high-speed rail station locations by coordinating with the cities hosting stations.

Public Transportation

Policies

MTP Reference #	Public Transportation
TR3-001	Public transportation needs should be met by existing transportation authorities and providers through a comprehensive, coordinated, and cooperative approach to maximize existing transportation resources. Alternative implementation approaches may be necessary if existing transportation authorities and providers are unable to provide needed services in a timely manner (consistent with **Regional Transportation Council Policy P09-03**).
TR3-002	Work with the region's existing public transit providers to ensure a seamless multimodal transit system through: • Seamless connections • Coordinated fare structure • One-stop access to services • Standardization of assets, technologies, and service characteristics that promote interoperability • Improved interaction between public, private-for-profit, and private-nonprofit transit providers (consistent with **Regional Transportation Council Policy P09-03**) • Elimination of gaps in service to establish a minimum level of service • Service expansion
TR3-003	Existing public use rights-of-way should be monitored for appropriate public transportation service.
TR3-004	Transportation authority members who receive funds for the implementation of projects that promote transit accessibility will be required to pay back funds, as determined by the Regional Transportation Council, should the entity choose to not continue as a member of that authority.
TR3-005	Support the planning and development of high-speed rail to, through, and within the North Central Texas region by leading project development efforts and coordinating with federal and state initiatives as appropriate.
TR3-006	Maximize the efficient use of public transportation resources in North Central Texas including public, private-nonprofit, and private-for-profit providers of services.
TR3-007	Implement safety, management and operations, and multimodal system integration projects and programs as appropriate.
TR3-008	Establish policies and procedures that encourage and reward coordination.
TR3-009	Support efforts to make accommodations for rail and other public transportation services to major events centers during special events.
TR3-010	Support efforts by transit authorities to secure funding through local, state, federal, and other sources for the development and implementation of public transportation, including the Federal Transit Administration's New Starts Program.
TR3-011	Establish policies fostering high-speed rail system interoperability resulting in a "one seat ride" system operation to, through, and within the North Central Texas region.
TR3-012	Establish policies encouraging regional access by identifying grade-separated high-speed rail station locations in downtown Fort Worth, Arlington, and downtown Dallas.
TR3-013	Support the planning and development of sustainable land uses near grade-separated high-speed rail locations by coordinating with the cities of Fort Worth, Arlington, and Dallas.
TR3-014	Support the planning and development of sustainable land uses near at-grade high-speed rail station locations by coordinating with the cities hosting stations.

State and National Transit Connections Program	
Reference	TR2-005
Background	This program includes public transportation service, including high-speed rail, linking the North Central Texas region to neighboring regions and the state of Texas.
Related Goals	Improve the availability of transportation options for people and goods.
Related Policies	TR3-002, TR3-005
Implementation	Conduct needs assessments, planning, and service design activities to determine capital and operational characteristics and funding details for service. Through public and private agencies, implement service to connect outside the region as needed through 2040.
Performance Measures	Average daily number of routes linking the region to outside destinations.
Cost Estimate	$9,800,000,000

Transit Enhancements and Mobility Improvements Program	
Reference	TR2-006
Background	The diverse projects in the program include improvements to safety and security, capacity, operations, technology, and accessibility that increase the efficiency of the region's transit system and support transit as a mode of choice for the region's resident and visitors.
Related Goals	• Improve the availability of transportation options for people and goods. • Supprot travel efficiency measures and system enhancements targeted at congestion reduction and management. • Assure all communities are provided access to the regional transportation system and planning process.
Related Policies	TR3-002, TR3-006, TR3-007, TR3-008, TR3-009, TR3-010
Implementation	Conduct needs assessments, planning, and design activities to determine parameters and funding details for enhancements and improvements. Through public and private agencies, implement enhancements as needed through 2040.
Performance Measures	Annual number of transit enhancement and mobility improvement projects.
Cost Estimate	$1,056,100,000

Right-Sizing Public Transportation Services

The transit service provided in the region varies by location and will change over time to respond to community needs and changing demographics. The information below outlines evaluation criteria for transit services to assist the region and local governments as they consider implementing transit services.

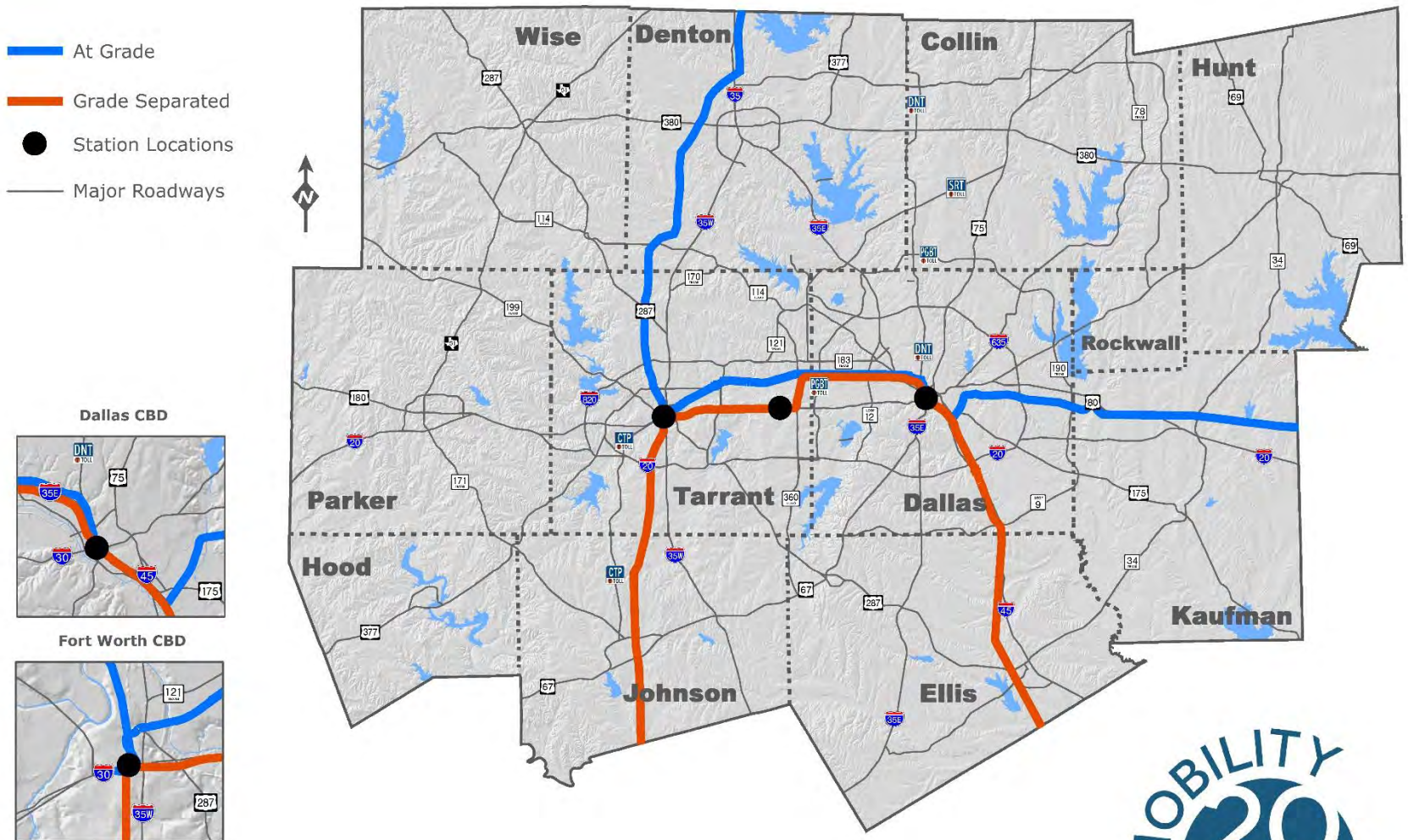
For communities that have no transportation service, defining the goals the community wishes to accomplish by providing transit service is vital. When considering transit service, communities may set expectations related to serving different demographics, evaluate the Environmental Justice implications of service, develop expectations related to economic development, establish targets for quality of life, and carefully consider fiscal responsibility in terms of how the community values transit service in relation to other community priorities. Coordination of transit service leading to a seamless experience for the user also contributes to a successful transit system because the region's economy is intertwined across communities.

The following table includes performance, implementation, and support criteria for evaluating new or expanded transit services. Performance criteria are typically the first aspects considered during a technical or feasibility analysis, and these criteria include measures of mobility and accessibility improvement, as

Transit Projects Listing

Corridor ID	Corridor	From	To	Estimated Length (miles)	Region	Agency	Mode	Status	Conformity Range	Recommendation	Project Type	Segment ID	Capital Cost ($M) (YOE)
1	Blue Line – UNT Extension	Ledbetter	UNT South Campus	3	East	DART	Light Rail	Under Construction	Present - 2017	DART 2030 System Plan	Extension of Line	TR1-10303.2	$266
2	Cotton Belt	DFWIA Terminal A/B	Shiloh	28	East	DART	Regional Rail	Programmed	2018 - 2027	DART 2030 System Plan	New Corridor	TR1-10314.0	$2,900
3	Downtown Dallas 2nd Alignment (D2)	Victory Station	Deep Ellum	2.4	East	DART	Light Rail	Programmed	2018 - 2027	DART	New Corridor	TR1-10333.0	$650
3	Downtown Dallas 2nd Alignment (D2) - Convention Center Extension	Metro Center Station	Dallas Convention Center	0.5	East	DART	Light Rail	Future	2018 - 2027	DART	New Corridor	TR1-10333.1	$349
4	Dallas Streetcar (Central Link)	Urban Circulator/McKinney Avenue Trolley	Union Station	1.5	East	East-Other	Streetcar	Programmed	2018 - 2027	DART	New Corridor	TR1-10351.2	$92
4	Dallas Streetcar	Oak Cliff	Bishop Arts	1	East	East-Other	Streetcar	Under Construction	Present - 2017	City of Dallas	New Corridor	TR1-10351.1	$26
5	A-train	Trinity Mills	Belt Line (Carrollton)	2	East	DCTA	Regional Rail	Future	2028 - 2037	DCTA	Extension of Line	TR1-10306.2	$96
6	Frisco Line	South Irving Transit Center	Frisco	29	East	East-Other	Regional Rail	Future	2028 - 2037	RRCS	New Corridor	TR1-10318.0	$1,392
7	Mansfield Line	Midlothian	Fort Worth ITC	30	West	West-Other	Regional Rail	Future	2028 - 2037	NCTCOG	New Corridor	TR1-10328.0	$1,440
8	McKinney Line	Parker Road Station (Plano)	McKinney North	18	East	East-Other	Regional Rail	Future	2028 - 2037	RRCS	New Corridor	TR1-10300.2	$864
9	Midlothian Line	Westmoreland	Midlothian Central	18	East	East-Other	Regional Rail	Future	2028 - 2037	RRCS	New Corridor	TR1-10336.0	$864
10	Green Line – Southeast Extension	Buckner Blvd.	South Belt Line Road	6	East	East-Other	Regional Rail	Future	2028 - 2037	NCTCOG	Extension of Line	TR1-10302.2	$288
11	TEX Rail	T&P Terminal	DFWIA Terminal A/B	27	West	the T	Regional Rail	Programmed	2018 - 2027	the T	New Corridor	TR1-10315.1	$996
12	Southwest TEX Rail	Sycamore School Road/McPhearson	T&P Terminal	11	West	the T	Regional Rail	Future	2028 - 2037	the T	Extension of Line		$528
13	Scyene Line	Lawnview	Masters	4	East	East-Other	Regional Rail	Future	2028 - 2037	NCTCOG	New Corridor	TR1-10345.1	$192
13	Scyene Line	Masters	Lawson Road	8	East	East-Other	Regional Rail	Future	2028 - 2037	NCTCOG	New Corridor	TR1-10345.2	$384
14	Waxahachie Line	Downtown Dallas	City of Waxahachie	31	East	East-Other	Regional Rail	Future	2028 - 2037	RRCS	New Corridor	TR1-10335.0	$1,488
15	IH 35W Express	T&P Terminal	TX 114	21	West	West-Other	High-Intensity Bus	Future	2018 -2027	NCTCOG	New Corridor		$10
16	Chisholm Trail Express	Fort Worth ITC	Cleburne Amtrak Station	33	West	West-Other	High-Intensity Bus	Future	2018 -2027	NCTCOG	New Corridor		$18
17	US 75 Express	Parker Road Station (Plano)	North McKinney	13	East	East-Other	High-Intensity Bus	Future	2018 - 2027	NCTCOG	New Corridor		$10
18	IH 30 Express East	Managed Lane Western Terminus	Downtown Dallas East Transfer Center	21	West/East	Other	High-Intensity Bus	Programmed	Present - 2017	NCTCOG	New Corridor		$11
19	Spring Creek Parkway Express	Sam Rayburn Tollway	US 75	15	East	East-Other	High-Intensity Bus	Future	2018 - 2027	NCTCOG	New Corridor		$16
20	West/East Line	Downtown Fort Worth	Downtown Dallas	32	West/East	Other	High-Speed Rail	Future	2018 – 2027	FRA	New Corridor		$2,900

High-Speed Rail



Corridor-specific alignment, design, and operational characteristics for the intercity passenger, regional passenger, and freight rail systems will be determined through capacity evaluation and ongoing project development. Refined rail forecasts are necessary to determine technology and alignment in future rail corridors.

North Central Texas Council of Governments

March 2016

Submittal 0141 (Lisa Dickison, August 28, 2016)

From:	Lisa Dickison
To:	Mark Werner
Subject:	Comment about Texas-Oklahoma Passenger Rail
Date:	Sunday, August 28, 2016 4:05:36 PM

This is my Facebook post from a group that summarizes my thought on the proposed rail line coming through Waco.

MY PERSONAL TALKING POINTS SPECIFIC TO WACO

1. They want it connect to the Greyhound/Waco Transit station that already exists...in the middle of town. I'm concerned about having a train come in from the north and leave to the south and vice versa through SO MUCH existing business and housing.

2. We have trains running through town already. Nobody likes being near them. These are freight trains and they slow down to quite a slow speed while within the city limits. There are only a few per week. It has been suggested that a train would be going through every 30 minutes. Even if it was every two hours, that's a huge interruption in the peace and quiet of life in Waco. **0141-01**

3. Eminent domain. In other projects, we've been able to argue that land shouldn't be taken for a private entity. Land shouldn't be taken for a project that citizens do not want. There is a principle called "consent of the governed." Forcibly taking land, which will inevitably happen, should ONLY be used for a compelling public need. **0141-02**

4. No rail system in this nation operates in the black. Not a single one. In some places, it is acceptable such as the NYC subway system and the DC Metro. The net economic effect balances out. That won't happen with this one. **0141-03**

5. Building on the concept of "consent of the governed" in point 3, taxes are forcibly taken from taxpayers. The trade-off for this is that the funds will be used for the good of all citizens. I don't believe this is best for the citizens of Waco or the taxpayers of Texas.

6. They can do all the studies they want. I just don't believe that ridership will be sufficient to maintain the project even if it is built using taxpayer money and federal grants (which are also taxpayer money.)

7. I'm not riding the train unless it's for fun. If I need to go to Dallas or Austin, my ultimate destination is not likely to be within walking distance of the station. That means I would have to take mass transit which might get me a little closer to my destination or I would have to rent a car or take a taxi/Uber. That just increases the price of my trip. I could have just jumped in my car and made the trip and not be a slave to transit schedules or at the mercy the a driver's schedule. **0141-04**

8. I don't think it really saves any time. Traveling from Dallas to Austin in about an hour and a half would be great, but that doesn't include the time planning the trip, waiting for the train or waiting for local transportation. I'm not going to use it and few people I know would use it. People around here don't take trains. We have an Amtrak station in McGregor that I often just forget about. I never hear of anyone taking it unless it's a fun trip. They don't do enough business to justify a person to man the ticket office. **0141-05**

These are just my personal thoughts. Others have data and their thoughts. I believe that even this study is wasteful. I'd rather have another parallel highway to I-35. Yes, they'd have to take land for that, but it would be cheaper to maintain, would carry more people and would cause less disruption in our quiet lives. **0141-06**

--
Lisa Dickison

Twitter handle: LisaFayD
Email: [redacted]

Submittal 0142 (Jill Twark, August 28, 2016)

From: Jill Twark
To: Mark Werner
Subject: We Support Passenger Rail Lines in South Texas
Date: Sunday, August 28, 2016 10:57:01 AM

Dear Mr. Werner,

We just read in the "Brownsville Herald" that the Texas DOT is considering building a rail line from Brownsville to Laredo and/or San Antonio. Since moving to Brownsville last month, so that my husband and I can both take jobs at the University of Texas-Rio Grande Valley, we have witnessed the high traffic density between Brownsville and McAllen/Edinburg. Professors and students, among other local residents, are constantly moving back and forth between the two campuses, 60 miles apart.

0142-01

We therefore strongly support the creation of a rail connection that would run between these cities and also connect us to the existing rail lines in San Antonio and further north, east, and west. We both do not like driving our cars over long distances and would welcome the option of taking a train to get around the state of Texas, especially a fast train that would get us from city to city more efficiently than driving.

Thank you for working on this valuable transportation network.

Sincerely,
Dr. Jill Twark and Dr. Arno Forst
19 Casa Grande
Brownsville, TX 78521
Tel: 956-435-9705
Email: [redacted]

Submittal 0143 (Jill Twark, August 28, 2016)

From: [redacted]
To: Mark Werner
Subject: TxDOT Internet E-Mail
Date: Sunday, August 28, 2016 10:40:20 AM

Name: Ms. Jill Twark[redacted]
Address:
19 Casa Grande
Brownsville, TX 78521

Phone:
(956) 435-9705

Requested Contact Method: Email

Reason for Contact: Customer Service
Complaint: No

Comment: Dear Sir or Madam,
I strongly support the construction of a rail line from South Texas northward. I recently moved to Brownsville and have found traffic from Austin to San Antonio, and from McAllen/Edinburg to Brownsville to be quite heavy. Thus, connecting these communities to each other and all across the state would be very beneficial.

0143-01

Submittal 0144 (John Radovich, August 29, 2016)

From: John R
To: Mark Werner
Subject: TOPRS public comment
Date: Monday, August 29, 2016 12:06:40 AM

Thanks to TXDOT (and OK) working for passenger rail service. I have attended multiple presentations on the corridors including the August 11th one in Arlington which offered the findings.

I respectfully disagree with the concept of HSR for the segments south of DFW. The idea is nice but in today's environment it is a tough sell, the costs and timelines don't do us any favors. 0144-01

The Northern segment utilizing conventional service is much more rational and with a few more trains, "frequency greater than one a day" I think the ROI will be significant. Maintaining conventional operations on to the south will enable riders to stay put and not lose the 60-70?% cross platform drop that changing modes experiences.

Rick Williamson's approach did not work last time and I'll be on record saying that HSR is a non starter here all over again. Incremental or stair step improvements are doable, measurable and our young/old folks will be the riders singing your praises before your first mile of HSR exists.

Even staunch penny pinchers know we must do better; concrete is not "that better" that will grow Texas. Congestion relief provided by rail service will support and help buffer TXDOT's efforts to keep I35 in viable condition. 0144-02

John L. Radovich

800 Jaguar Lane

Dallas, Texas 75226

214-426-4100

[redacted]

Rec'd - 8/29/16 jas
IN RRD

Submittal 0145 (W. Bruce Ashton, August 24, 2016)

August 24, 2016
10510 Mt. Marcy
San Antonio, TX 78213

TXDOT RAIL DIVISION
ATT. MR. MARK WERNER
125 E 11th ST.
AUSTIN, TX 78704

RE: TEXAS-OKLAHOMA PASSENGER RAIL STUDY
CSJ#8300-00-018

The 2016 Texas-Oklahoma Passenger Rail Study speaks to the heart of the need for a central passenger rail system serving both states.

I support its development. While high speed rail (200+ mph) seems to be a good fit for Dallas to San Antonio, the best compromise is for higher speed service as this would be most readily available both for cost and offering reasonable travel times across the state between cities it would service. Most people will travel between intermediate stops rather than end point to end point. 0145-01

The need is there. If built, people will ride as demonstrated across the country most notable in California. A passenger rail system offers a transportation system that can be developed at a significantly lower cost that any complete expansion of I3 5. What is lacking is a dedicated funding source for development. This funding will only come about when there is sufficient pressure on our state legislators to develop such a plan. 0145-02

As proposed the only significant route debate is which service needs to be pursued in south Texas; direct to Laredo or branched out to Corpus Christ and the Valley. The first afford a possible link to Mexico. The second serves a larger population of Texas. 0145-03

Sincerely,

W. Bruce Ashton

W. Bruce Ashton

Submittal 0146 (Clare Barry, August 24, 2016)

Fold

Fold

Clare Barry
1505 Brentwood
Austin, TX 78757

AUSTIN TX 787
RIO GRANDE DISTRICT
24 AUG 2016 PM 5 L

Mark Werner, Rail Division
Texas Department of Transportation
125 E. 11th Street
Austin, TX 78701-2483

Tape

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78701-248099

Texas-Oklahoma Passenger Rail Study

Comment Form

We want to hear what people living and working in the IH-35 corridor think about the route and service alternatives that we plan to advance for additional study. Submit your comments by **August 29, 2016** by **mail**, **online** (http://www.txdot.gov/inside-txdot/projects/studies/statewide/texas-oklahoma-rail.html), or at a **public hearing.**

Do you agree with the recommendations?

Northern section

☐ Yes ☐ No (what would you change and why?) ☑ No opinion

I would like to see the Northern section incorporate, or at least coordinate closely with the Heartland flyer

Central section

☐ Yes ☐ No (what would you change and why?) ☑ No opinion 0146-01

I would like to see how the Lone Star Rail could be a part of the Central section. Also, what is Amtrak's Texas Eagle's involvement?

Southern section

☑ Yes ☐ No (what would you change and why?) ☐ No opinion 0146-02

I think it would be good to prioritize the different routes, eventually to build all of them. The connection to Mexico is very important. 0146-03

What can TxDOT look at as a part of the study in the future?

I'm very pleased with the proposal. Realizing that TxDOT can't advocate for (or against) projects, I would like to see the project developed further, and not put on the shelf. It would be helpful to have a list of funding options -- to begin preliminary design -- develop more detail. 0146-04

Name: Clare Barry

Address (optional): 1905 Brentwood, Austin ZIP code: 78757

Email (optional): [redacted] Phone (optional) 512·451·2356

(Texas Transportation Code, §201.811(a)(5)): check each of the following boxes that apply to you:

☐ I am employed by TxDOT ☐ I do business with TxDOT ☐ I could benefit monetarily from the project/item I'm commenting on

↳ Retired!

in cooperation with Oklahoma DOT
Texas Department of Transportation

TEXAS OKLAHOMA PASSENGER RAIL STUDY

REC'D 8/29/16 jal
IN RRD

Community Bank & Trust

August [illegible], 2016

TOM PARDAEN
VICE PRESIDENT
NMLS #1411532

Mr. Mark Werner
Project Manager, Rail Division
Texas Department of Transportation
125 E. 11th Street
Austin, TX 78701-2483

Dear Mr. Werner,

Thank you for the opportunity to comment on the Draft Environmental Impact Statement (Draft EIS) for the Texas-Oklahoma Passenger Rail Study (TOPRS).

The Program's Draft EIS identified three preferred alternatives for the Central Section: C4A High-Speed Rail, C4B High-Speed Rail, and C4C High-Speed Rail. The Draft EIS also identifies Waco as a potential station location.

I am writing to you today to convey my support for any of the three alternatives for a high-speed rail line along the I-35 corridor, and for designation of Waco as a station location. As a businessperson and resident, I recognize how vital a strong transportation infrastructure system is for both commerce and quality of life. I would like to thank the Texas Department of Transportation for taking the opportunity for this Tier 1 study to explore a multi-modal transportation system to meet our state's changing needs. 0147-01 0147-02 0147-03

As the heart of Texas, Waco is the economic hub and equidistant location between Dallas/Fort Worth and Austin. With a population of 235,000 and diverse indust rial base in the Waco MSA, we have the resources and manpower to support the demand and opportunity of this new transportation infrastructure. Further, such service will provide a viable alternative to commuting on I-35, and help to alleviate congestion on that nationally significant corridor. 0147-04

Passenger rail accessibility in Waco will benefit economically from the many assets of our community. Waco is home to over 25,000 students at Baylor University, Texas State Technical College, McLennan Community College and the University Center at MCC; further, Waco is home to the operations of Fortune 500 companies such as L-3 Communications Platform Integration, Mars, Inc., Coca-Cola, and Allergan.

Thank you for your time and consideration of my perspective on the future of high-speed passenger rail, and my support of Waco's connectivity to the line. I look forward to the Tier 2 design and review process, and thank TxDOT for your vision in exploring this mode of transportation for our state. 0147-05

Sincerely,

Tom Pardaen

Tom Pardaen

Submittal 0148 (Rachel Ramsey, August 26, 2016)

RGC'D 8/29/16 jst
IN RRD

August 26, 2016

Mr. Mark Werner
Project Manager, Rail Division
Texas Department of Transportation
125 E. 11th Street
Austin, TX 78701-2483

Dear Mr. Werner,

I am writing to you today in regards to the Texas-Oklahoma Passenger Rail Study. As a businessperson and resident, I recognize how vital a strong transportation infrastructure system is for both commerce and quality of life. I would like to thank the Texas Department of Transportation for taking time to complete the Tier 1 study to respond to our state's demographic growth and change. 0148-01

Please accept this letter in support of:

- Central Section Alternative Routes C2B, C4A and C4B; 0148-02
- Selection of Waco for a station location; and 0148-03
- Further study in a Tier 2 Design and Environmental Review. 0148-04

Waco is the economic hub and equidistant location between Dallas/Fort Worth and Austin. With a population of 235,000 and the diverse industry available in the Waco MSA, we have the resources and manpower to support the demand and opportunity provided by this new transportation infrastructure.

Thank you for your time and consideration. I look forward to the Tier 2 design and review process, and thank TxDOT for your vision in exploring this mode of transportation for our state.

Sincerely,

Rachel Ramsey

Rachel Ramsey

Troop Leader 7064 GSCTX

Submittal 0149 (Kyle Deaver, August 30, 2016)

CITY OF WACO

Office of the Mayor
Kyle Deaver
P.O. Box 2570
Waco, Texas 76702
254- 750-5750
www.waco-texas.com

August 30, 2016

Mr. Mark Werner
Project Manager
Texas Department of Transportation
125 E. 11th Street
Austin, TX 78701-2483

Dear Mr. Werner:

On behalf of the City of Waco, we would like to thank you for the opportunity to comment on the Draft Environmental Impact Statement for the Texas-Oklahoma Passenger Rail Program (Program). The City of Waco has endorsed the implementation of a high-speed passenger rail service in Texas.

The Program's Draft EIS identified three preferred alternatives for the Central Section: C4A High-Speed Rail, C4B High-Speed Rail, and C4C High-Speed Rail. The Draft EIS also identifies Waco as a potential station location. The preferred alternatives, as well as the designation of Waco as a potential station location are consistent with recommendations identified within Connections 2040. The City of Waco also concurs with the assessment that high-speed rail service is preferred over higher-speed rail, due to the higher estimated profitability and lower capital construction costs. In addition, we believe that high-speed passenger rail is of greater benefit to the Waco Metropolitan Area in terms of economic opportunity, jobs creation, and the redevelopment efforts of the City Center than higher-speed services. 0149-01 0149-02 0149-03

We understand that the alignments studied in the Draft EIS are preliminary. As the Program progresses to Tier 2 design and environmental review, we request that the Central Section preferred alternative routes expand the study area through downtown Waco to the west, between IH-35 and US Highway 84. We also request that the existing Waco Intermodal Center at 8th Street and Mary Avenue or a site in the immediate vicinity be considered as the location for the downtown Waco station. Adding a passenger rail connection complements the establishment of a planned Bus Rapid Transit (BRT) line, and could provide an opportunity for future transit-oriented development. 0149-04 0149-05

We appreciate our inclusion in this process and look forward to continuing our involvement as this important regional transportation program is further defined and evaluated. Please contact me if any additional information is needed.

Sincerely,

Kyle Deaver
Mayor

tm

CITY OF WACO

Office of the Mayor
Kyle Deaver
P.O. Box 2570
Waco, Texas 76702
254- 750-5750
www.waco-texas.com

August 30, 2016

Mr. Mark Werner
Project Manager
Texas Department of Transportation
125 E. 11th Street
Austin, TX 78701-2483

Dear Mr. Werner:

On behalf of the City of Waco, we would like to thank you for the opportunity to comment on the Draft Environmental Impact Statement for the Texas-Oklahoma Passenger Rail Program (Program). The City of Waco has endorsed the implementation of a high-speed passenger rail service in Texas.

The Program's Draft EIS identified three preferred alternatives for the Central Section: C4A High-Speed Rail, C4B High-Speed Rail, and C4C High-Speed Rail. The Draft EIS also identifies Waco as a potential station location. The preferred alternatives, as well as the designation of Waco as a potential station location are consistent with recommendations identified within Connections 2040. The City of Waco also concurs with the assessment that high-speed rail service is preferred over higher-speed rail, due to the higher estimated profitability and lower capital construction costs. In addition, we believe that high-speed passenger rail is of greater benefit to the Waco Metropolitan Area in terms of economic opportunity, jobs creation, and the redevelopment efforts of the City Center than higher-speed services.

We understand that the alignments studied in the Draft EIS are preliminary. As the Program progresses to Tier 2 design and environmental review, we request that the Central Section preferred alternative routes expand the study area through downtown Waco to the west, between IH-35 and US Highway 84. We also request that the existing Waco Intermodal Center at 8th Street and Mary Avenue or a site in the immediate vicinity be considered as the location for the downtown Waco station. Adding a passenger rail connection complements the establishment of a planned Bus Rapid Transit (BRT) line, and could provide an opportunity for future transit-oriented development.

We appreciate our inclusion in this process and look forward to continuing our involvement as this important regional transportation program is further defined and evaluated. Please contact me if any additional information is needed.

Sincerely,

Kyle Deaver
Mayor

tm

GREATER WACO CHAMBER

August 25, 2016

Mr. Mark Werner
Project Manager
Texas Department of Transportation
125 E. 11th Street
Austin, TX 78701-2483

Dear Mr. Werner,

I hope this note finds you well, enjoying the close to summer.

Thank you for the opportunity to comment on the Draft Environmental Impact Statement (Draft EIS) for the Texas-Oklahoma Passenger Rail Program (Program). As you know from our comments at the public hearing in Arlington, the Greater Waco Chamber of Commerce is supportive of high-speed rail in Texas, and in fact, support of high-speed rail has been adopted by our Board of Directors as a policy priority at both the state and federal levels. 0150-01

We believe that the demographic changes and population explosion which Texas is facing merit investment now in a robust multi-modal transportation infrastructure system. Having such a system in place will be vitally important in sustaining and further strengthening the economic growth of our state. Further, high-speed rail itself has the potential to be a part of that growth, and bring significant economic stimulus. 0150-02

For these reasons and many more, we support the continued study of all three of the preferred central section alternatives. Further, we stand ready to help in any way possible in establishing a station location in Waco. Waco's connectivity to any passenger rail line is vitally important not only to Waco, but to the entire Central Texas region. As the midpoint between Austin and Dallas, and with three thriving institutions of higher education and multiple Fortune 500 businesses, we believe Waco is the most logical choice for a station along the route. 0150-03 0150-04

We encourage the Texas Department of Transportation to secure funding, whether federal dollars or allocated from within the state budget, for the Tier 2 study. Thank you for your consideration, and we look forward to our continued involvement as you further explore this important transportation alternative for our state.

Regards,

Jessica Attas
Director of Public Policy

101 S. Third St. Waco TX 76701 • P.O. Box 1220 Waco TX 76703-1220 • 254.752.6551 • fax 254.752.6618 • WacoChamber.com

Submittal 0151 (John Lee Deaver, August 25, 2016)

RGC'S IN RRD 8/29/16 jal

WACO BUSINESS LEAGUE
P.O. Box 1543
Waco, Texas 76703

August 25, 2016

Mr. Mark Werner
Project Manager
Texas Department of Transportation
125 E. 11th Street
Austin, TX 78701-2483

Re: Texas- Oklahoma Passenger Rail Study Preliminary EIS

Dear Mr. Werner,

The Waco Business League enthusiastically supports the route alternatives proposed by the draft service-level environmental impact statement, as part of the broader Texas-Oklahoma Passenger Rail Study. 0151-01

The State of Texas must be forward-thinking and innovative in exploring and pursing viable alternatives to meet the transportation demands of the twenty-first century, and we believe high speed rail through Waco and Central Texas is an integral part of that plan. 0151-02

The recent explosion of new business in the vibrant downtown district, the continued growth of industry, the major influence of the local colleges and Baylor University, and the burgeoning cultural activity, all necessitate a stop in Waco along any of the proposed routes in the central section. The Waco Business League is ready to support the new "Waco Station" in any and every way it can. 0151-03

Sincerely,

John Lee Deaver

John Lee Deaver
Secretary/Treasurer, Executive Board
Chairman, Transportation Committee

Submittal 0152 (Bart Cooper, August 26, 2016)

2011 Clover Ridge
McGregor, TX 76657
254.722.7764

08/26/2016

Mr. Mark Werner
Project Manager, Rail Division
Texas Department of Transportation
125 E. 11th Street
Austin, TX 78701-2483

Dear Mr. Werner

Thank you for the opportunity to comment on the Draft Environmental Impact Statement (Draft EIS) for the Texas-Oklahoma Passenger Rail Study (TOPRS).

The Program's Draft EIS identified three preferred alternatives for the Central Section: C4A High-Speed Rail, C4B High-Speed Rail, and C4C High-Speed Rail. The Draft EIS also identifies Waco as a potential station location.

I am writing to you today to convey my support for any of the three alternatives for a high-speed rail line along the I-35 corridor, and for designation of Waco as a station location. As a businessperson and resident, I recognize how vital a strong transportation infrastructure system is for both commerce and quality of life. I would like to thank the Texas Department of Transportation for taking the opportunity for this Tier 1 study to explore a multi-modal transportation system to meet our state's changing needs. 0152-01 0152-02 0152-03

As the heart of Texas, Waco is the economic hub and equidistant location between Dallas/Fort Worth and Austin. With a population of 235,000 and diverse industrial base in the Waco MSA, we have the resources and manpower to support the demand and opportunity of this new transportation infrastructure. Further, such service will provide a viable alternative to commuting on I-35, and help to alleviate congestion on that nationally significant corridor. 0152-04

Passenger rail accessibility in Waco will benefit economically from the many assets of our community. Waco is home to over 25,000 students at Baylor University, Texas State Technical College, McLennan Community College and the University Center at MCC; further, Waco is home to the operations of Fortune 500 companies such as L-3 Communications Platform Integration, Mars, Inc., Coca-Cola, and Allergan.

Thank you for your time and consideration of my perspective on the future of high-speed passenger rail, and my support of Waco's connectivity to the line. I look forward to the Tier 2 design and review process, and thank TxDOT for your vision in exploring this mode of transportation for our state. 0152-05

Bart Cooper

Submittal 0153 (David Garland, August 29, 2016)

BAYLOR
UNIVERSITY

August 29, 2016

Mr. Mark Werner
Project Manager, Rail Division
Texas Department of Transportation
125 E. 11th Street
Austin, TX 78701-2483

Dear Mr. Werner,

Thank you for the opportunity to offer comment on the Draft Environmental Impact Statement (EIS) for the Texas-Oklahoma Passenger Rail Study (TOPRS).

As a flourishing private Christian university and nationally ranked research institution whose students hail from all 50 states, the District of Columbia, and 89 countries, Baylor University welcomes and supports high-speed rail through Central Texas and specifically the opportunity for a station location in Waco. The proposed high-speed rail would be most advantageous to current and prospective students, faculty and staff as well as tourists and visitors. **0153-01** **0153-02** **0153-03**

With a thriving Texas economy, which attracts businesses and families to Texas, the need for ever more efficient, affordable transportation is critical. The fruition of high speed rail through the heavily-traveled central Texas corridor could help satisfy that need.

Each of the Central section alternative routes -- C4A High-Speed Rail, C4B High-Speed Rail, and C4C High-Speed Rail -- seems promising and deserving of further study. I look forward to the Tier 2 design and the next review process. **0153-04**

Thank you for your work on this project.

Sincerely,

David E. Garland, Ph.D.
Interim President
Baylor University

DAVID E. GARLAND
INTERIM PRESIDENT
One Bear Place #97096 • Waco, TX 76798-7096 • (254) 710-3555

Submittal 0154 (K. Paul Holt, August 26, 2016)

Central Texas Chapter

The Associated General Contractors of America, Inc.

26 August 2016

Mr. Mark Werner
Project Manager, Rail Division
Texas Department of Transportation
125 E. 11th Street
Austin, TX 78701-2483

Mr. Werner,

The CentexAGC began discussion and concluded with support for the Texas Oklahoma Passenger Rail Study as early as March 2014. **0154-01**
Our organization is made up of 240 commercial contractor related members in eight Central Texas counties.

We recognize that IH35 does not, and cannot possibly keep up with the civilian and freight hauling demands now, or in the future. That is why we strongly support the following:

1. Central Section Alternative Routes C2B, C4A and C4B;
2. Selection of Waco for a station location; and **0154-02**
3. Further study in a Tier 2 Design and Environmental Review. **0154-03**

The Waco/McLennan County MSA is an economic hub 235,000 citizens halfway between DFW and Austin/Travis County. A high speed rail alternative would result in less pollution, and enhance passenger and driving safety along IH35. **0154-04** **0154-05**

Thank you for the opportunity to support this vital economic and safety issue for Central Texas. We look forward to participating in the tier 2 study.

Best regards,

K. Paul Holt
President/CEO

4500 West Waco Drive
Waco, Texas 76710-7047

www.CentexAGC.org

254.772.5400 :Voice
254.772.5451 :Fax

Submittal 0155 (M. Brian Aynesworth, August 26, 2016)

Southwestern Commercial Properties, LLC
M. Brian Aynesworth III, President
P.O. Box 8137
Waco, TX 76714
(254) 744-0769
[redacted]

August 26, 2016

Mr. Mark Werner
Project Manager, Rail Division
Texas Department of Transportation
125 E. 11th Street
Austin, TX 78701-2483

RE: Support of High Speed Rail in Central Texas

Dear Mr. Werner,

I am writing to you today in regards to the Texas-Oklahoma Passenger Rail Study. As a businessperson and resident, I recognize how vital a strong transportation infrastructure system is for both commerce and quality of life. I would like to thank the Texas Department of Transportation for taking time to complete the Tier 1 study to respond to our state's demographic growth and change. 0155-01

Please accept this letter in support of:

- Central Section Alternative Routes C2B, C4A and C4B; 0155-02
- Selection of Waco for a station location; and 0155-03
- Further study in a Tier 2 Design and Environmental Review. 0155-04

Waco is the economic hub and equidistant location between Dallas/Fort Worth and Austin. With a population of 235,000 and the diverse industry available in the Waco MSA, we have the resources and manpower to support the demand and opportunity provided by this new transportation infrastructure.

Thank you for your time and consideration. I look forward to the Tier 2 design and review process, and thank TxDOT for your vision in exploring this mode of transportation for our state.

Sincerely,

M. Brian Aynesworth III

M. Brian Aynesworth, III

President

MBA/tn

BRAZOS HIGHER EDUCATION SERVICE CORPORATION, INC.

2600 Washington Ave.
P.O. Box 1308
Waco, Texas 76703-1308
(254) 753-0915
Fax (254) 754-0267

REC'D 8/29/16 Jah
IN RRD

August 26, 2016

Mr. Mark Werner
Project Manager, Rail Division
Texas Department of Transportation
125 E. 11th Street
Austin, TX 78701-2483

RE: Texas-Oklahoma-Passenger Rail Study (TOPRS)

Dear Mr. Werner:

Thank you for making it possible to receive written comments concerning the TOPRS consideration. The program is still in draft form and three proposed alternatives are being considered, one or more of which identifies Waco as a potential station.

This is to convey to you my support of the concept of the fast train between D/FW and Houston, running parallel along the I-35 corridor. As a fourth generation native of Central Texas, I have been fortunate to be exposed to the economic growth and development of the area for an extended period of time. Three things determine the future of our area: (1) water, (2) education, and (3) transportation. In the past, our forefathers have been wise in supporting development of resources for water, Lake Whitney and Lake Waco. In education, again our forefathers have established three institutions of higher education in Waco: Baylor University, Texas State Technical College, and McLennan Community College, which is made up of approximately 25,000 students. **0156-01**

Waco has been the heart and the hub of economic development in Central Texas since before the Civil War when cotton was king and the Brazos River was at Waco early on with bridges. The International Great Northern Railroad was constructed from Fort Worth to Houston in 1900-1905 and that old right of way I understand has mostly been abandoned, and is the shortest distance between the two communities.

When you make your final determination and solve the problem of moving large numbers of people as fast, efficiently and economically as possible, you do not want to not create new problems of the right of way being bogged down through highly dense residential areas or commercial properties that would require crossings at grade and thereby creating future problems for the operation of the transportation system. We used to say, "Make sure that the highways go through your town and not by your town." In this situation, I believe it is just the opposite, not to

run the high speed through the town, but adjacent to the town with local access to the roads, highways, city buses and air transportation, which will benefit everyone and enhance the value of the assets within the communities of Texas.

You cannot stop at every community and you cannot build multiple crossings at grade and have a high speed train if you have public safety at your grade crossing.

Your dilemma is similar to that of the airplanes. By the time you take off and get to the altitude and speed you want, it is time to land. You spend more than double your fuel starting and stopping before you ever get to your destination.

I personally support your concept of the high speed train through the Central Texas area.

Thank you for your time and consideration for allowing me to express my support of the Waco connection to the TOPRS.

I look forward to your next step in the tier and design in the process. Thanks to the Texas Department of Transportation and to you personally for allowing our input. 0156-02

Respectfully submitted,

Murray Watson, Jr.
President

MW/sd

Submittal 0157 (Felicia Goodman, August 29, 2016)

COOPER FOUNDATION

1801 Austin Avenue • Waco, Texas 76701
(254) 754-0315 • [redacted]
www.cooperfdn.org

August 29, 2016

Mr. Mark Werner
Project Manager, Rail Division
Texas Department of Transportation
125 E. 11th Street
Austin, TX 78701-2483

Dear Mr. Werner,

I am writing to you today in regard to the Texas-Oklahoma Passenger Rail Study. As a resident and community leader, I recognize how vital a strong transportation infrastructure system is for both commerce and quality of life. I would like to thank the Texas Department of Transportation for taking time to complete the Tier 1 study to respond to our state's demographic growth and change. **0157-01**

Please accept this letter in support of:

- **Central Section Alternative Routes C2B, C4A and C4B;** **0157-02**
- **Selection of Waco for a station location; and** **0157-03**
- **Further study in a Tier 2 Design and Environmental Review.** **0157-04**

Located in the heart of Texas, Waco is an economic hub with an equidistant location between Dallas/Fort Worth and Austin. With a population of 235,000 and the diverse industry available in the Waco MSA, we have the resources and manpower to support the demand and opportunity provided by this new transportation infrastructure.

Thank you for your time and consideration. I look forward to the Tier 2 design and review process, and thank TxDOT for your vision in exploring this mode of transportation for our state.

Sincerely,

Felicia Chase Goodman
Executive Director

Submittal 0158 (David Tekell, August 27, 2016)

THE LAW OFFICES OF
TEKELL & ATKINS, L.L.P.

DAVID G. TEKELL**†
J. PATRICK ATKINS
ANGELA EADS TEKELL†
HENRY W. WRIGHT
**BOARD CERTIFIED, PERSONAL INJURY TRIAL LAW
TEXAS BOARD OF LEGAL SPECIALIZATION
BOARD CERTIFIED, CONSUMER & COMMERCIAL LAW
TEXAS BOARD OF LEGAL SPECIALIZATION
† MEMBER, COLLEGE OF THE STATE BAR OF TEXAS

5400 BOSQUE BLVD., SUITE 600
CENTRAL TOWER
WACO, TEXAS 76710
TELEPHONE (254) 776-5095
FACSIMILE (254) 776-5091

August 27, 2016

Mr. Mark Werner
Project Manager, Rail Division
Texas Department of Transportation
125 E. 11th Street
Austin, TX 78701-2483

Dear Mr. Werner,

Thank you for the opportunity to comment on the Draft Environmental Impact Statement (Draft EIS) for the Texas-Oklahoma Passenger Rail Study (TOPRS).

The Program's Draft EIS identified three preferred alternatives for the Central Section: C4A High-Speed Rail, C4B High-Speed Rail, and C4C High-Speed Rail. The Draft EIS also identifies Waco as a potential station location.

I am writing to you today to convey my support for any of the three alternatives for a high-speed rail line along the I-35 corridor, and for designation of Waco as a station location. As a businessperson and resident, I recognize how vital a strong transportation infrastructure system is for both commerce and quality of life. I would like to thank the Texas Department of Transportation for taking the opportunity for this Tier 1 study to explore a multi-modal transportation system to meet our state's changing needs. 0158-01 0158-02 0158-03

As the heart of Texas, Waco is the economic hub and equidistant location between Dallas/Fort Worth and Austin. With a population of 235,000 and diverse industrial base in the Waco MSA, we have the resources and manpower to support the demand and opportunity of this new transportation infrastructure. Further, such service will provide a viable alternative to commuting on I-35, and help to alleviate congestion on that nationally significant corridor. 0158-04

Passenger rail accessibility in Waco will benefit economically from the many assets of our community. Waco is home to over 25,000 students at Baylor University, Texas State Technical College, McLennan Community College and the University Center at MCC; further, Waco is home to the operations of Fortune 500 companies such as L-3 Communications Platform Integration, Mars, Inc., Coca-Cola, and Allergan.

Thank you for your time and consideration of my perspective on the future of high-speed passenger rail, and my support of Waco's connectivity to the line. I look forward to the Tier 2 design and review process, and thank TxDOT for your vision in exploring this mode of transportation for our state. 0158-05

Yours very truly,

TEKELL & ATKINS, L.L.P.

By: _____
David G. Tekell

Wm. Taylor & Co.

General Contractors

August 26, 2016

Mr. Mark Werner
Project Manager, Rail Division
Texas Department of Transportation
125 E. 11th Street
Austin, TX 78701-2483

Dear Mr. Werner,

Thank you for the opportunity to comment on the Draft Environmental Impact Statement (Draft EIS) for the Texas-Oklahoma Passenger Rail Study (TOPRS). The Program's Draft EIS identified three preferred alternatives for the Central Section: C4A High-Speed Rail, C4B High-Speed Rail, and C4C High-Speed Rail. The Draft EIS also identifies Waco as a potential station location.

I am writing to you today to convey my support for any of the three alternatives for a high-speed rail line along the I-35 corridor, and for designation of Waco as a station location. As a businessperson and resident, I recognize how vital a strong transportation infrastructure system is for both commerce and quality of life. I would like to thank the Texas Department of Transportation for taking the opportunity for this Tier 1 study to explore a multi-modal transportation system. 0159-01 0159-02 0159-03

As the heart of Texas, Waco is the economic hub and equidistant location between Dallas/Fort Worth and Austin. With a population of 235,000 and diverse industrial base in the Waco MSA, we have the resources and manpower to support the demand and opportunity of this new transportation infrastructure. Further, such service will provide a viable alternative to commuting on I-35, and help to alleviate congestion on that nationally significant corridor. 0159-04

Passenger rail accessibility in Waco will benefit economically from the many assets of our community. Waco is home to over 25,000 students at Baylor University, Texas State Technical College, McLennan Community College and the University Center at MCC; further, Waco is home to the operations of Fortune 500 companies such as L-3 Communications Platform Integration, Mars, Inc., Coca-Cola, and Allergan.

I look forward to the Tier 2 design and review process, and thank TxDOT for your vision in exploring this mode of transportation for our state. 0159-05

Regards,

W. Wintford Taylor III
President

Dedicated to Building Excellence Since 1954 in Texas, Louisiana & Mississippi

220 Kelly Drive
Waco, Texas 76710

Phone 254-772-9675
Fax 254-772-1477

www.WmTaylorCo.com

THE ASSOCIATED GENERAL CONTRACTORS OF AMERICA

Submittal 0160 (Frances Good, August 26, 2016)

August 26, 2016

Mr. Mark Werner
Project Manager, Rail Division
Texas Department of Transportation
125 E. 11th Street
Austin, TX 78701-2483

Dear Mr. Werner,

Thank you for the opportunity to comment on the Draft Environmental Impact Statement (Draft EIS) for the Texas-Oklahoma Passenger Rail Study (TOPRS).

The Program's Draft EIS identified three preferred alternatives for the Central Section: C4A High-Speed Rail, C4B High-Speed Rail, and C4C High-Speed Rail. The Draft EIS also identifies Waco as a potential station location.

I am writing to you today to convey my support for any of the three alternatives for a high-speed rail line along the I-35 corridor, and for designation of Waco as a station location. As a businessperson and resident, I recognize how vital a strong transportation infrastructure system is for both commerce and quality of life. I would like to thank the Texas Department of Transportation for taking the opportunity for this Tier 1 study to explore a multi-modal transportation system to meet our state's changing needs. 0160-01 0160-02 0160-03

As the heart of Texas, Waco is the economic hub and equidistant location between Dallas/Fort Worth and Austin. With a population of 235,000 and diverse industrial base in the Waco MSA, we have the resources and manpower to support the demand and opportunity of this new transportation infrastructure. Further, such service will provide a viable alternative to commuting on I-35, and help to alleviate congestion on that nationally significant corridor. 0160-04

Passenger rail accessibility in Waco will benefit economically from the many assets of our community. Waco is home to over 25,000 students at Baylor University, Texas State Technical College, McLennan Community College and the University Center at MCC; further, Waco is home to the operations of Fortune 500 companies such as L-3 Communications Platform Integration, Mars, Inc., Coca-Cola, and Allergan.

Thank you for your time and consideration of my perspective on the future of high-speed passenger rail, and my support of Waco's connectivity to the line. I look forward to the Tier 2 design and review process, and thank TxDOT for your vision in exploring this mode of transportation for our state. 0160-05

Sincerely,

Frances J. Good

Coldwell Banker Jim Stewart, Realtors

Submittal 0161 (Alissa Cady, August 26, 2016)

GREATER Hewitt CHAMBER

August 26, 2016

Mr. Mark Werner
Project Manager, Rail Division
Texas Department of Transportation
125 E. 11th Street
Austin, TX 78701-2483

Dear Mr. Werner,

Thank you for the opportunity to comment on the Draft Environmental Impact Statement (Draft EIS) for the Texas-Oklahoma Passenger Rail Study (TOPRS).

The Program's Draft EIS identified three preferred alternatives for the Central Section: C4A High-Speed Rail, C4B High-Speed Rail, and C4C High-Speed Rail. The Draft EIS also identifies Waco as a potential station location.

The Greater Hewitt Chamber is conveying support for any of the three alternatives for a high-speed rail line along the I-35 corridor, and for designation of Waco as a station location. Strong transportation systems are in our best interest to secure quality life and manage the growth we have experienced. I would like to thank the Texas Department of Transportation for taking the opportunity for this Tier 1 study to explore a multi-modal transportation system to meet our state's changing needs. 0161-01 0161-02 0161-03

As the heart of Texas, Waco is the economic hub and equidistant location between Dallas/Fort Worth and Austin. With a population of 235,000 and diverse industrial base in the Waco MSA, we have the resources and manpower to support the demand and opportunity of this new transportation infrastructure. Further, such service will provide a viable alternative to commuting on I-35, and help to alleviate congestion on that nationally significant corridor. 0161-04

Passenger rail accessibility in Waco will benefit economically from the many assets of our community. Waco is home to over 25,000 students at Baylor University, Texas State Technical College, McLennan Community College and the University Center at MCC. Waco is also home to the operations of Fortune 500 companies such as L-3 Communications Platform Integration, Mars, Inc., Coca-Cola and Allergan.

Thank you for your time and consideration of my perspective on the future of high-speed passenger rail, and my support of Waco's connectivity to the line. I look forward to the Tier 2 design and review process, and thank TxDOT for your vision in exploring this mode of transportation for our state. 0161-05

Sincerely,

Alissa Cady, Executive Director
Greater Hewitt Chamber of Commerce

Submittal 0162 (Alissa Cady, August 26, 2016)

GREATER Hewitt CHAMBER

August 26, 2016

Mr. Mark Werner
Project Manager, Rail Division
Texas Department of Transportation
125 E. 11th Street
Austin, TX 78701-2483

Dear Mr. Werner,

I am writing to you today in regards to the Texas-Oklahoma Passenger Rail Study. As a businessperson and resident, I recognize how vital a strong transportation infrastructure system is for both commerce and quality of life. I would like to thank the Texas Department of Transportation for taking time to complete the Tier 1 study to respond to our state's demographic growth and change. 0162-01

Please accept this letter in support of:

- Central Section Alternative Routes C2B, C4A and C4B; 0162-02
- Selection of Waco for a station location; and 0162-03
- Further study in a Tier 2 Design and Environmental Review. 0162-04

Waco is the economic hub and equidistant location between Dallas/Fort Worth and Austin. With a population of 235,000 and the diverse industry available in the Waco MSA, we have the resources and manpower to support the demand and opportunity provided by this new transportation infrastructure.

Thank you for your time and consideration. I look forward to the Tier 2 design and review process, and thank TxDOT for your vision in exploring this mode of transportation for our state.

Sincerely,

Alissa Cady
Executive Director
Greater Hewitt Chamber of Commerce

Submittal 0163 (Jon Bosley, August 26, 2016)

08/26/2016

Mr. Mark Werner
Project Manager, Rail Division
Texas Department of Transportation
125 E. 11th Street
Austin, TX 78701-2483

Dear Mr. Werner,

Thank you for the opportunity to comment on the Draft Environmental Impact Statement (Draft EIS) for the Texas-Oklahoma Passenger Rail Study (TOPRS).

The Program's Draft EIS identified three preferred alternatives for the Central Section: C4A High-Speed Rail, C4B High-Speed Rail, and C4C High-Speed Rail. The Draft EIS also identifies Waco as a potential station location.

I am writing to you today to convey my support for any of the three alternatives for a high-speed rail line along the I-35 corridor, and for designation of Waco as a station location. 0163-01 0163-02 As a businessperson and resident, I recognize how vital a strong transportation infrastructure system is for both commerce and quality of life. 0163-03 I would like to thank the Texas Department of Transportation for taking the opportunity for this Tier 1 study to explore a multi-modal transportation system to meet our state's changing needs.

As the heart of Texas, Waco is the economic hub and equidistant location between Dallas/Fort Worth and Austin. With a population of 235,000 and diverse industrial base in the Waco MSA, we have the resources and manpower to support the demand and opportunity of this new transportation infrastructure. Further, such service will provide a viable alternative to commuting on I-35, and help to alleviate congestion on that nationally significant corridor. 0163-04

Passenger rail accessibility in Waco will benefit economically from the many assets of our community. Waco is home to over 25,000 students at Baylor University, Texas State Technical College, McLennan Community College and the University Center at MCC; further, Waco is home to the operations of Fortune 500 companies such as L-3 Communications Platform Integration, Mars, Inc., Coca-Cola, and Allergan.

Thank you for your time and consideration of my perspective on the future of high-speed passenger rail, and my support of Waco's connectivity to the line. I look forward to the Tier 2 design and review process, and thank TxDOT for your vision in exploring this mode of transportation for our state. 0163-05

Sincerely,

Jon Bosley

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2100 Washington Ave.
Waco TX 76701
Phone: (254) 235 8688
Fax: (254) 235 8702
www.lonestaryellowpages.com

Submittal 0164 (Jon Bosley, August 26, 2016)

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LONE STAR
ADVERTISING, LLC

08/26/2016

Mr. Mark Werner
Project Manager, Rail Division
Texas Department of Transportation
125 E. 11th Street
Austin, TX 78701-2483

Dear Mr. Werner,

I am writing to you today in regards to the Texas-Oklahoma Passenger Rail Study. As a businessperson and resident, I recognize how vital a strong transportation infrastructure system is for both commerce and quality of life. I would like to thank the Texas Department of Transportation for taking time to complete the Tier 1 study to respond to our state's demographic growth and change. 0164-01

Please accept this letter in support of:

- Central Section Alternative Routes C2B, C4A and C4B; 0164-02
- Selection of Waco for a station location; and 0164-03
- Further study in a Tier 2 Design and Environmental Review. 0164-04

Waco is the economic hub and equidistant location between Dallas/Fort Worth and Austin. With a population of 235,000 and the diverse industry available in the Waco MSA, we have the resources and manpower to support the demand and opportunity provided by this new transportation infrastructure.

Thank you for your time and consideration. I look forward to the Tier 2 design and review process, and thank TxDOT for your vision in exploring this mode of transportation for our state.

Sincerely,

Jon Bosley

Lone Star Advertising, LLC
"The Waco Pages" "The Tri-County Pages"
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Waco TX 76701
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Fax: (254) 235 8702
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GREATER WACO CHAMBER™

August 26, 2016

Submittal 0165 (Matthew Meadors, August 26, 2016)

Mr. Mark Werner
Project Manager, Rail Division
Texas Department of Transportation
125 E. 11th Street
Austin, TX 78701-2483

Dear Mr. Werner,

Thank you for the opportunity to comment on the Draft Environmental Impact Statement (Draft EIS) for the Texas-Oklahoma Passenger Rail Study (TOPRS).

The Program's Draft EIS identified three preferred alternatives for the Central Section: C4A High-Speed Rail, C4B High-Speed Rail, and C4C High-Speed Rail. The Draft EIS also identifies Waco as a potential station location. I am writing to you today to convey my support for any of the three alternatives for a high-speed rail line along the I-35 corridor, and for designation of Waco as a station location. **0165-01** **0165-02**

The Greater Waco Chamber of Commerce is a regional chamber of commerce that represents the needs and interests of approximately 1,600 member firms throughout greater Waco, and is tasked with working in a collaborative manner with key strategic partners to help existing business and industry grow and prosper, and attract new business, industry, and investment into our marketplace.

As an organization dedicated to economic growth, I recognize how vital a strong transportation infrastructure system is for both commerce and quality of life. I would like to thank the Texas Department of Transportation for taking the opportunity for this Tier 1 study to explore a multi-modal transportation system to meet our state's changing needs. **0165-03**

As the heart of Texas, Waco is the economic hub and equidistant location between Dallas/Fort Worth and Austin. With a population of 235,000 and diverse industrial base in the Waco MSA, we have the resources and manpower to support the demand and opportunity of this new transportation infrastructure. Further, such service will provide a viable alternative to commuting on I-35, and help to alleviate congestion on that nationally significant corridor. **0165-04**

Thank you for your time and consideration of our perspective as the business community of the Greater Waco area on the future of high-speed passenger rail, and our support of Waco's connectivity to the line. I look forward to the Tier 2 design and review process, and thank TxDOT for your vision in exploring this mode of transportation for our state. **0165-05**

Sincerely,

Matthew T. Meadors
President/CEO
Greater Waco Chamber

RICK SHELDON
R·E·A·L E·S·T·A·T·E

August 26, 2016

Mr. Mark Werner
Project Manager, Rail Division
Texas Department of Transportation
125 E. 11th Street
Austin, TX 78701-2483

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Thank you for the opportunity to comment on the Draft Environmental Impact Statement (Draft EIS) for the Texas-Oklahoma Passenger Rail Study (TOPRS).

The Program's Draft EIS identified three preferred alternatives for the Central Section: C4A High-Speed Rail, C4B High-Speed Rail, and C4C High-Speed Rail. The Draft EIS also identifies Waco as a potential station location.

I am writing to you today to convey my support for any of the three alternatives for a high-speed rail line along the I-35 corridor, and for designation of Waco as a station location. As a businessperson and resident, I recognize how vital a strong transportation infrastructure system is for both commerce and quality of life. I would like to thank the Texas Department of Transportation for taking the opportunity for this Tier 1 study to explore a multi-modal transportation system to meet our state's changing needs. 0166-01 0166-02 0166-03

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Passenger rail accessibility in Waco will benefit economically from the many assets of our community. Waco is home to over 25,000 students at Baylor University, Texas State Technical College, McLennan Community College and the University Center at MCC; further, Waco is home to the operations of Fortune 500 companies such as L-3 Communications Platform Integration, Mars, Inc., Coca-Cola, and Allergan.

Thank you for your time and consideration of my perspective on the future of high-speed passenger rail, and my support of Waco's connectivity to the line. I look forward to the Tier 2 design and review process, and thank TxDOT for your vision in exploring this mode of transportation for our state. 0166-05

Sincerely,

Rick Sheldon
Rick Sheldon Real Estate, LLC

601 SONTERRA
SAN ANTONIO, TEXAS 78258
210/490-2500 • FAX 210/490-4465

Submittal 0167 (Lisa Sheldon, August 26, 2016)

RICK SHELDON
R·E·A·L E·S·T·A·T·E

August 26, 2016

Mr. Mark Werner
Project Manager, Rail Division
Texas Department of Transportation
125 E. 11th Street
Austin, TX 78701-2483

Dear Mr. Werner,

I am writing to you today in regards to the Texas-Oklahoma Passenger Rail Study. As a businessperson and resident, I recognize how vital a strong transportation infrastructure system is for both commerce and quality of life. I would like to thank the Texas Department of Transportation for taking time to complete the Tier 1 study to respond to our state's demographic growth and change. 0167-01

Please accept this letter in support of:

- Central Section Alternative Routes C2B, C4A and C4B; 0167-02
- Selection of Waco for a station location; and 0167-03
- Further study in a Tier 2 Design and Environmental Review. 0167-04

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Thank you for your time and consideration. I look forward to the Tier 2 design and review process, and thank TxDOT for your vision in exploring this mode of transportation for our state.

Sincerely,

Lisa Sheldon

Lisa Sheldon
Rick Sheldon Real Estate, LLC

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SAN ANTONIO, TEXAS 78258
210/490-2500 • FAX 210/490-4465

RICK SHELDON
R·E·A·L E·S·T·A·T·E

August 26, 2016

Mr. Mark Werner
Project Manager, Rail Division
Texas Department of Transportation
125 E. 11th Street
Austin, TX 78701-2483

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Please accept this letter in support of:

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- Selection of Waco for a station location; and 0168-03
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Sincerely,

Lauren Sheldon

Lauren Sheldon
Rick Sheldon Real Estate, LLC

601 SONTERRA
SAN ANTONIO, TEXAS 78258
210/490-2500 • FAX 210/490-4465

RICK SHELDON
R·E·A·L E·S·T·A·T·E

August 26, 2016

Mr. Mark Werner
Project Manager, Rail Division
Texas Department of Transportation
125 E. 11th Street
Austin, TX 78701-2483

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Sincerely,

Larissa Sheldon

Larissa Sheldon
Rick Sheldon Real Estate, LLC

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SAN ANTONIO, TEXAS 78258
210/490-2500 • FAX 210/490-4465

RICK SHELDON
R·E·A·L E·S·T·A·T·E

August 26, 2016

Mr. Mark Werner
Project Manager, Rail Division
Texas Department of Transportation
125 E. 11th Street
Austin, TX 78701-2483

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The Program's Draft EIS identified three preferred alternatives for the Central Section: C4A High-Speed Rail, C4B High-Speed Rail, and C4C High-Speed Rail. The Draft EIS also identifies Waco as a potential station location.

I am writing to you today to convey my support for any of the three alternatives for a high-speed rail line along the I-35 corridor, and for designation of Waco as a station location. As a businessperson, I recognize how vital a strong transportation infrastructure system is for both commerce and quality of life. I would like to thank the Texas Department of Transportation for taking the opportunity for this Tier 1 study to explore a multi-modal transportation system to meet our state's changing needs. 0170-01 0170-02 0170-03

As the heart of Texas, Waco is the economic hub and equidistant location between Dallas/Fort Worth and Austin. With a population of 235,000 and diverse industrial base in the Waco MSA, we have the resources and manpower to support the demand and opportunity of this new transportation infrastructure. Further, such service will provide a viable alternative to commuting on I-35, and help to alleviate congestion on that nationally significant corridor. 0170-04

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Thank you for your time and consideration of my perspective on the future of high-speed passenger rail, and my support of Waco's connectivity to the line. I look forward to the Tier 2 design and review process, and thank TxDOT for your vision in exploring this mode of transportation for our state. 0170-05

Sincerely,

Bert Bryan
Rick Sheldon Real Estate, LLC

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SAN ANTONIO, TEXAS 78258
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Submittal 0171 (Nancy Hiatt, August 26, 2016)

RICK SHELDON
R·E·A·L E·S·T·A·T·E

August 26, 2016

Mr. Mark Werner
Project Manager, Rail Division
Texas Department of Transportation
125 E. 11th Street
Austin, TX 78701-2483

Dear Mr. Werner,

Thank you for the opportunity to comment on the Draft Environmental Impact Statement (Draft EIS) for the Texas-Oklahoma Passenger Rail Study (TOPRS).

The Program's Draft EIS identified three preferred alternatives for the Central Section: C4A High-Speed Rail, C4B High-Speed Rail, and C4C High-Speed Rail. The Draft EIS also identifies Waco as a potential station location.

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Thank you for your time and consideration of my perspective on the future of high-speed passenger rail, and my support of Waco's connectivity to the line. I look forward to the Tier 2 design and review process, and thank TxDOT for your vision in exploring this mode of transportation for our state. 0171-05

Sincerely,

Nancy Hiatt
Rick Sheldon Real Estate, LLC

601 SONTERRA
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Submittal 0172 (Mike Anderson, August 26, 2016)

APCS, LLC
Mike Anderson, President
3819 Towne Crossing, Suite 200
Mesquite TX 75150
Phone 972-285-0141 Fax 972-698-9238

August 26, 2016

Mr. Mark Werner
Project Manager, Rail Division
Texas Department of Transportation
125 E. 11th Street
Austin, TX 78701-2483

Dear Mr. Werner,

I am writing to you today in regards to the Texas-Oklahoma Passenger Rail Study. As a businessperson, I recognize how vital a strong transportation infrastructure system is for both commerce and quality of life. I would like to thank the Texas Department of Transportation for taking time to complete the Tier 1 study to respond to our state's demographic growth and change. 0172-01

Please accept this letter in support of:

- Central Section Alternative Routes C2B, C4A and C4B; 0172-02
- Selection of Waco for a station location; and 0172-03
- Further study in a Tier 2 Design and Environmental Review. 0172-04

Waco is the economic hub and equidistant location between Dallas/Fort Worth and Austin. With a population of 235,000 and the diverse industry available in the Waco MSA, we have the resources and manpower to support the demand and opportunity provided by this new transportation infrastructure.

Thank you for your time and consideration. I look forward to the Tier 2 design and review process, and thank TxDOT for your vision in exploring this mode of transportation for our state.

Sincerely,

Mike Anderson
President

Submittal 0173 (Stewart Kelly, August 26, 2016)

KELLY, REALTORS®

August 26, 2016

Mr. Mark Werner
Project Manager, Rail Division
Texas Department of Transportation
125 E. 11th Street
Austin, TX 78701-2483

Dear Mr. Werner,

I am writing to show my support of the high speed rail line along the I-35 corridor and to request that Waco be a designated stop and passenger station. **0173-01**

For more than 25 years, I have worked closely with the Greater Waco Chamber of Commerce and the Waco Business League, along with numerous other organizations striving to promote and develop Waco and the surrounding area. Through my involvement with these organizations it has been made abundantly clear that Waco serves as a central point of distribution for Texas. Connecting Dallas, Waco, and Austin with a high-speed rail line will help provide a stronger transportation infrastructure and serve as a viable alternative to the congestion on I-35. **0173-02**

As the heart of Texas, Waco is the economic hub and equidistant location between Dallas/Fort Worth and Austin. With a population of 235,000 and diverse industrial base in the Waco MSA, we have the resources and manpower to support the demand and opportunity of this new transportation infrastructure. **0173-03**

With that being said, please accept this letter in support of the following:

- Central Section Alternative Routes C2B, C4A and C4B; **0173-04**
- Selection of Waco for a station location; and **0173-05**
- Further study in a Tier 2 Design and Environmental Review. **0173-06**

Thank you for your time and consideration. I look forward to the Tier 2 design and review process, and thank TxDOT for your vision in exploring this mode of transportation for our state.

Sincerely,

Stewart R. Kelly

Stewart R. Kelly
Owner/Broker

(254) 741-1500 (o)
(254) 741-1506(f)
1229 N Valley Mills Drive
Waco, Texas 76710
[redacted]
www.kellyrealtors.com

Submittal 174 (Robert Houston, August 25, 2016)

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 6
1445 Ross Avenue, Suite 1200
Dallas, TX 75202-2733

August 25, 2016

Ms. Melissa Hatcher
US Department of Transportation
Federal Railroad Administration
1200 New Jersey Ave SE, RPD-13, MS-20
Washington, DC 20590

Dear Ms. Hatcher:

In accordance with our responsibilities under Section 309 of the Clean Air Act (CAA), the National Environmental Policy Act (NEPA), and the Council on Environmental Quality (CEQ) regulations for implementing NEPA, the U.S. Environmental Protection Agency (EPA) Region 6 office in Dallas, Texas has completed its review of the above Draft Environmental Impact Statement (DEIS) prepared by Federal Railroad Administration (FRA). The Federal Railroad Administration (FRA), in cooperation with Texas Department of Transportation (TXDOT) released the level (Tier 1) DEIS for the Texas-Oklahoma Passenger Rail study, encompassing route and service alternatives for passenger rail between Oklahoma City to Fort Worth and Dallas (northern section), and south to San Antonio via Austin (central section), and south to Laredo, Corpus Christi and Brownsville (southern section).

EPA rates the DEIS as "**EC-2",** i.e., EPA has "environmental concerns and requests additional information" in the Final Environmental Impact Statement (FEIS). EPA's Rating System Criteria can be found here: http://www.epa.gov/oecaerth/nepa/comments/ratings.html. Detailed comments are enclosed with this letter which clearly identifies our concerns and the informational needs requested for incorporation in to the FEIS. Responses to comments should be placed in a dedicated section of the FEIS and should include the specific location where the revision, if any, was made. If no revision was made, a clear explanation should be included.

EPA appreciates the opportunity to review the DEIS. Please send our office two copies of the FEIS, and an internet link, when it is sent to the Office of Federal Activities, EPA (Mail Code 22252A), William Jefferson Clinton Federal Building, 1200 Pennsylvania Ave., N.W., Washington, D.C. 20004. Our classification will be published on the EPA website, www.epa.gov, according to our responsibility under Section 309 of the CAA to inform the public of our views on the proposed Federal action. If you have any questions or concerns, please contact me at (214) 665-8565 or via email at houston.robert@epa.gov or Michael Jansky of my staff at (214) 665-7451 or via email at jansky.michael@epa.gov for assistance.

Sincerely,

Robert Houston, Chief
Special Projects Section (6EN-WS)
Compliance Assurance and
Enforcement Division

Enclosure

DETAILED COMMENTS
ON THE
FEDERAL RAILROAD ADMINISTRATION
SERVICE LEVEL TIER ONE
DRAFT ENVIRONMENTAL IMPACT STATEMENT
FOR THE
TEXAS-OKLAHOMA PASSENGER RAIL STUDY CORRIDOR
SOUTH TEXAS TO OKLAHOMA CITY

BACKGROUND

The Federal Railroad Administration (FRA), in cooperation with Texas Department of Transportation (TXDOT) released a service level (Tier 1) Draft Environmental Impact Statement (DEIS) for the Texas-Oklahoma Passenger Rail study, encompassing route and service alternatives for passenger rail between Oklahoma City to Fort Worth and Dallas (northern section), and south to San Antonio via Austin (central section), and south to Laredo, Corpus Christi and Brownsville (southern section). The Tier 1 DEIS addresses the first tier of broad corridor issues and alternatives. Subsequent project level second tier (Tier 2) NEPA evaluations will analyze site-specific projects based on the decision made at the service level.

COMMENTS

The following comments are offered for FRA's consideration in preparation of the Tier 1 FEIS:

Dredge and Fill Impacts to Waters of the United States

The Clean Water Act (CWA) Section 404 regulates the discharge of dredged or fill material into waters of the United States (WOUS), including wetlands and other special aquatic sites. Due to the nature of the proposed Passenger Rail Program project, which will require dredging and placement of fill required for construction of aboveground facilities, including potential placement in WOUS, it will require a Section 404 permit under the CWA. As such, the applicant should coordinate with the U. S. Army Corps of Engineers (Corps). 0174-01

EPA recommends that the Federal Railroad Administration (FRA) include a wetland delineation for the project area in accordance with the 1987 Corps of Engineers Wetlands Delineation Manual and the December 2006 Atlantic and Gulf Coast Region Interim Regional Supplement to the Corps of Engineers Wetland Delineation Manual. A Corps approved jurisdictional determination (JD) will also be required to confirm the extent of the jurisdictional WOUS in the project area that may be directly or indirectly impacted by the project.

When the Corps issues a public notice for the CWA Section 404 permit application, the EPA will review the project for compliance with Federal Guidelines for Specification of Disposal Sites for Dredged or Fill Materials (40 CFR 230), promulgated pursuant to Section 404(b)(1) of the CWA. Pursuant to 40 CFR 230, any permitted discharge into WOUS must be the least environmentally damaging practicable alternative available to achieve the project 0174-02

purpose. We recommend the FEIS include an evaluation of the project alternatives in this context in order to demonstrate the project's compliance with the 404 (b) (1) Guidelines. If, under the proposed project, dredged or fill material would be discharged into WOUS, we recommend that the FEIS discuss alternatives to avoid and minimize those discharges.

If the project proposed in the Service Level DEIS would require dredging or disposal of fill material in WOUS, the applicant should be aware that, depending on the method of disposal proposed, it may be necessary to test the dredged material for contaminants prior to placement. If the material would be placed in an upland confined disposal facility, but would result in a discharge of effluent to WOUS, this discharge would require water quality certification under CWA Section 401. Section 230.10(b) (1) prohibits the disposal of dredged material that might violate applicable water quality standards, after consideration of disposal site dilution and dispersion. Therefore, sediment contaminant testing should be performed using the Corps Upland Testing Manual in cases where potentially contaminated dredged material is proposed for disposal in a Confined Disposal Facility, and there is the potential for release of contamination into WOUS through effluent. If the material would be placed into WOUS for beneficial use, such as creation of wetlands, then sediments should be tested for contamination according to the Corps/EPA Inland Testing Manual to determine their suitability for open water disposal. **0174-03**

In addition, EPA recommends that FRA prepare a draft wetland mitigation plan for review and comment by EPA, the Corps, and other interested stakeholders. The mitigation plan should compensate for unavoidable impacts to aquatic resources, and be included in the DEIS along with the applicant's analysis and any additional information relevant to potential impacts to wetlands and other aquatic resources. **0174-04**

Storm Water Considerations

EPA recommends the FEIS describe the original (natural) drainage patterns in the project locale, as well as the drainage patterns of the area during project operations. Also, we recommend the EIS identify whether any components of the proposed project are within a 50 or 100-year floodplain. **0174-05** We also recommend noting that, under the Federal Clean Water Act, any construction project disturbing a land area of one or more acres requires a construction storm water discharge permit. **0174-06**

Recommendations:

EPA recommends the FEIS document the project's consistency with applicable storm water permitting requirements. Requirements of a storm water pollution prevention plan would be reflected as appropriate in the FEIS. **0174-07**

We also recommend the FEIS discuss specific mitigation measures that may be necessary or beneficial in reducing adverse impacts to water quality and aquatic resources. **0174-08**

Air Quality: PM_{10} Emissions and Fugitive Dust Control

The DEIS states that this service-level DEIS analyzes the environmental effects of route and service type options at the conceptual planning stage only. However, potentially unavoidable adverse effects are identified, as described in Section 5.0 Unavoidable Adverse Effects. The DEIS also states that potential adverse effects can only be generalized at this service level of review, because field studies were not conducted. However, the responsible parties should develop a detailed Construction Emissions Mitigation Plan (Plan) to further enhance the proposed mitigation measures, even at the conceptual stage. 0174-09

EPA recommends that, in addition to all applicable local, state, or federal requirements, the following mitigation measures be considered (**as applicable and practicable**) in the development of the plan order to reduce air quality impacts associated with emissions of NOx, CO, CO_2, PM, SO_2, and other pollutants from construction-related activities, any planned structural and non-structural activities, and any possible future modifications to the railway/roadway system in the specific project areas:

Recommendations:

- *Construction Emissions Mitigation Plan* – we recommend the following control measures be considered (**as applicable and practicable**) in the Construction Emissions Mitigation Plan in order to reduce impacts associated with emissions of particulate matter and other pollutants from construction-related activities:
    - Fugitive Dust Source Controls: We recommend that the plan include these general commitments:
        - Stabilize heavily used unpaved construction roads with a non-toxic soil stabilizer or soil weighting agent that will not result in loss of vegetation, or increase other environmental impacts.
        - During grading, use water, as necessary, on disturbed areas in construction sites to control visible plumes.
        - Vehicle Speed
            - Limit speeds to 25 miles per hour on stabilized unpaved roads as long as such speeds do not create visible dust emissions.
            - Limit speeds to 10 miles per hour or less on unpaved areas within construction sites on un-stabilized (and unpaved) roads.
            - Post visible speed limit signs at construction site entrances.
        - Inspect and wash construction equipment vehicle tires, as necessary, so they are free of dirt before entering paved roadways, if applicable.
        - Provide gravel ramps of at least 20 feet in length at tire washing/cleaning stations, and ensure construction vehicles exit construction sites through treated entrance roadways, unless an

alternative route has been approved by appropriate lead agencies, if applicable.

- Use sandbags or equivalent effective measures to prevent run-off to roadways in construction areas adjacent to paved roadways. Ensure consistency with the project's Storm Water Pollution Prevention Plan, if such a plan is required for the project.
- Sweep the first 500 feet of paved roads exiting construction sites, other unpaved roads en route from the construction site, or construction staging areas whenever dirt or runoff from construction activity is visible on paved roads, or at least twice daily (less during periods of precipitation).
- Stabilize disturbed soils (after active construction activities are completed) with a non-toxic soil stabilizer, soil weighting agent, or other approved soil stabilizing method.
- Cover or treat soil storage piles with appropriate dust suppressant compounds and disturbed areas that remain inactive for longer than 10 days. Provide vehicles (used to transport solid bulk material on public roadways and that have potential to cause visible emissions) with covers. Alternatively, sufficiently wet and load materials onto the trucks in a manner to provide at least one foot of freeboard.
- Use wind erosion control techniques (such as windbreaks, water, chemical dust suppressants, and/or vegetation) where soils are disturbed in construction, access and maintenance routes, and materials stock pile areas. Keep related windbreaks in place until the soil is stabilized or permanently covered with vegetation.

- Mobile and Stationary Source Controls:
  - Plan construction scheduling to minimize vehicle trips.
  - Limit idling of heavy equipment to less than 5 minutes and verify through unscheduled inspections.

- Administrative controls:
  - Develop a construction traffic and parking management plan that maintains traffic flow and plan construction to minimize vehicle trips.
  - Identify any sensitive receptors in the project area, such as children, elderly, and the infirm, and specify the means by which impacts to these populations will be minimized (e.g. locate construction equipment and staging zones away from sensitive receptors and building air intakes).

- Include provisions for monitoring fugitive dust in the fugitive dust control plan and initiate increased mitigation measures to abate any visible dust plumes.

Permits and General Planning

Section 7.0 - Permits of the DEIS identifies the permits potentially required for the construction of the Passenger Rail System (Table 7-1 on page 7-1). Please identify whether or not there are any other anticipated permits for smaller scale stationary sources, such as compressors, portable and/or auxiliary units, that may be needed during the construction and operation of the rail system. 0174-10

Also, even though the DEIS discusses the cities with potential rail stations (in both Oklahoma and Texas), nonattainment and ozone advance areas, and transportation conformity in several sections, it does not appear that the DEIS fully discusses transportation planning issues. For example, the DEIS does not discuss how the Passenger Rail System would be integrated into the Transportation Plan for the DFW area and other applicable areas (e.g., Austin-Round-Rock San Marcos Ozone Advance Area). Given the importance and scale of this proposed 850 mile railway system, we recommend that future environmental documentation more fully discuss and clarify the planning aspects of the project for each section of railway (i.e., Northern Section, Central Section and Southern Section). 0174-11

Climate Change

The Tier 1 DEIS does not include a reasonable consideration of greenhouse gas (GHG) emissions and climate change impacts. EPA recommends that NEPA analyses include an estimate of the direct and indirect GHG emissions caused by the proposal, a discussion of the incremental impacts of the estimated GHGs, and an analysis of reasonable alternatives and/or practicable mitigation measures to avoid, reduce, or compensate for GHG emissions caused by the proposal. In addition, CO_2 emissions have centuries-long impacts, including global scale changes in ocean acidity, sea level, and mean temperature, as well as changes to local drought and precipitation levels. For purposes of informing decision-makers and the public, EPA recommends this context be provided, and that estimated GHG emissions levels should be used as a general proxy to compare emissions levels from the proposal, alternatives, and potential mitigation. In other words, higher levels of incremental emissions cause higher levels of incremental impacts and risks. 0174-12

EPA recommends that FRA provide a similar analysis for the Texas-Oklahoma Passenger Rail Study that was afforded to the FRA North East Corridor (NEC) Rail Study EIS. This approach would afford consistency among FRA projects. EPA offers for your consideration the following excerpts from the NEC DEIS that discuss GHG and Climate Change. This is an example of the level of analysis we believe should be provided in the Texas-Oklahoma Tier 1 EIS and should be considered to guide you in the analysis process.

The following is offer for consideration:

GHG

On page 7.13-17 of the Tier Draft EIS for the NEC Future the following charts provide the type of information on GHG emissions that seem to be achievable and should have been included in the DEIS. The GHG section is 7.13.5 and goes from 7.13.5.1 through 7.13.21 http://www.necfuture.com/pdfs/tier1_deis/c07_13.pdf

Table 7.13-8: Greenhouse Gas Emissions by Geography (2012)

Geography	Greenhouse Gas Emissions (million
D.C.	3
MD	59
DE	13
PA	233
NJ	99
NY	154
CT	32
RI	10
MA	59

Source: U.S. Energy Information Administration, August 2015.

7.13.5.2 Environmental Consequences

Table 7.13-9 presents the changes in GHGs in the Study Area, in terms of CO_2e, in the year 2040. The changes in CO_2e are presented for roadways, diesel trains, and electric trains.

Table 7.13-9: 2040 Changes in CO_2e (tons/year) – Existing Energy Profile

Project Element	Alt. 1	Alt. 2	Alternative 3			
			via Central CT/Providence	via Long Island/	via Long Island/	via Central CT/Worcester
Roadways	-403,330	-545,875	-602,530	-568,705	-622,645	-587,905
Diesel Trains	0	-10,540	0	1	1	1
Electric Trains	128,685	229,235	367,365	378,115	384,920	241,545
TOTAL	**-274,650**	**-327,180**	**-235,165**	**-190,590**	**-237,730**	**-346,360**

Source: NEC FUTURE team, 2015

As shown in Table 7.13-9, CO_2e from roadways would decrease with all Action Alternatives, whereas the CO_2e from electric trains would increase with all Action Alternatives. Overall, the net total GHGs

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Climate Change

There is also a discussion of Climate Change and Adaptation, more focused on coastal concerns of inundation. I don't believe that needs to be discussed. But, the language on extreme heat and cold on pages 7.15-34 through 7.15-40 contain pretty good language that FRA should read and consider for inclusion. http://www.necfuture.com/pdfs/tier1_deis/c07_15.pdf. The website for the whole DEIS is: http://www.necfuture.com/tier1_eis/deis/

Emissions

EPA recommends that the FEIS estimate the direct and indirect GHG emissions caused by a proposal and its alternatives. Examples of tools for estimating and quantifying GHG emissions can be found on CEQ's website. These emissions levels can serve as a reasonable proxy for climate change impacts when comparing the alternatives and considering appropriate mitigation measures. 0174-13

EPA recommends that EISs describe measures to reduce GHG emissions associated with the project, including reasonable alternatives and appropriate mitigation, and disclose the estimated GHG reductions. The EPA further recommends that the Record of Decision commit to implementation of reasonable mitigation measures that would reduce project-related GHG emissions. 0174-14

Climate Change Adaptation

We recommend including a summary discussion of climate change and ongoing and reasonably foreseeable effects of climate change relevant to the project and the project study area relevant to the proposal, based on U.S. Global Change Research Program assessments in the EIS's "Affected Environment" section. Future climate scenarios included in the assessments can be useful when considering measures to improve the resiliency of the proposal to the impacts of climate change as well as mitigation for potential impacts of the proposal that will be exacerbated by climate change. 0174-15

EPA recommends that consistent with federal policy, the proposal's design incorporate measures to improve resiliency to climate change where appropriate. These changes could be informed by the future climate scenarios addressed in the "Affected Environment" section. The EIS's alternatives analysis should, as appropriate, consider practicable changes to the proposal to make it more resilient to anticipated climate change. Changing climate conditions can affect a proposed project, as well as the project's ability to meet the purpose and need presented in the EIS. One such example would be infrastructure located in coastal regions that may be affected by sea level rise.

Effects of Climate Change on Project Impacts

When considering the potential impacts of the proposal, we recommend Federal agencies consider the future climate scenarios in the "Affected Environment" section to determine whether the environmental impacts of the alternatives would be exacerbated by climate change. If impacts may be exacerbated by climate change, additional mitigation measures may be warranted. EPA recommends FRA refer to the August 1, 2016, CEQ Final Guidance For Federal Departments and Agencies on Consideration of Greenhouse Gas Emissions and the Effects of Climate Change in the NEPA Reviews for evaluating these effects on the environment. 0174-16

Tribal Analysis:

FRA is in the process of conducting studies and evaluating the total and actual impacts of the project on Tribal. It appears that FRA is implementing its Tribal Analysis in accordance with Executive Order 13175. 0174-17

Three recognized Tribe expressed interest in government-to-government consultation. These Tribes are Delaware Nation, Chickasaw Nation and Chickasaw Nation. The Choctaw Nation of Oklahoma requested additional information to thoroughly evaluate their interest per NHPA Section 106 review.

Environmental Justice Analysis:

It appears that FRA is attempting to implement its Environmental Justice Analysis in accordance with Executive Order (EO) 12898. Since this is a service-level analysis, FRA did not present specific analysis on the potential for adverse effects and/or determine whether the Program would result in disproportionately high and adverse effects on minority and/or low-income populations.

The FRA 's service level analysis reveals that there is potential for adverse effects on environmental justice populations. The potential adverse effects on environmental justice populations ranged from moderate to significant, based on the Alternative rail route.

The Office of Environmental Justice and Tribal International Activities (OEJTIA):

In the essence of EJ2020, on August 05, 2016, the ●EJTIA EJ Liaison was notified and encouraged to notify it stakeholders of the Public Hearings and the comment period for the DEIS for T●PRP, which ends August 29, 2016. EPA Region 6 has the following recommendations:

Recommendations:

OEJTIA recommends that FRA utilized the Promising Practice Report (16-2016.pdf) to supplement the applicable requirements for considering and analyzing Environmental Justice population for each tier of the project. 0174-18

OEJITIA recommends that DEIS for appropriate phase/tier of the project incorporates any information and/or comments received from the tribal government-to-government consultations. 0174-19

OEJTIA recommends that discussions be provided on Tribal (Executive Order 13175) impacts and an in-depth explanation for a no impact determination be included in the DEIS.

In this DEIS FRA has not identified the Environmental Populations and the actual impacts have not adequately been assessed and OEJTA recommends it be adequately defined and discussed in accordance with Executive Order 12898 and EPA guidance. 0174-20

OEJTIA recommends that all the necessary tools and methods (i.e. EJ Screen, U.S. Census Bureau and area knowledge) be used in identifying the low income and minority population within or near the parameter of the project. 0174-20

OEJTA recommends the actual direct, indirect and cumulative impact in its totality to the minority or low-income population be identified and explain concise, but briefly.

OEJTA recommends that FRA takes into consideration all the public's comments and selects the alternative that has minimum disproportionately high, adverse human health or environmental effects on minority and low-income populations or individuals and implements adequate mitigation measures.

OEJTIA recommends that in the appropriate phase/tier of the project that an in-depth, but brief explanation for a no impact determination be included for the identified Environmental communities along the parameter of the project.

Coordination with Land Use Planning Activities

We recommend the FEIS discuss how the proposed action would support or conflict with the objectives of federal, state, tribal or local land use plans, policies and controls in the project areas. The term "land use plans" includes all types of formally adopted documents for land use planning, conservation, zoning and related regulatory requirements. Proposed plans not yet developed should also be addressed if they have been formally proposed by the appropriate government body in a written form (CEQ's Forty Questions, #23b). 0174-21

Submittal 0175 (Seth Morris, August 29, 2016)

29 August 2016

Mr. Mark Werner
Project Manager, Rail Division
Texas Department of Transportation
125 E. 11th Street
Austin, TX 78701

Dear Mr. Werner,

I am contacting you today to voice my support, and that of my peers, for three (3) of the alternative High Speed rail routes proposed in the Draft Environmental Impact Statement. As a Waco resident, particularly as an individual with experience in planning and logistics, the C4A, C4B and C4C High Speed Rail options appear to be ideal for the Central Section as described in the TOPRS. **0175-01**

I specifically mention the value of a Waco station for several reasons. Firstly, Waco is precisely equidistant between the massive Dallas and burgeoning Austin population centers. Given the speed at which this rail line would operate, coupled with energy and time necessary for acceleration and deceleration, a linearly ideal option, which is Waco, would maximize the benefits of a high speed rail option. **0175-02**

Additionally, the three preferred routes provide the most expedient route between the North and South Sections, making overall average trip speed faster than it would have been otherwise. This is accomplished by reducing the number of instances where deceleration is required to accommodate subtle changes in direction.

As you can imagine, a Waco stop would serve the rural surrounding counties while still providing an, on average, 45 minute or less commute for Bell County residents and/or Hillsboro residents. Given the density of Economic Development along the Interstate 35 corridor, with the strongest rates of growth concentrated between Dallas and San Antonio, I personally thank the Texas Department of Transportation for taking the initiative to explore a multi-modal transportation system to meet our state's ever-changing needs. **0175-03**

I would like to add, briefly, that I acknowledge that there are many benefits to our State beyond the obvious points described above. In an era of social media, online education, near-instantaneous answers to virtually any question that can be asked, there is no doubt that the *expectations* of transportation are changing. Speed in the physical realm (rather than digitial) is becoming increasingly important for those accustomed to not needing to wait for a hand written letter or a phone call. This is particularly true in the case of education and young college students. Waco alone is home to almost 30,000 such students, and although harder to define, the value of expedient and convenient travel for this audience cannot be overstated.

Thank you again for your time and efforts to explore and define a high speed rail option spanning Texas. As an individual with some knowledge in this area, I firmly believe that a stop in Waco, Texas has numerous strategically valid merits in its own right. At the least, it is my hope that someday my children and grandchildren will benefit from the foresight of individuals such as you.

Sincerely,

Seth A. Morris

Vice President, Economic Development

Greater Waco Chamber of Commerce

Submittal 0176 (Brian Schehrer, August 30, 3016)

Fold

Schehrer
2307 Denham Drive
Arlington, Texas 76001

NORTH TEXAS TX PROC
DALLAS TX 750
30 AUG 2016 PM 6 L

Fold

Tape

Mark Werner, Rail Division
Texas Department of Transportation
125 E. 11th Street
Austin, TX 78701-2483

Tape

78701-2483

Tape

Texas-Oklahoma Passenger Rail Study

Rec'd 9/1/2016

Comment Form

We want to hear what people living and working in the IH-35 corridor think about the route and service alternatives that we plan to advance for additional study. Submit your comments by **August 29, 2016** by **mail**, **online** (http://www.txdot.gov/inside-txdot/projects/studies/statewide/texas-oklahoma-rail.html), or at a **public hearing.**

Do you agree with the recommendations?

Northern section

☐ Yes ☒ No (what would you change and why?) ☐No opinion

I agree with the proposed 4 trains daily in each direction. An alternate route should be planned that connects Oklahoma first with DFW airport and then with Ft Worth and Dallas. 0176-01 0176-02

Central section

☒ Yes ☐ No (what would you change and why?) ☐No opinion

The C4C route offers the greatest service to the public and long-term opportunity for fiscal success. The Dallas connection must maintain interoperability of trainsets and interchange with DAL-HOUSTAN high speed passengers 0176-03 0176-04

Southern section

☒ Yes ☐ No (what would you change and why?) ☐No opinion

What can TxDOT look at as a part of the study in the future?

Exploring cooperation with city governments to insure public transportation will feed passengers to the planned stops on all of the routes. Sufficient car rental and parking facilities are essential to augment public transportation (ie bus and Light Rail lines) 0176-05 0176-06

Name: Brian Schehrer

Address (optional): **ZIP code:**

Email (optional): [redacted] Phone (optional): 214-425-5001

(Texas Transportation Code, §201.811(a)(5)): check each of the following boxes that apply to you:
☐ I am employed by TxDOT ☐ I do business with TxDOT ☐ I could benefit monetarily from the project/item I'm commenting on

Submittal 0177 (George Doyle, August 29, 2016)

McVay, Billie/DFW

From: George Doyle [redacted]
Sent: Monday, August 29, 2016 10:09 AM
To: Mark Werner
Subject: Rail

0177-01

Just a quick comment about passenger rail. Why not fly? Build an alternative, geared towards all passengers including vacationers. Stop in the small towns and people will get on/off.
Thanks for your time and have a great day.

Sent from Mail for Windows 10

Submittal 0178 (Tom Salome, August 31, 2016) Rec'd 8/31/2016

TOM SALOME INVESTMENTS

PO BOX 509
WACO, TX 76703
254-756-4114 254-756-4119 FAX

MEMORANDUM

September 29, 2016

Mr. Mark Werner
Project Manager, Rail Division
Texas Department of Transportation
125 E. 11th Street
Austin, TX 78701-2483

Dear Mr. Werner,

Thank you for the opportunity to comment on the Draft Environmental Impact Statement (Draft EIS) for the Texas-Oklahoma Passenger Rail Study (TOPRS).

The Program's Draft EIS identified three preferred alternatives for the Central Section: C4A High-Speed Rail, C4B High-Speed Rail, and C4C High-Speed Rail. The Draft EIS also identifies Waco as a potential station location.

I am writing to you today to convey my support for any of the three alternatives for a high-speed rail line along the I-35 corridor, and for designation of Waco as a station location. 0178-01 0178-02 As a businessperson and resident, I recognize how vital a strong transportation infrastructure system is for both commerce and quality of life. 0178-03 I would like to thank the Texas Department of Transportation for taking the opportunity for this Tier 1 study to explore a multi-modal transportation system to meet our state's changing needs.

As the heart of Texas, Waco is the economic hub and equidistant location between Dallas/Fort Worth and Austin. With a population of 235,000 and diverse industrial base in the Waco MSA, we have the resources and manpower to support the demand and opportunity of this new transportation infrastructure. Further, such service will provide a viable alternative to commuting on I-35, and help to alleviate congestion on that nationally significant corridor. 0178-04

Passenger rail accessibility in Waco will benefit economically from the many assets of our community. Waco is home to over 25,000 students at Baylor University, Texas State Technical College, McLennan Community College and the University Center at MCC; further, Waco is home to the operations of Fortune 500 companies such as L-3 Communications Platform Integration, Mars, Inc., Coca-Cola, and Allergan.

Thank you for your time and consideration of my perspective on the future of high-speed passenger rail, and my support of Waco's connectivity to the line. I look forward to the Tier 2 design and review process, and thank TxDOT for your vision in exploring this mode of transportation for our state. 0178-05

Sincerely,

Tom G. Salome

Tom G. Salome

TSI
Tom Salome *Investments*
P.O. Box 509 • Waco, Texas 76703

NORTH TEXAS TX PSDC
DALLAS TX 750
29 AUG 2016 PM 7 L

Mr. Mark Werner
Project Manager, Rail Division
Texas Department of Transportation
125 E. 11th Street
Austin, TX 78701-2483

78701-248399

Date:

August 09, 2016

Case:

TxDoT OPEN HOUSE PUBLIC HEARING

KIM TINDALL & ASSOCIATES, LLC

ORIGINAL

Kim Tindall and Associates, LLC.
Phone: (210) 697-3400
Fax: (210) 697-3408
Email: [redacted]
Internet: www.KimTindallandAssociates.com

TEXAS DEPARTMENT OF TRANSPORTATION

OPEN HOUSE/PUBLIC HEARING

TEXAS-OKLAHOMA PASSENGER RAIL STUDY (TOPRS)

OKLAHOMA CITY, OK TO SOUTH TEXAS

TEXAS DEPARTMENT OF TRANSPORTATION

1817 BOB BULLOCK LOOP

LAREDO, TEXAS 78043

AUGUST 9, 2016

5:30 P.M. - 8:00 P.M.

MR. M. WERNER: Okay. Good evening. I'd like to thank everyone for coming, taking their time out of their evening to come for a public hearing. My name is Mark Werner. I'm the rail planning section director with TxDOT and I'm the public hearing official for tonight's meeting.

The purpose of tonight's meeting is to get public comments on the Texas/Oklahoma passenger rail study or, as we refer to it, the TOPRS. So we'll go through -- through a little short presentation here, and then we'll start the -- the public comment portion of our -- of our study. This is our agenda. I'll just kind of go over the overview, the environmental overview schedule and public comments.

Now, this is -- this is a formal hearing as opposed to the -- the public scoping meetings that we had in the past. At this meeting we won't be responding to any -- any comments or questions. We'll be -- we'll be just taking your comments. Those will be recorded down by the court reporter and those will be incorporated into the final EIS document that will be submitted to the FRA for approval.

As I said, this is the Texas/Oklahoma passenger rail study and the purpose of this study was to determine the feasibility of passenger rail service

in the -- in the corridor 850-mile corridor from Oklahoma City to South Texas.

Okay. I am here because I am the official and I'm giving the presentation. You're here, hopefully, to learn more and give comments on -- on the study. Tonight's -- It's an open -- like I said, it's an open house. There -- It's a hearing. We'll be taking comments. After the public comment period, staff will be around to answer any questions that you might have at -- at the end of the presentation. But this is the -- the purpose here is to get -- is for you guys to ask questions, review the study, as you need, and then provide your comments on -- on the study.

Now, there's several ways that you can submit comments. We'll be taking verbal comments at tonight's meeting. There is also comment cards back at the -- at the back desk that you can fill out tonight and put into your -- into the box. You can also mail them in to us or you can fax them or e-mail them to me or you can mail them in. All of the comments have to be in by 5:00 p.m. August 29th. That's the end of the comment period for this study. Okay. Let's go on to a little project overview here.

Like I said, this is -- the purpose of this study was to determine the feasibility of this new

passenger rail service in the 850-mile corridor from Oklahoma City down to South Texas. The study began in October of 2012. And then in the fall of 2013 we held a series of scoping -- public scoping meetings throughout the corridor to get input from the public on where they felt the service should go -- should operate, and it -- and during that time we got a lot of comments from the -- the -- the border region that there should be a connection down into Mexico.

In the winter of 2014 we refined the alternatives that were suggested and came down to the ones that we took further into the environmental process for evaluation. We looked at a range of service types: Everything from conventional Amtrak service to higher speed service, which is train trips up to 125 miles an hour, and then true high-speed rail service, which is speeds up to 220 miles an hour.

All of the alternatives that we -- that we're showing tonight were evaluated through a set of -- of environmental criteria and the -- and the purpose of tonight's meetings, of course, is to get your comments on the project.

Every environmental study needs to have a purpose and need. The purpose of this study is to enhance intercity mobility by providing enhanced

passenger rail service as a transportation alternative that is competitive with automobile, bus and air travel.

Now, the need for that as we're -- is -- is to address the existing passenger rail service or lack of in -- in the corridor and to meet future mobility needs. One of the reasons for that is with increased population and economic growth you're going to increase congestion and demand on our transportation network. There's limited intercity passenger rail service right now, as -- as everybody in the area is aware of, so we're looking to approve that. Also as you increase, you know, vehicular traffic your air quality climbs. This will be another way to address air quality issues. And then there's also -- with the increase in -- in truck traffic, we've got more trucks on the road, it's unsafe, and now you have -- we'd have another alternative to -- to travel back and forth and not be on the highways.

Okay. This is a planning level study, which is different from a project level, so this is a high-level study where you don't determine actual alignments. We just do general alignments to represent what -- what the service could look like and to come up with some estimated costs of the service. It's the first step in -- in evaluating the corridor to determine

projects that will come out of it that can be evaluated in -- in as a project level study. And because of the size of this corridor -- we went this way because it's such a complex and large corridor, we need to determine what is feasible in the different segments of -- of the corridor. And at the completion of this study, after we've received comments -- and those will be included in the EIS -- there will be issued a Record of Decision by the Federal Railroad Administration, which is the -- the federal lead agency for this project.

Okay. This is -- Again, this is the study area of -- of -- we started with. We broke it up in -- in to three sections. Because of the -- the -- the size of the corridor we felt that there would probably be different needs, service needs for the different segments. So we have the northern section which is from Oklahoma City down to Dallas/Ft. Worth; central from Dallas/Ft. Worth to San Antonio; and then southern section down from San Antonio to the -- to the Rio Grande Valley and -- and Laredo.

Again, this is kind of about the type of services that we're looking at. Conventional Amtrak service, which is typically at speeds of 70 -- up to 70-90 miles an hour. Usually on the freight rails that's what they're allowed to run; your stations are

closer together and your frequencies aren't -- aren't as high. And then you have the higher speeds, which is speeds up to 125 miles an hour. Anything above 125 has to be a fully grade separated contained system, and that type of service your trains are -- your stations are farther apart, a few more trains are per -- per -- per day. And then you have your true high speed, which is speeds up to 220 miles an hour. You're at increased frequency, your stations a hundred or more miles apart, and it's more kind of like a reserved seating, kind of like the -- like air service.

Environmental Overview: All of the alternatives were evaluated -- and there's boards back there that kind of show you what the impacts were -- against these environmental criteria. We looked at air quality, endangered species. We looked at farm use, impacts to agriculture. There's public safety. We also looked at the travel demand and the construction impacts. But all of these criteria were evaluated, each of these alternatives were evaluated using that -- using those criteria.

Okay. This is the -- the northern section that we're recommending for approval. This is the -- at -- there wasn't sufficient ridership in the northern section to support higher speed or high-speed passenger

rail service, but there was enough to improve an Am- -- improve the Amtrak service. This route follows the existing Heartland Flyer route from Oklahoma City down to Ft. Worth and then makes a connection across the TRE line to Dallas, and there would be four to six train -- four to six round trips a day for this service.

Now, the central section, this had the -- the highest demand. There's sufficient ridership in this section to support true high-speed rail service in the corridor, and we came up with three different alternatives. Each one is -- is -- is on -- follows the same alignment from Hillsboro down to San Antonio, the difference being as you get into the Metroplex how we serve the Metroplex area. C4C is -- makes kind of a loop where one train would run up through like Dallas/Ft. Worth, and the next trains would run through Ft. Worth, so you'd serve both -- both cities in -- in the Metroplex evenly, which is -- I don't know if you're -- there's a lot of competition between Dallas and Ft. Worth, so... and this -- that -- that one would also make the connection to DFW airport. C4B would run up into Arlington, then you'd have a split going across to -- to Ft. Worth and to Dallas. And then C4A would -- would run up to Dallas to make a connection across, also with a connection to DFW airport and connect to

Ft. Worth.

Now, the southern section -- I'm sure this is the one everybody is -- is most interested in here -- we came up with two alternatives for this corridor. There is the one which is the -- could be a higher speed or true high-speed service from San Antonio to Monter- -- to Monterrey, Mexico. Now, like I said, in our original public scoping meetings, there was -- you know, we -- we received a lot of comments that there was a lot of interest to connect down -- down into Mexico and to Monterrey, and there's a lot of business connections between Monter- -- Monterrey and -- and again, Dallas/Ft. Worth, so we were able to do some really high-level estimates on ridership. There needs to be more -- more work done to refine those numbers, but it -- it indicates there would be a sufficient ridership to support -- if not higher speed -- the true high-speed rail service down in -- into Monterrey. Another alternative that we developed is -- it would be a higher speed service, and that would connect San Antonio down into the Rio Grande Valley and it would also provide connections across to Corpus Christi and -- and Laredo.

Okay. As mentioned, this is the -- this is the draft Environmental Impact Statement for you to

make comments on. We have a copy of it in -- in the back if anybody has, you know, time to read 860 pages of a document. It's also available on our website. We encourage you to take a look at it, you know, look over it and then provide your comments. Again, you can provide them over through -- you can take a comment card with you or you can e-mail your comments to me and they will be recorded as part of the environmental process. This is the study schedule that we're following.

We started, like I said, in the spring of 2013, we're now in the summer of 2016, with the -- the taking the comment -- the public comment period on the study. After the -- the comment period ends, the staff will -- will review the comments, we'll respond to those comments, and those will be included in the -- in the final EIS, and we hope to have a Record of Decision at the end of this year, the first part of next year. So these are the next steps.

As I kind of mentioned, we're going to compile all of the comments that we receive tonight; and then we also have a public meeting tomorrow night in Austin, and then another one the following night in Arlington. So we'll take all of those public comments, any comments that are submitted by mail or through e-mail, and those will be reviewed and -- and addressed

and -- as part of the -- the final document that will be submitted to the FRA which, I stated earlier, is the lead federal agency on this project.

Okay. That concludes -- concludes the presentation portion of our study. Now, right now, I would like to take time to introduce any public officials.

We have Webb Commissioner John Galo here. I'd like to invite you to make any comments if you would like.

0179-01

COMMISSIONER J. GALO: First of all, David, thank you very much, and, of course, to Pete and Melissa for hosting us here tonight. It's very nice to see so many people turned out for this. I mean, it's a very important issue for Laredo, and, I think, of course, we see all -- a lot of people that have some stroke here: IBC, and Montemayor of the City of Laredo, TAMIU. So I encourage you all, we have a -- a turn-in sheet there where -- with a comment card. Please, I think, it's very important that we support the high-speed rail not the -- the higher speed, the true high-speed rail and the connection going straight to Monterrey.

0179-02

Of course, we need to make sure that they stop in Laredo, the Port of Laredo, because we have the

0179-03

entryway. And again, I just thank I hope you all you.submit all of those. Everybody please pick up pmekof those cards, turn it in, it's very important. Webb County has already been on this for quite some time.

We are a member of the High-Speed Rail Coalition and the TX 212 Infrastructure Coalition. Of course, the high-speed rail is -- is dealing strictly with high-speed rail and we're making sure that Laredo is not going to be bypassed. So the County Judge Tano Tijerina is is on the board there with them on that, and I'm the the second chair, if you say, on that coalition, and we continue to work to make sure that Laredo's not bypassed. Texas 21 is also another infrastructure lobby company that deals with all State of Texas highways, shipping ports, rail, anything to do with transportation in the State of Texas and trying to make sure that, you know, we maintain our thing. We have the Third Coast Initiative, and so I invite you to those.

And actually I'd to like make an announcement here tonight. Texas 21 will be holding their annual -- their -- their quarterly conference in Laredo, Texas, at La Posada Hotel, November the 10th and 11th, so if you have any interest in transportation

issues, we'll be there. And I believe the Secretary of State is already confirmed to come down. We have some TxDOT commissioners, hopefully, coming down. We have quite a few people. The state reps some have confirmed. I believe, Zaffirini will also be there. Hopefully, Henry Cuellar's going to be there. So we -- and it's going to be mainly mayors and county judges from throughout the state attending; those are the people that are members of Texas 21. So I encourage you to go there and join us that -- that day on November 10th and 11th.

And again, please, very important, turn in those -- those comment cards supporting the true high-speed rail and the route that goes to Laredo,Texas, not by way of Alice. Thank you. 0179-04

MR. M. WERNER: Thank you, Commissioner.

We also have the chairman of the Webb County -- with the Webb County City of Laredo RMA, Ruben Soto. Mr. Soto, would you like to make any comments or --

MR. R. SOTO: Well, not really.

MR. M. WERNER: Not to put you on the spot or anything.

MR. R. SOTO: Good afternoon. It's a pleasure being here and joining all of you, you know,

seeing what the future holds for the city and the community and the State of Texas; and we look forward to hearing the presentation. It's -- it's rare that people are fewer -- forward thinking in -- in this community and we -- we really appreciate that coming from Henry Cuellar and company.

MR. M. WERNER: Okay. Thank you.

MR. R. SOTO: Thank you very much.

MR. M. WERNER: And I probably should mention that Congressman Cuellar is -- is on his way and he'll be here in about ten minutes, I've been told.

So we have some representatives from Mexico. I'd like to intro -- introduce them and also give them a chance to make any comments, if you'd like. We have Hugo Gonzalez, Director of Corporate Trade & Economics with Nuevo Leon. Monica Zozaya.

MS. M. ZOZAYA: Zozaya.

MR. M. WERNER: Zozaya. Sorry.

And then we also have Carlos Garza with Camino Colombia and Manuel Salvador Acuna Zepeda. I'd like to offer you the opportunity to make any comments if you'd like to, or --

MR. H. GONZALEZ: Sure. Well, good evening, everybody. My name Hugo Gonzalez. I'm the COO of the Colombia International Bridge and I'm very happy

to be here with all of my -- my team and also my colleagues from the University of the State Nuevo Leon and municipality of Monterrey, and, obviously, all of you. And we are very happy to hear all of this progress that has been moving on about this international rail project, so we will be very attentive to -- to hear all of the comments, and anything that we can do to help we'll be more than glad to do it. Thank you very much.

MR. M. WERNER: Okay. Thank you.

Now, we'll start the public comment period. If anybody would like to speak, please fill out a comment card. And then if you don't want to, please -- please -- please fill out a comment card.

Okay. Now, if -- as I call your name, please come up to the podium, speak into the microphone. Please face the -- the court reporter. All comments are being recorded, so please do that.

Our first person is Reagan --

AUDIENCE MEMBER: He answered my question when I talked to him around the map.

MR. M. WERNER: Okay. So --

AUDIENCE MEMBER: I had a couple of questions and he answered them.

MR. M. WERNER: All right. Okay. Thank you.

And then next we have Jerry Schwebel. Okay. Would you like to make a comment?

MR. G. SCHWEBEL: Sure. I have more questions than I have comments, I guess.

MR. M. WERNER: Okay. Well, this is -- is the -- the forum of this hearing is -- is, we're -- we're just taking comments, and then we -- we'll be happy -- after the comment period, we'll be back at the table and be happy -- happy to talk to you and answer any questions. But right now we're just taking the comments.

MR. G. SCHWEBEL: Well, I guess, my comment would be more along the lines of make sure that whatever planning is being done that we do continue to have these public forums. When it becomes more informative than -- you know, and more -- there may be more questions. 0179-05

So, therefore, I think this is a -- this is a positive thing that we have this great input of participation, but I would -- only would like to see us as -- and encourage everyone who is participating in this process to have more than one venue such as this in order to -- to be as informative to the public. Because there can -- at times can be misconceptions of what's out there and what is happening, and those that are

being for or -- or opposed to it may -- and as a result of perhaps a lack of adequate information that may be out there in the public. So I -- my message is more to encourage as much information out there to the public.

You have a private sector that needs to be, you know, more engaged, I believe. Even though, with all due respect to our public officials, that -- that -- that follow this a lot closely, you know, there's a lot of private sector involvement willing to participate and want to know more about what's going on.

We work very closely with our friends from Mexico. We know the importance of Mexico to us, and, therefore, we need to make sure that -- that any planning that's done that it is a bi-national planning, that we understand clearly what the potential impact would be and that -- in our community and this is where we're looking at. So the more information that's out there, the better. I encourage it to continue, but at the same time I think more than one particular venue is -- is necessary. 0179-06

This is a very, you know, I guess, visionary and a very bold initiative. I think there's a lot of merit conceptually, but at the end of the day, you know, we want to make sure that -- that the proper planning and -- and involvement and knowing what the

stakeholder input will be allowed so in order to make the right recommendations to all parties that be.

So that -- that is my short message. And I -- and I really believe that there's still -- there's so many questions that are still out there that -- that I hope there will be a -- a venue or a forum where people can ask more questions and -- before the final decision. Because it seems to me that, from what I'm hearing just today and what I've read, this is already a moving target, it's already moving forward. And the question is, okay, so what are we going -- how -- what -- how can we become involved in -- in getting more information.

So that's my message today. Please consider the private sector involvement and participate in the forum. And I -- and I -- and I commend the organizers for tonight to make -- to -- that have put this thing together. Thank you.

MR. M. WERNER: Thank you for your comment. John?

COMMISSIONER J. GALO: And I guess, once again, just to -- to add to Gerry's comments, this is something that's moving actually very quickly. We have not been a member of that coalition for very long. It -- it's been around for quite some time, but there

is -- seems to be quite a bit of interest picking up.

In fact, I know the coalition will be meeting with some Chinese investors here in San Antonio, I think, next month or the end of this month. So it -- it is actually -- I believe there's a consortium from Japan, China and Germany actually looking at this project, so it's -- it's not a pie in the sky. It's you know, the numbers have to work for them, obviously, they have to get a return on their investment, but this thing is -- is actually gaining some speed, it's gaining ground, and there's people coming down here with real money and skills to be able to develop this project. Again, so we need to make sure that the numbers work -- or they need to make sure the numbers work and we need to make sure that -- that we're a part of the process.

And so I encourage you, like what Gerry said, the private sector needs to get involved as much as possible, and we invite them and anybody else who would like to join that coalition so they can stay informed as much as possible, and I'll be glad to give as much information as I have, when I get it. So, you know -- and again, if -- if TxDOT would be able to give more forums then that would be great so we can give some updates. But again, we invite you to join that coalition and -- IBC, I'm expecting you. All right.

Thank you very much.

MR. M. WERNER: All right. Thank you.

Is there anyone else who would like to make a public comment?

Okay. Well, that will conclude the -- Okay. We have more? Okay. Good.

Okay. Ruben Soto.

0179-07

MR. R. SOTO: I'm speaking as a citizen of Laredo and Webb County not as my position in the chair. And what I see in the fact sheet is the rail -- there's several options that have been presented, and I've been to a prior meeting with -- with Jeff Gosden (phonetic) and Henry Cuellar and others in San Antonio and they're discussing this project -- and I think it's a great project. But some questions come up as to why the City of Laredo is not included in it as a proposed route.

I know the proposed route that -- one of the proposed route is going through Colombia bridge, and personally I -- I think the city could benefit much more if it went through the city as far as commerce, as far as passengers going through the City of Laredo, dropping off, stopping off, shopping in Laredo, spending money here and the other side of the bridge.

Also, you know, personally, I would like to see the existing rail that goes through downtown and

the City of Laredo, hopefully, that route that -- for transportation of goods could be mount -- moved somewhere in south Laredo and bypass the whole city altogether and, instead, in the future, maybe use that existing route that goes through the City of Laredo, make it above grade and use that as a passenger rail service; and that way you eliminate the problems of all of the traffic being stopped at the rail crossings, and you also have a -- a very beautiful rail passing through the City of Laredo, down in Nuevo Laredo, Monterrey, et cetera, down all the way to wherever it's going to end.

And so that's just my personal comments, you know. I -- I hope they consider that. I don't know how far along you are with this project, but, to me, it would probably make more sense if it goes through the City of Laredo. Thank you.

MR. M. WERNER: Thank you for your comment.

Is there anyone else who would like to make a comment?

Okay. We have Gene Gonzalez.

MR. R. GONZALEZ: Rene.

0179-08

MR. M. WERNER: Rene Gonzalez. I'm sorry.

MR. R. GONZALEZ: Just to follow up on

what Gerry and Commissioner Galo were saying, you have a NEPA resources and to involve the community more in that. The NEPA resource has steps and processes and subject matters that they use. The challenge becomes that that's not communicated individually to the -- as it's going through the process, and that's one of the things you may want to look at when involving the communities is, once you finish a process, report to the community that you've done the environmental that you've done the engineering that you've done as -- as a step-by-step process from a communications standpoint, because this is very important. And one question that may come up is, did you answer these questions, and, yes, you did, but no one knew about them, and then it challenges the next step.

And we've seen that historically as individuals that have been involved in transportation before is, well, you're surprised by something that comes up at a later date, because no one was informed of that process, and you have a lot of information and sometimes it's hard to get all of that information and sink into the individuals involved. And, of course, there are individuals involved and there are coalitions that exist, but the average citizen -- or even if it's just a mail out or a -- or an e-mail or -- saying this

part of the state rail plan has been done.

And here's an example. Like you said, we have the hearings and the applications online, add those on -- add those to the online process and -- and like that is a detailed individual process. And, of course, we all know it's 60 to a thousand pages sometimes, but, at least, you know exactly where -- everyone will know and is on the same page where we are on this process and how to get there.

MR. M. WERNER: All right. Thank you.

Okay. Any other -- any other public comments? Your name?

MR. A. CARRANCO: Andrew Carranco, 0179-09

MR. M. WERNER: sir.Thank you.

MR. A. CARRANCO: Just to echo Mr. Soto's comments. While the City of Laredo's expansion is expected to go out to the Camino Colombia bridge in the next 40 or 50 years, I lived in a town in Europe where the train station was about 20 miles out of town, and it does not really promote excellent commerce between Madrid and Barcelona when they're second large -- let's see -- Tarragona was the third largest port of the -- of the nation was off the main railhead. I studied history, and, therefore, you read about towns that moved 20 or 30 miles just to be close to the railhead.

I believe that it's necessary to have that -- a terminal that's in the city, in the center of the city, whether it's in downtown Laredo or even if it's slightly off by 5 or 6 miles, but certainly not 20 or 30 miles as is what is proposed in the first -- in, I believe, the first option. So just to echo Mr. Soto's sentiments again.

MR. M. WERNER: All right. Thank you.

Okay. Anybody else?

MR. M. PENA: For the rec- -- for the record, my name is Mario Pena. I'm with the 0179-10
International Bank of Commerce and I'm also the current chairman of the Laredo Chamber of Commerce, and we have our president here today, Miguel Conchas. I, for the life of me, cannot recall -- and maybe I was asleep in 2013 -- about the -- the hearings that were held during that time. So I'm hearing about it now and like other people have expressed, you know, we're playing catch up. It's like it's already almost a done deal.

And, you know, we're talking about informing or getting the private sector involved, just the Chamber of Commerce alone represents 715 active members. That's a huge chunk of -- of the private sector business. There's also about eight other organizations in town that represent different sectors.

Like the licensed U.S. Customs Health Brokers Association, the Laredo -- I'm sorry -- Logistics and Manufacturing Association, Laredo Development Foundation, La Asociacion Empresarios Mexicanos, and I can go on and on. We have Laredo Builders Association here. All of these are business organizations and collectively they probably represent over 2,000 businesses. I think it would have been a good idea to have had a little bit more notice, a little bit more information, and have held a meeting specifically targeted to those groups and get their input. Because, you know, it's -- it's too important, you know, just to, you know, have one meeting and expect the feedback from a handful of people and say, okay, we got feedback. I -- I think it's very, very important that we get feedback from all of the active organizations in town. Thank you.

MR. M. WERNER: All right. Thank you.

Okay. I have been told that Congressman Cuellar is -- will be arriving here shortly. I'd like to give anybody else the opportunity to -- to make comments if they would like.

COMMISSIONER J. GALO: Does he only get three minutes?

MR. M. WERNER: I think we'll give him

more than three minutes.

(Discussion off the record.)

MR. M. WERNER: Okay. Ladies and gentlemen, we have -- Congressman Henry Cuellar has joined us. So I'd like to throw it to the Congressman and give him a chance -- a chance to make some -- make some comments.

CONG. H. CUELLAR: Thank you. Yeah. I don't want to I'm actually more here to listen. Sorry. I was at the children's -- I was at the children's home right now presenting some books.

Commissioner, how are you all doing?

I -- I just -- First of all, thank you so much.

MR. M. WERNER: You bet. Thank you.

CONG. H. CUELLAR: We're -- Well, let me just give you a quick background. I think you all know the background on this.

In 2008, there was going to be a study between -- have a study from Oklahoma to San Antonio. I added an amendment, changed the law, that they ought to look at South Texas. I couldn't say Laredo because, as you know, we can't do any earmarks anymore, so it just said South Texas. The Department of Transportation is looking at different areas.

I think at one time they were looking straight going into Corpus, one into the -- I believe, Brownsville, one in the McAllen area, and then one in this -- in this particular area. I think now it's been limit -- I think it's -- it's been narrowed down to two options: One going in from Laredo to San Diego, and then from there it can go to Corpus or you go down McAllen and it can come back to Laredo. Or another one that -- it gets close to Laredo. And I think the reason why it gets close to Laredo -- and we'll work with the city -- is that Monterrey already has the right-of-way on this and we've got to make sure that -- that we all work this out. It's a long-term project. It's a long-term project. It's not going to be done overnight. And it's going to be one that the private sector might come in -- it might be a Mexican company, it might be an American company, it could be a Spanish company, it could be a French company, it could be a Japanese company -- with a joint partnership on that. But the first part that we got to do is to make sure that we get this study.

I don't know if y'all went over the -- the time period, the time period as to when the study -- this is a preliminary. I -- I hope you all have looked at the preliminary study that has been done. I know we

got some friends from Monterrey and I want to thank them for traveling all the way up here. I was in Monterrey a couple days before July the 4th, and I see some of them here, and Javier Medina, my good friend, and all of the friends that we have here from Monterrey, but I certainly just want to say thank you.

I'm not here to speak, even though I'm doing that right now, but I'm more here to listen so I just want to say thank you. A long-term project. But everything long term starts off with a first step on that.

So, anyway, thank you so much. I'll be back here for a while if y'all need anything. And then I have to go out of town first thing in the morning so I've got to go home and pack, but I just want to say thank you so much for -- for being here. Thank you so much.

MR. M. WERNER: Okay. Thank you, Congressman. Thank you.

(Applause.)

CONG. H. CUELLAR: And, I'm sorry, I missed the -- who is the speak -- Mario Pena, I'm sorry I missed your speech.

MR. M. WERNER: Okay. That -- If there's no one else who would like to make a public comment that

will conclude the public comment portion of the -- of the -- of the meeting. The staff will be back at the tables. We'll be happy to answer -- answer any questions that anyone -- anyone may have.

And again, please take a comment card, fill it out, e-mail it, mail it in. We'd like to -- we need -- we need to get the comments as part of the -- the environmental process. So, again, thank you everyone. I know it's -- we appreciate you taking time out of your evening to come -- to come to the meeting, and it -- it's very important that we -- that we get your comments and input on this study. So thank you very much.

* * * * *

COURT REPORTER CERTIFICATION

COUNTY OF BEXAR)
STATE OF TEXAS)

I, Dicie Lee Eytcheson, a Certified Shorthand Reporter in and for the State of Texas, do hereby certify that this transcript is as true and accurate a record as possible, transcribed by me through computer-aided transcription.

And further certify that I am not a relative or employee of any of the parties hereto, nor interested directly or indirectly in the outcome of this session.

WITNESS MY HAND, this the 16 day of August, A.D. 2016.

Dicie Lee Eytcheson

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WORD INDEX

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Transcript of the Testimony of

Hearing TxDOT

Date:

August 10, 2016

Case:

OPEN HOUSE/PUBLIC HEARING

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TEXAS DEPARTMENT OF TRANSPORTATION

OPEN HOUSE/PUBLIC HEARING

TEXAS-OKLAHOMA PASSENGER RAIL STUDY (TOPRS)

Texas Department of Transportation

7901 IH-35

Austin, Texas 78753

AUGUST 10, 2016

5:30 P.M. - 8:00 P.M.

MARK WERNER: Good evening, everybody. My name is Mark Werner, and I'm the planning section director for TxDOT and the public hearing official officer for tonight's hearing. The purpose of tonight's hearing is to get public comment on the Texas-Oklahoma Passenger Rail Study.

Just to kind of give a little run-through, we've got the format, the overview. We'll talk about the environmental overview, the schedule, and then we'll start the public comment section after the presentation.

So tonight's meeting is more formal than the other meetings we have. This is the public hearing. We will be taking public comments. We won't be responding to comments at the meeting tonight. We'll just be recording your comments with a court reporter, and then the comments will be compiled and responded to in the final EIS document. So that's what we're going to be talking about, the Texas-Oklahoma Passenger Rail Study.

The reason you're here is, of course, to learn more about the project, ask questions and to get your feedback on it, and so that purpose is to get your comments on the study. You can make verbal comments tonight at the end of the meeting. There is also comment cards in the back and you can fill out and put in the box. You can also e-mail them to me. And the comment period is on until

October 29th at 5:00 p.m.

AUDIENCE MEMBER: August.

MARK WERNER: So these are the way that you can provide your comments, as verbal comments tonight; you can make written comment on the comment cards. And please fill them out. Please make comments. We need public input. It's part of the process, so we need your input on the study.

Let's do a little overview of the project. This is a planning level study. It's an 850-mile corridor from Oklahoma City to Fort Worth [sic]. The study began in 2012 funded by an FRA grant, and in 2013 we had a series of public scoping meetings in order to get the public's input on what they felt that the service should look like. We went through and announced those with those alternatives that were suggested, and then in the winter of 2014 we came out with a list of alternatives that we're going to take and the final EIS that would be evaluated, and those that became at the top is what we're representing tonight.

So during the study we looked at a range of alternative service types. We went and looked at everything from conventional Amtrak at 79 miles an hour, all the way up to high speed at 220 miles an hour. All the alternatives that were evaluated by the same environmental criteria; and, of course, the purpose of the meeting tonight is to

get comments on the project.

The purpose of the Environmental Impact Study needs a purpose indeed, and the purpose of this study was to enhance the mobility and providing an enhanced passenger rail service as a transportation alternative that was competitive with automobile, bus and air travel.

The need that we're trying to address is to improve existing passenger rail service and other modes of transportation in the corridor. And one thing you're looking at is as population grows and the economy grows, there is going to be an increasing demand and congestion on our existing transportation system, and this is a means to help alleviate that.

There is limited intercity passenger rail service right now, and that's another thing we'd like to see improved. Also, as you increase your vehicular traffic, your air quality is going to decline. And then you get an increase in truck traffic and rail traffic. You've got a safer mode to travel other than the highways. That would be another need that we try to address.

What is a planning level study? This is a high level study that looks at the corridor to determine if passenger rail service is feasible in the corridor, and that's what the purpose of this study is, and then from that point you can go to the project level. So that's what we

started in this planning level study, to kind of determine does passenger rail service in this corridor make sense; and, if so, what type of passenger rail service. Because of the size and complexity of the study -- of the area, that's another reason to do that, so you're not spending a lot of money on a project level study that doesn't pan out. And so we'll get a Record of Decision on the environmental study.

This is the study area that runs from Oklahoma City down to South Texas. It's 850 miles. We broke the corridor up into three sections because we felt when we started the study that there is going to be enough difference in the demographics and stuff. There may be different services required for different corridors, and that's what we found.

We had the northern section from Oklahoma City down to Dallas/Fort Worth, central from Dallas/Fort Worth to San Antonio, and the southern sections from San Antonio down to the border, which is Laredo and Rio Grande Valley.

These are the types of services that we're looking at, as mentioned earlier. Conventional Amtrak service, again, is 70 to 90 miles an hour. Trips per day in these stations are a little bit closer together. You don't have assigned seating.

And then you look at a higher speed, which are speeds up to 125 miles an hour, more trains per day and more

reserved type seating. And then true high speed, speeds up to 220 miles an hour, your stations are 50 to 100 miles apart, more reserve type seating like air fare, and then more trips per day too.

On the environmental part, like I say, every alternative was evaluated for environmental criteria. These are the criteria that we looked at, air quality, natural resources, looked at energy, geological issues, also looked at farm and land use, impacts to that, environmental justice impacts, impacts to any historical resources, and construction impacts. Of course, this is a planning level study, so all these were looked at a high level. They weren't looked at the ground project level.

This is the northern section. During the analysis, there is not enough ridership to support high-speed rail in this corridor or higher speed. So this would be a conventional Amtrak type service, basically follows existing Heartland flyer route. The only difference would be down in Fort Worth; we'd make a connection to Dallas on the TRV line. We're looking at four round trips a day on this.

Now, the central section has significant ridership, enough to support true high speed in the corridor. And these are the alternatives that we're recommending moving forward. All the alternatives are

followed basically the same alignment, build the rail down to San Antonio, the difference being as you get up into the metroplex, how do you serve the metroplex. And there is one -- photograph C4A, which serves Dallas, makes a connection to D/FW and across to Fort worth. B would make a -- go to Arlington and split and serve Fort Worth and Dallas that way. And then C would be a loop that would go up and serve Dallas/Fort Worth and then also the airport. The potential of this is alternate trains possibly. So you can have one train go up to Dallas and next train go to Fort Worth, so you can serve each city equally.

Now, on the southern section, these are the alternatives that we're presenting. During the public scoping period, there is a lot of interest that people thought that there should be service that go down to Monterrey, Mexico. That wasn't part of the scope of our study, but we did some high-level work, and there looks to be sufficient -- there might be sufficient ridership to support high-speed service from San Antonio down to Laredo to Monterrey, Mexico, but there would be more -- more study needs to be involved on that. The other alternative would be for higher speed service that would go down and serve the Rio Grande Valley and could also have connections from -- to Laredo, Corpus Christi. As I mentioned, this is a draft report in EIS.

We're going now to comments. And these are ways you can submit your comments here. There is information on the web site. We have a copy of the EIS back here. It's only 160 pages. So if you want to read that before you leave, go for it. But then you can also look at it online, on the TxDOT web site. But we encourage you to do that, look at it, and leave your comments.

Here is the schedule that we stated in 2012. There is the scoping meetings. We're now in the formal public comment period on the study, and then we're looking to have all the public comments compiled and submitted to the FRA, which is the lead agency, towards the end of this year, look to have a Record of Decision this year, first part of next year.

That's really our next step is to get your comments tonight. As I said, this is a public hearing. We won't be answering or responding to questions. We're just taking your comments. We have a court reporter here who will record all of the verbal comments. And then also the written comments, please submit those. Those will be combined into the environmental document. They'll be addressed in the document and submitted to the FRA, who will make a final ruling on the study.

So that concludes the presentation portion, and now we'll begin the verbal comment. But before I start

that, are there any elected officials in the room that would like to come forward and make a statement? No. Okay.

When you come up to the microphone, please state your name and your affiliation. We like to try to limit comments to three minutes. So as I call your name, please come forward. Bruce Ashton. Come to the microphone here and then provide us your comments.

BRUCE ASHTON: Comments will only get better after I leave I'm sure. I'm Bruce Ashton, San Antonio. I'm with the National Association of Railroad Passengers. We have a gate for better, effective rail transportation across the United States, especially here in Texas. We have reached a point where something has to be done. So your plan is wonderful. We recognize that we have a population that is more enthusiastic about having their own private car, listening to their own private radio stations, and to get them out of the cars is going to be a monstrous job. So I leave here with a challenge to how do I convince people that we do need to look at this. We do need to think about less concrete, more rails. I want to tell you I am really fearful about the task that we have before us. My condolences. Congratulations on coming forward with the plan. Thank you. 0180-01

MARK WERNER: Thank you. Okay. Does anybody else want to come up and make a comment? We have cards in

the back, so -- okay. Great.

CLARE BARRY: I'm Clare Barry. I'm also on the board of the National Association of Railroad Passengers, and I live here in Austin. And I do think it's a great thing that we're going forward with this study. It's been kind of a long time in the making, and I encourage anyone here who is an advocate for passenger rail and intercity passenger rail in particular to spread the word. I think if we're needing to have the state legislature involved it's going to take everyone who is an advocate for projects like this to make some kind of personal contact with respect with the state legislator and let them know that there are people in Texas -- I really think there are a lot of people in Texas who really think we need passenger rail. So thank you.

MARK WERNER: Thank you. Anybody else? All right. If there is no one else who'd like to make a public comment, we'll be hanging around by the tables if you want to ask more questions. I know we had questions and comments earlier this evening, so please feel free to talk to staff. We'll be happy to answer your questions. Thank you for coming tonight. We appreciate you coming out. I know there a lot of things you could be doing, and we appreciate your interest. So thank you.

* * * * * *

THE STATE OF TEXAS

COUNTY OF BEXAR

I, BARBARA GRIFFIN, a Certified Reporter in and for the State of Texas, do hereby certify that the above and foregoing contain a true and correct transcription of all proceedings, all of which occurred and were reported by me.

WITNESS MY HAND, this the _____ day _____, A.D. 2016.

_____

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Submittal 0181 (Arlington Public Hearing Transcript, August 11, 21016)

In the Matter Of:

TEXAS-OKLAHOMA PASSENGER RAIL STUDY

PUBLIC HEARING

August 11, 2016

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TEXAS-OKLAHOMA PASSENGER RAIL STUDY

PUBLIC HEARING

AUGUST 11, 2016

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BE IT REMEMBERED that the above-styled matter came on for hearing on the 11th day of August, 2016 at 6:00 p.m., at the office of the North Central Texas Council of Governments, located at 616 Six Flags Drive, Arlington, Texas. The following proceedings were transcribed by Shannon N. Head, Certified Shorthand Reporter in and for the State of Texas.

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I N D E X

P R O C E E D I N G S

MR. MARK WERNER: Ladies and gentlemen, it's 6:00 now. We would like to start the presentation of our hearing, so if everyone could please take a seat.

Okay. Good evening. My name is Mark Werner. I'm the Rail Planning Director and Public Hearing Officer for tonight's public hearing. The purpose of tonight's hearing is to take public comments on the Texas Oklahoma or TOPRS, Environmental Impact Statement study.

Agenda for tonight's meeting: We'll go over the format. You'll get a little overview, talk about the Environmental aspects, the schedule, and then the public comments. So tonight is a formal public hearing.

It's a little different from the other meetings we've had, the scoping meetings. During the public comment period we won't be responding or answering any questions. We'll just be taking your comments and recording those as public record. And those go to the environmental documents. The presentation will kind of describe a little bit about the TOPRS project, and we'll go from there.

So why you're here tonight is, of course, to learn more about the project, review the purpose and

needs, and then provide comments to us on the study.

There are several ways that you can submit comments. Of course, tonight we'll be taking your verbal comments. We have a court reporter who will record all your comments. You can also make written comments. We have comment cards at the front desk. We also have speaker cards. If you would like to speak, please fill one of those out. You can also fill out the cards. You can turn them in tonight or you can e-mail them to me at the address on the screen or mail them to the address on the back of the comment card. All comments are due by 5 p.m. on August 29th. That's the end of the comment period.

Now giving a little overview of the project: This is a planning level study to determine the feasibility of passenger rail service in the corridor, 850-mile corridor, from Oklahoma City down to South Texas. The study began in October of 2012. In the fall of 2013 we went to the corridor, had a round of scoping meetings, took public comments on what they felt the service should look like.

And in 2014, we took those comments, evaluated the alternatives, and presented the alternative we would be moving forward into the final environmental documents. During the study, we looked at

a range of different service types in the corridor on everything from conventional Amtrak service, all the way up to fully electric high-speed services at 220 miles an hour.

All the alternatives we're presenting tonight were evaluated against a set of environmental criteria. And we'll talk a little bit more later. And then this is the final review process for the study to get public input on the project.

Study Purpose and Need: This is something that every Environmental Impact Statement has. And the purpose of this study is to enhance intercity mobility by providing enhanced passenger rail service as a transportational alternative that is competitive with automobile, bus, and/or air travel.

And the need is to address inadequacies in existing passenger rail service or other modes of transportation to meet the current and future mobility needs in the EIS Program corridor. Such things that we'll address will be, you know, increases in population needs, economic increases, the greater and greater demands on the travel network, reducing -- reliability of the transit network.

We're also looking at -- there's limited intercity passenger rail service in the corridor in some

sections. And in other sections, there's none. So ways to improve that, and improve interconnectivity in the corridor. Also, with increased travel demands, you're also -- you increase air pollution. Higher air qualities, ways to address -- address that.

And then also the growth in truck and freight traffic, safety issue on the corridor, to provide a means to travel to -- a safer means to travel than driving on congested roads.

Okay. What is a Planning Level Environmental Study? This is something that the Federal law allows us to look at a large group of projects that do a high-level evaluation to determine which of those projects warrant further study.

And this is the first step in the process of this corridor. And because of the size and complexity of this corridor, we went with this Planning Level Study to determine what type of passenger rail is feasible in the corridor, if any at all. And to come up with some alternatives. At the completion of this process, we'll get a Record Decision that will allow us to move further on any projects that are determined viable to move forward.

This is the Study Area. 850-mile corridor from Oklahoma City down to South Texas. When

we started this study, we realized that there could be some differences in the type of service that would fit in the corridor. So we broke the corridor up into three sections. A Northern Section from Oklahoma City down to Dallas/Fort Worth, a Central Section from Dallas/Fort Worth down to San Antonio, and then the Southern Section from San Antonio down to South Texas.

These are the service types that we looked at again. We looked at conventional Amtrak service, speeds around 79 miles an hour. Your stations are, you know, 15 to 60 miles apart. You're looking at, you know, a few trains a day, unreserved seating. This would be using existing freight railroad -- or freight tracks.

Then you go to higher speed, up to 125 miles an hour. This could be a -- use some freight tracks, but then also have some dedicated tracks. You have reserved seating, a business class-type service. And then you go to full true high-speed, 220 miles an hour, fully dedicated tracks. Your stations are 50 to 100 miles apart. Reserved seating, you know, business class, and food service, and that type of thing.

Okay. In the Environmental -- all the alternatives that we're presenting tonight were evaluated by these -- with these criteria right here.

We looked at, you know, impacts to air quality, water quality, endangered species, land use, environmental justice issues, constructability. But all these, every alternative was evaluated against these criteria to see what the impacts were by the service.

Okay. This is the Northern Section. The study determined that there was insufficient ridership to support higher speed or high-speed service in this section. So, in this section we're recommending a conventional Amtrak-type service, using the -- it would be the existing Heartland Flyer route from Oklahoma City down to Fort Worth and reconnect across Dallas on the TRE line. We're looking at about four round trips a day for this service.

The Central Section has three alternatives that we're recommending. These are all true high speed. There's enough ridership to support true high-speed service in this section. All these alternatives use basically the same alignment from Hillsboro, south down to San Antonio.

The difference is as you get up into the Metroplex, how you serve the Metroplex. C4A is going to Dallas across to DFW and then to Fort Worth. B, would be a connection in Arlington that would split and then go to Dallas and Fort Worth. And then C is a loop that

could go -- you could go up to Dallas/Fort Worth. And also a possibility that you could run trains bi-directly the other way to Fort Worth, and go that way first, as well.

The Southern Section. These are the alternatives that we presented to move forward. When we had our scoping meetings, there was a great deal of interest expressed in having the service connect down to Monterrey, Mexico. So we looked at that. We didn't -- Monterrey wasn't part of the study, but we were able to get some preliminary information that shows that there could be the possibility for enough ridership to have true high speed from San Antonio down to Monterrey, Mexico.

The other section is S4. It's a higher speed service from San Antonio down to Rio Grand Valley. It also has connections to Laredo and to Fort Worth -- I mean Corpus Christi.

Okay. Now the Environmental Impact Statement, we have a copy available at tonight's meeting. It's 860 pages. I doubt if anybody is going to want to read that tonight, but it's available on our website. There is also available at COG, NCTCOG has a copy here in the office. We have a copy in our office in Austin. And there's a copy in the Laredo office.

And then, of course, you can look at it online.

Here is our study schedule. You can see we're now in the public hearing phase of the study. The next step would be to submit the final EIS Record Decision to the FRA, which is the lead Federal agency. We're hoping that we could have a Record Decision by the end of the year, first part of 2017.

But the next step is to get the comments from the public comment period. And we'll take the comments from tonight's hearing and the other public hearings that we had. Those will be incorporated into the environmental documents. We'll address the comments in that document. It will become part of the final document that will be submitted to the FRA to get our Record Decision.

So here is how you submit your comments. Verbal comments tonight will be -- the speaker will sit at the desk over here. If anybody would like to speak, we have comment cards. Please fill those out. We would like to get your comments. Also, if you prefer not to make verbal comments, please fill out comment cards and drop them off in the box or e-mail them to me or mail them in at the address on the screen.

Okay. That concludes our presentation portion of the study. I would like to acknowledge a few

of our elected officials tonight. We have Tarrant County Judge, Glen Whitley. I think he may have already left. Okay. And then we have a counsel member from the City of Arlington, Kathryn Wilemon is present with us. Would you like to make a comment?

MS. KATHRYN WILEMON: No, that's fine.

MR. MARK WERNER: Also, we have a State Representative, Chris Turner, here tonight.

And also, representative for Tarrant County Commissioner, Cary Ficus. Would you like to make a comment? Or --

MS. CARY FICUS: No, I'm fine.

MR. MARK WERNER: All right.

Okay. Now we're going to begin the public comment portion. We have the microphone set up over here. Please state your name and your affiliation, if any. Provide your comments. We would like to limit comments to 3 minutes to allow everybody a chance to comment. So as you're called, your name, please come forward and make your comments. Dan Lamers.

MR. DAN LAMERS: Good evening. Mr. Werner, thank you for having your public meeting here in Arlington and giving us an opportunity.

My name is Dan Lamers. I'm a Senior Program Manager for the North Central Texas Council of

0181-01

Governments. We are the MPO for the Dallas/Fort Worth area. The Regional Transportation Council is the independent policy body for the MPO in the Dallas/Fort Worth area.

I'm going to read a statement of support for the concept of high-speed rail, with some additional comments. And I have already put a copy of my statement in the box, with some additional comments as well. So, this is on behalf of the Regional Transportation Counsel and the North Central Texas Council of Governments.

High speed rail service is a vital transportation concept that will help sustain local, regional, and State, and National economies. In the North Texas Region this transportation system will serve as principal route to and from the Dallas/Fort Worth Region to points northward to Oklahoma and southward to Austin, San Antonio and beyond.

The Regional Transportation Council and the North Central Texas Council of Governments support implementing a high-speed passenger rail service within and approaching the Dallas/Fort Worth region. Connectivity to other high-speed passenger rail services within the Dallas/Fort Worth region will be vital to providing a high-speed passenger rail network. Additionally, connectivity to other transit modes within

the region is critical to the success of a high-speed rail system.

The Regional Transportation Council and the North Central Texas Council of Governments encourage the formulation of a recommended alternative to be flexible regarding connection within the Dallas/Fort Worth Region to the other high-speed rail corridors that are under study.

0181-02

The preferred alignment alternatives recommended in this study are not consistent with the adopted Mobility 2040, the Metropolitan Transportation Plan for the North Central Texas Region, which was adopted by the RTC in March of this year. Alternative C4 and C4B are not consistent with the plan at all, while alternative C4C is partially consistent with the plan.

0181-03

In addition, the preferred alignment alternatives are not consistent with the RTC's adopted three-station concept and one-seat ride policy that they have adopted as part of their transportation plan.

That concludes my comments. And as I've said, there are other comments and a transcript of this in the box.

MR. MARK WERNER: Okay. Thank you.

Okay. Next we have Sandy Wesch.

MS. SANDY WESCH: Good afternoon. My name is Sandy Wesch, and I'm a project engineer at the North Central Texas Council of Governments. And I would like to expand upon the comments that Dan just made. In reviewing the Draft Environmental Impact Statement, documents and the Tier One Study Process does not accurately recognize the interdependency and the need for coordinating with other high-speed rail environmental documents that are currently being developed. 0181-04

In fact, it appears that the document may be in conflict with the planning and environmental efforts under way for the Dallas-Fort-Worth high-speed rail core service, that the service that would be run between Dallas and Fort Worth. The TOPRS, EIS seems to consider Dallas and Fort Worth as separate regions and discounts the dynamics within our region. Because Dallas/Fort Worth is really serving as the crossroads TOPRS and the Houston to Dallas high-speed rail line, the North Central Texas Council of Government is in a unique position.

We serve as the MPO. Federal requirements necessitate that the agency coordinate the region's transportation systems development to determine the best way to provide system connectivity. The Regional 0181-05

Transportation Council supports high-speed rail as Dan has mentioned. The RTC has established policies within the Dallas/Fort Worth area to help guide the future high-speed rail systems operations. This includes the interoperability to provide that one-seat ride to, from, and within the Dallas/Fort Worth region to allow for and encourage both inter- and intra-regional high-speed rail connectivity.

Additionally, the recent US Department of Transportation request for proposals for high-speed rail development identified Dallas/Fort Worth in connection to San Antonio, Oklahoma City, and Little Rock as a potential single corridor, not recognizing the interconnectivity of all of these corridors as well as the privately -- the development of the private segment from Houston to Dallas seems to be a flaw. It appears that the approach being used for high-speed rail is not conducive to the beginnings of a high-speed -- a national high-speed rail system. Thank you. 0181-06

MR. MARK WERNER: Thank you.

Okay. The next speaker is Jessica Attas.

MS. JESSICA ATTAS: Good afternoon. Nice to see you again. My name is Jessica Attas. I'm here on behalf of the Greater Waco Chamber of Commerce in Waco, Texas, so we're there on that central route. We 0181-07

represent about 16,000 member business -- excuse me -- 1,600 member businesses and 70,000 jobs in the greater Waco area that are both rural and urban alike.

Our Chamber has really a visionary agenda for economic growth and quality of life. And we're really concerned with promoting policies that are conducive to help us diversify and grow our economy to help improve quality of life.

We recognize that Texas is the 11th largest economy in the world. And that we believe that a robust and multilevel transportation infrastructure system will be necessary to help us continue to move people and goods and services for a 21st century economy.

Texas leads the nation in population growth, as probably everyone in this room knows. I believe that we really must act now to expand and to improve our existing infrastructure. We must be forward thinking and strategic as we plan for a Texas that has changing needs -- for the changing needs of our great state, must recognize the realities of demographic changes to come and respond accordingly.

Business as usual is an unacceptable response because the changes to come are not usual. We encourage TxDOT and the Commissioners to seek Federal funding for the next phase of study. And, in the

future, we look forward to working together for a station in Waco that would increase connectivity and improve quality of life for those in our region. Thank you for your work today, and we look forward to seeing what's to come.

MR. MARK WERNER: Thank you. Okay. There's plenty of time. Would anybody else like to make a public comment?

Okay. Well, that concludes the -- our public hearing for tonight. Thank you all for coming. And I know there are other things you could be doing this evening. We appreciate you coming out. Staff will be hanging around to answer any questions you may have.

Thank you for coming.

(Proceedings recessed at 6:19.)

REPORTER'S CERTIFICATE

STATE OF TEXAS *

COUNTY OF TARRANT *

This is to certify that I, Shannon N. Head, Certified Shorthand Reporter, in and for the State of Texas, certify that the above and foregoing Public Hearing was reported stenographically by me at the time and place indicated, and that the transcript is a true record of the proceedings.

I further certify that I am neither counsel for, related to, nor employed by any of the parties in the action in which this proceeding was taken, and further I am not financially or otherwise interested in the outcome of the action.

Given under my hand of office on this the 22nd day of August, 2016.

_____

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Appendix G
Response to Comment Matrix

Submittal #	Comment #	Commenter Association	Comment	Response
100	1		If the land of fellow Texans is taken, then it better be for a high speed bullet train that is on one continuous rail. We want optimal benefit. No partial, half-efficient remedies will be acceptable.	As detailed in Section 2.3.3, Preferred Alternative, the recommended preferred alternatives in the Central Section are all high-speed rail alternatives. A high-speed rail alternative was also recommended as a preferred alternative, along with some higher-speed rail alternatives, in the Southern Section. Recommendation of these preferred alternatives does not preclude connectivity between geographic sections but it does not assume connectivity either. Details about how preferred alternatives might connect would be analyzed during project-level analysis.
101	1		I can't make the open house but I would like to know if there is a way to show support for a project that would connect DFW, ATX, SA, and Houston?	The Texas-Oklahoma Passenger Rail Program (Program) includes route alternatives that connect Dallas-Fort Worth, Austin (via the airport or with an option of direct service to downtown via connections with trains operating over the UPRR from Taylor to Austin), and San Antonio. The Program does not include rail route alternatives connecting Houston.
102	1		Where in Southern Texas will the rail be located exactly?	The alternatives evaluated in the EIS have been developed to a level of detail appropriate for a service-level analysis. The route alternatives represent a potential corridor where rail improvements could be implemented, but do not specify the precise location of the track alignment. Route alternatives in the Northern, Central, and Southern sections could be built as individual, stand-alone projects or in combination with alignments in another section. In addition, more than one alternative in the Central or Southern sections could be built in the future because the alternatives provide service options for different locations. Details on connecting the alternatives would be determined during project-level analysis at a future time.
102	2		Will our taxes be raised in order for this project to be fulfilled?	A Funding and Finance Plan was prepared for the Program as a high level framework for determination of best value alternatives that might be attractive for public funding and private financing. The Plan concluded that the C4A, C4B, and C4C high-speed and higher-speed alternatives appear to have the best potential to appeal to private investors. It also found that the N4A Conventional, and the S6 and S4 higher-speed rail alternatives appear to require an estimated annual net operating subsidy based on the service-level planning study. These three alternatives would most certainly require public funding for on-going operations. In addition, these alternatives are likely to be least attractive for private finance (equity and debt). Route alternative finance and delivery options that provide value for money for the state and customers alike would be assessed in more detail at the project-level.
103	1		Closer access to Laredo in regards to route choices.	As detailed in Section 2.3.2.3, Southern Section:San Antonio to South Texas, all the alternatives in this section serve Laredo.
104	1	Webb County	Webb County Supports the designation of Laredo as a station location.	As detailed in Section 2.3.2.3, Southern Section:San Antonio to South Texas, all the alternatives in this section serve Laredo. The EIS did not evaluate specific station locations, and no conclusion about the exact location of stations were made as part of this service-level EIS. However, based on ridership data and transit connectivity information developed as part of the alternatives analysis for this EIS, the cities in which stations could potentially be located have been determined. In some cities, station locations have been assumed for the purposes of the EIS (Table 2-9) but a final decision on exact station locations was not made as part of the EIS. Station location, size, and design will be determined during project-level analysis.
104	2	Webb County	The direct path of S6, with high-speed rail service, has the greatest impact on reduced travel times. It also relieves vehicle traffic congestion and vehicle emissions and has less impact on overall air quality.	As detailed in Section 3.20, Travel Demand and Transportation, Alternative S6 High-Speed Rail would have a substantial positive effect on travel time savings for automobiles and transit. This alternative would also reduce regional emissions, having negligible long-tern regional benefits.The other alternatives in the Southern Section would have adverse long-term effects on regional air quality.
104	3	Webb County	Webb County should NOT support the selection of Alternative Route S4, which does not involve high-speed rail service or a direct route from the IH-35 Corridor at San Antonio to Laredo/Webb County, and eliminates the possibility of high-speed rail service from Laredo and San Antonio to Monterrey. The Southern end of the IH-35 passenger rail corridor MUST be Laredo and not some other of the cities in the Rio Grande Valley.	More than one alternative in the Central or Southern sections could be built in the future because the alternatives provide service options for different destinations. Alternatives S4 and S6 are assumed to serve two distinctly different areas of the state, and selection of one does not preclude selection of the other. Details on connecting the alternatives would be determined during project-level studies.
104	4	Webb County	For overall speed and type of service, Webb County should support and endorse the EIS selection of high-speed rail service characteristics.	As detailed in Section 2.3.3, Preferred Alternative, the recommended preferred alternatives include S4 Higher-Speed Rail and Alternative S6 Higher-Speed and High-Speed Rail.
104	5	Webb County	Webb County should encourage the continuing conversation between FRA, TxDOT, and Mexico, on a regular, scheduled basis, to include local, state and federal elected officials.	As detailed in Section 8.1, Agency Involvement, Federal, State and local agencies were consulted during preparation of this EIS and would be consulted during preparation of project-level analyses.

Submittal #	Comment #	Commenter Association	Comment	Response
106	1	Webb County	Interested in supporting true high-speed rail. It should not be higher-speed rail from San Antonio to Laredo.	As detailed in Section 2.3.3, Preferred Alternative, the recommended preferred alternatives include Alternative S6 Higher-Speed and High-Speed Rail. At the Service level, both speeds are recommended for further study, with future service anticipated to be coordinated with the service class that will be provided within Mexico.
110	1		Homogeneity matters. Have ALL higher speed (not high speed).	As detailed in Section 2.3.3, Preferred Alternative, the recommended preferred alternatives in the Central Section are all high-speed rail alternatives. A high-speed rail alternative was also recommended as a preferred alternative, along with some higher-speed rail alternatives, in the Southern Section. Recommendation of these preferred alternatives does not preclude connectivity between geographic sections but it does not assume connectivity either. Details about how preferred alternatives might connect would be analyzed during project-level analysis.
110	2		To the Valley. One off to Laredo serves a more freight purpose.	More than one alternative in the Central or Southern sections could be built in the future because the alternatives provide service options for different destinations. Alternatives S4 and S6 are assumed to serve two distinctly different areas of the state, and selection of one does not preclude selection of the other. Details on connecting the alternatives would be determined during project-level studies.
110	3		Houston?	Houston is not in the Study Area, and connectivity was not part of the project purpose and need, which is gocused generally on the IH-35 corridor of cities. However, the alternatives in this study would not preclude potential rail connections between this study area and Houston, which would have to be the subject of a separate study.
111	1		Connection to downtown Austin needed - CapMetro Green Line or airport connector?	The Program includes rail route alternatives that connect Austin-Bergstrom International Airport to Dallas-Forth Worth and San Antonio. As detailed in Appendix C, Texas-Oklahoma Passenger Rail Study Route Alternatives Analysis, Alternatives C4A and C4B also has an option of direct service to downtown Austin via conections with trains operating over the UPRR from Taylor to Austin.
111	2		Would Corpus Christi terminal be at airport or downtown?	As detailed in Appendix C, Texas-Oklahoma Passenger Rail Study Route Alternatives Analysis, the third leg of Alternative S4 Higher-Speed Rail would include a new station facility at Corpus Christi International Airport not downtown Corpus Christi. The location of the Corpus Christi station was assumed at the program level; however, no decision is being made on specific station locations within a city. Selection of specific station locations would be part of a project level study.
115	1		I wish to request the replacement of this notion of a rail with the design for the hyperloop.	The purpose of this DEIS is to provide service level analysis on passenger rail service and does not include analysis of other mode choices, such as highway or air travel or other technologies such as hyperloop, which was not considered or evaluated as a viable transportation option.
116	1		I respectfully request that instead of a rail you build a hyperloop. Please look into building a hyperloop for Texas.	The purpose of this DEIS is to provide service level analysis on passenger rail service and does not include analysis of other mode choices, such as highway or air travel or other technologies such as hyperloop, which was not considered or evaluated as a viable transportation option.
117	2	RTC/NCTCOG	Connectivity to other high-speed passenger rail services within the Dallas-Fort Worth region will be vital to providing a high-speed passenger rail network. Additionally, connectivity to other transit modes within the region is important for a successful high speed rail system.	The purpose of this study was to consider intercity passenger rail service across a broad geographic area and to develop planning-level service alternatives across the Study Area. The preferred alternatives include potential improvements to passenger rail service between Dallas and Fort Worth. Connections of the Program route alternatives to other passenger rail service in the region are detailed in Appendix C, Texas-Oklahoma Passenger Rail Study Route Alternatives Analysis. The preferred alternatives from this study would not preclude local agencies from developing more refined service alternatives at the project level, including station stops, alignments, and service planning.
117	3	RTC/NCTCOG	The Regional Transportation Council and the North Central Texas Council of Governments encourage the formulation of a recommended alternative to be flexible regarding connection to planned high-speed rail service from Dallas to Houston and planned high-speed rail service from Fort Worth to Dallas.	Connections of the Program route alternatives to other passenger rail service in the region and throughout Texas are detailed in Appendix C, Texas-Oklahoma Passenger Rail Study Route Alternatives Analysis. The formulation of a recommended alternative will be conducted in concert with project-level analysis including consistency with and connectivity to other passenger rail services.

Submittal #	Comment #	Commenter Association	Comment	Response
117	4	RTC/NCTCOG	The preferred alignment alternatives recommended for additional analysis in the Service-Level Draft Environmental Impact Statement are not consistent with the adopted Mobility 2040: The Metropolitan Transportation Plan for North Central Texas plan (Plan). Alternatives C4A and C4B are wholly not consistent with the Plan while Alternative C4C is partially consistent with the Plan.	The North Central Texas Council of Governments (NCTCOG) coordinates with cities, counties and transportation partners to plan road, transit, bicycle and pedestrian transportation improvements for North Texas. Mobility 2035 as updated June 2013 was the most recent Mobility document available from NCTCOG at the time conceptual engineering and alternatives analysis was being completed and the advance Administrative DEIS was being generated. Mobility 2040 was adopted by the Regional Transportation Council in March 2016, after work to prepare the DEIS was well underway. At the service level, the proposed alternatives and corresponding alignments should be consistent with the objectives defined with the Mobility 2040 document. Data from the most current Mobility report at the time would be considered during project-level analysis at a future date. The alternatives developed at the service level would not conflict with alternatives NCTCOG may consider at the project level.
117	5	RTC/NCTCOG	The preferred alignment alternatives are not consistent with the Regional Transportation Council's adopted "Three Station" and "One Seat Ride" policies for high speed rail in the Dallas-Fort Worth region.	Details regarding interactions of the Program EIS prefered alternatives with other potential passenger rail service providers would be considered during project-level studies at a future date. The Program EIS evaluates routes, station cities, and service levels, but does not preclude specific service plans that would be evaluated at the project level.
118	2a-b	Texans 4 HSR	If sections can be built with independent utility then perhaps the project(s) would be enticement for private investment on certain segments. By incrementally building segments would allow an income stream to seed future segments.	A Funding and Finance Plan was prepared for the Program as a high level framework for determination of best value alternatives that might be attractive for public funding and private financing. The Plan concluded that the C4A, C4B, and C4C high-speed and higher-speed alternatives appear to have the best potential to appeal to private investors. It also found that the N4A Conventional, and the S6 and S4 higher-speed rail alternatives appear to require an estimated annual net operating subsidy based on the service-level planning study. These three alternatives would most certainly require public funding for on-going operations. In addition, these alternatives are likely to be least attractive for private finance (equity and debt). Route alternative finance and delivery options that provide value for money for the state and customers alike would be assessed in more detail at the project-level.
118	3	Texans 4 HSR	I believe a connection from Monterrey to Laredo would generate significant ridership.	As detailed in Section 2.3.3, Preferred Alternative, the recommended preferred Alternative S6 Higher-Speed and High-Speed Rail include connection between Laredo and Monterrey, Mexico.
119	1	National Association of Railroad Passengers	Extend the daily Texas Eagle southward to Corpus Christi and the Lower Rio Grande Valley. Extend the daily Heartland Flyer southward to Austin, San Antonio, and Laredo. Extensions of existing trains. We support Amtrak and Texas Central trains.	Extension of the Texas Eagle and Heartland Flyer would be an extension of conventional service, and the Program alternatives analysis showed that conventional and higher speed service would not meet the future passenger rail service objectives in this region and would result in a substantial operating subsidy compared to high speed rail service where operation and maintenance costs would be covered by service revenue.
121	1		Coordinate with Amtrak if conventional rail is to be used.	As detailed in Section 8.1.4, Regional/Local Coordination, transit agencies were consulted during preparation of this EIS and would likely be consulted during preparation of project-level analyses.
121	2		Routed too far east of Austin. Needs to go through central Austin. Alternatively, provide a fast, easy way to access from central Austin.	The Program includes rail route alternatives that connect to Austin-Bergstrom International Airport. As detailed in Appendix C, Texas-Oklahoma Passenger Rail Study Route Alternatives Analysis, Alternatives C4A and C4B also has an option of direct service to downtown Austin via conections with trains operating over the UPRR from Taylor to Austin.
121	3		Option to serve Alice, Laredo, Corpus Christi, and Valley is preferable. Concerns that there is sufficient demand for this section.	The Program includes rail route alternatives that connect Alice, Laredo, and Corpus Christi International Airport.
121	4		Include the Lone Star Rail plan or a substitute to provide more local service in the Round Rock to San Antonio corridor with centrally located stations in Austin, San Marcos, New Braunfels, and San Antonio.	Planning for regional rail service between Austin and San Antonio is currently being considered as a joint effort between Capital Area MPO and Alamo Area MPO.
122	1	City of San Antonio TCI	The consideration of mass transit, including high-speed rail, aligns with our transportation goals and would be a tremendous asset to San Antonio and the region. S6 high speed option is our preferred route.	Comment noted. As detailed in Section 2.3.3, Preferred Alternative, the recommended preferred alternatives in the Southern Section include Alternative S6 High-Speed Rail..

Submittal #	Comment #	Commenter Association	Comment	Response
122	2	City of San Antonio TCI	Station locations in San Antonio and Laredo are essential to the success of the system.	As detailed in Section 2.3.2.2, Central Section: Dallas and Fort Worth to San Antonio and Section 2.3.2.3, Southern Section:San Antonio to South Texas, all the alternatives in these sections serve San Antonio and Laredo which are potential station locations. The EIS did not evaluate specific station locations, and no conclusion about the exact location of stations were made as part of this service-level EIS. However, based on ridership data and transit connectivity information developed as part of the alternatives analysis for this EIS, the cities in which stations could potentially be located have been determined. In some cities, station locations have been assumed for the purposes of the EIS (Table 2-9) but a final decision on exact station locations was not made as part of the EIS. Station location, size, and design will be determined during project-level analysis.
122	4	City of San Antonio TCI	The S6 route provides international service to support growth based upon population projections for the future. It is imperative that communication between federal, state, and local entities participate in regular conversation with each other, and Mexico, during the process.	As detailed in Section 8.1, Agency Involvement, Federal, State and local agencies were consulted during preparation of this EIS and would be consulted during preparation of project-level analyses.
122	5	City of San Antonio TCI	Our preferred alignment in San Antonio would bring the rail along SH 130 and run through the southern portion of San Antonio.	The alternatives evaluated in the EIS have been developed to a level of detail appropriate for a service-level analysis. The route alternatives represent a potential corridor where rail improvements could be implemented, but do not specify the precise location of the track alignment. Route alternatives in the Northern, Central, and Southern sections could be built as individual, stand-alone projects or in combination with alignments in another section. In addition, more than one alternative in the Central or Southern sections could be built in the future because the alternatives provide service options for different locations. Details on connecting the alternatives would be determined during project-level analysis at a future time.
124	1		High speed rail is a terrible idea. A big waste of money. The Hyperloop will cost much less and carry passengers much faster.	The purpose of this DEIS is to provide service level analysis on passenger rail service and does not include analysis of other mode choices, such as highway or air travel or other technologies such as hyperloop, which was not considered or evaluated as a viable transportation option.
125	1		I do hope that the proposed high speed rail service between Oklahoma and Texas has a planned stop in Temple as well as Waco.	As detailed in Section 2.3.2.2, Central Section: Dallas and Fort Worth to San Antonio, all the alternatives in this section pass through Temple and Waco which are potential station locations. The EIS did not evaluate specific station locations, and no conclusion about the exact location of stations were made as part of this service-level EIS. However, based on ridership data and transit connectivity information developed as part of the alternatives analysis for this EIS, the cities in which stations could potentially be located have been determined. In some cities, station locations have been assumed for the purposes of the EIS (Table 2-9) but a final decision on exact station locations was not made as part of the EIS. Station location, size, and design will be determined during project-level analysis.
125	2		With the significant projected increase expected for medical services for the largest senior population, a high speed rail stop in Temple is a necessary public health investment. Recruiting of top notch medical professionals to the growing Central Texas area will be improved by greater commuting ease afforded by high speed rail stops in Waco AND Temple.	As detailed in Section 2.3.2.2, Central Section: Dallas and Fort Worth to San Antonio, all the alternatives in this section pass through Temple and Waco which are potential station locations. The EIS did not evaluate specific station locations, and no conclusion about the exact location of stations were made as part of this service-level EIS. However, based on ridership data and transit connectivity information developed as part of the alternatives analysis for this EIS, the cities in which stations could potentially be located have been determined. In some cities, station locations have been assumed for the purposes of the EIS (Table 2-9) but a final decision on exact station locations was not made as part of the EIS. Station location, size, and design will be determined during project-level analysis.
128	1		If high speed rail comes to Texas I sure want it to come to Waco.	As detailed in Section 2.3.2.2, Central Section: Dallas and Fort Worth to San Antonio, all the alternatives in this section pass through Waco which is a potential station location. The EIS did not evaluate specific station locations, and no conclusion about the exact location of stations were made as part of this service-level EIS. However, based on ridership data and transit connectivity information developed as part of the alternatives analysis for this EIS, the cities in which stations could potentially be located have been determined. In some cities, station locations have been assumed for the purposes of the EIS (Table 2-9) but a final decision on exact station locations was not made as part of the EIS. Station location, size, and design will be determined during project-level analysis.

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130	1		How many cars will train consist of? What distance will be required to slow down to a stop?	This EIS is a service-level EIS that evaluates a reasonable range of corridor alternatives and passenger rail service types. As detailed in Chapter 3, Affected Environment and Environmental Consequences, a service-level analysis only evaluates a preliminary alignment to represent each EIS alternative, based on conceptual engineering that considered and avoided obvious physical or environmental constraints. The service-level analysis reviews generalized effects for a large swath within which the project area may occur and reports both the potentially adverse and beneficial effects without delineating the exact footprint of the alignment. These alignments are not refined to optimize performance, reduce cost, avoid specific properties or individual environmental resources, or for any other such considerations. Preferred alternatives selected at the service level may be developed further at a later date and the above considerations assessed at the project level. The project-level analysis determines specific project impacts while the service-level analysis analyzes and describes the general effects by alternative. The service-level analysis includes best management practices (BMPs), design features, and mitigation strategies that would address effects on a broad, service-level scale. The subsequent project-level analysis would include, but not be limited to, these BMPs, design features, and mitigation strategies.
130	2		If elevated, will passenger area be elevated also?	This EIS is a service-level EIS that evaluates a reasonable range of corridor alternatives and passenger rail service types. As detailed in Chapter 3, Affected Environment and Environmental Consequences, a service-level analysis only evaluates a preliminary alignment to represent each EIS alternative, based on conceptual engineering that considered and avoided obvious physical or environmental constraints. The service-level analysis reviews generalized effects for a large swath within which the project area may occur and reports both the potentially adverse and beneficial effects without delineating the exact footprint of the alignment. These alignments are not refined to optimize performance, reduce cost, avoid specific properties or individual environmental resources, or for any other such considerations. Preferred alternatives selected at the service level may be developed further at a later date and the above considerations assessed at the project level. The project-level analysis determines specific project impacts while the service-level analysis analyzes and describes the general effects by alternative. The service-level analysis includes best management practices (BMPs), design features, and mitigation strategies that would address effects on a broad, service-level scale. The subsequent project-level analysis would include, but not be limited to, these BMPs, design features, and mitigation strategies.
130	3		What about excessive noise?	Noise was evaluated and detailed in DEIS Section 3.3, Noise and Vibration, and it has been acknowledged that an increase in noise levels would occur due to temporary construction activities and long term levels during operations. Regardless of route and speed convention, the DEIS acknowledges that rail alternatives would have greater potential for effects related to noise and vibration.
130	4		While an overall good idea, I wonder if a downtown stop is feasible, is it safe, it seems like traffic is getting pretty bad in down town already, will this be another problem?	The EIS did not evaluate specific station locations, and no conclusion about the exact location of stations were made as part of this service-level EIS. However, based on ridership data and transit connectivity information developed as part of the alternatives analysis for this EIS, the cities in which stations could potentially be located have been determined. In some cities, station locations have been assumed for the purposes of the EIS (Table 2-9) but a final decision on exact station locations was not made as part of the EIS. Station location, size, and design will be determined during project-level analysis.
131	1	Waco MPO	The Waco MPO policy Board has endorsed the implementation of a high-speed passenger rail service through Waco and McLennan County and the establishment of a downtown Waco station in Resolution 2016-2, approved on May 5, 2016. The preferred alternatives, as well as the designation of Waco as a potential station location are consistent with recommendations identified within Connections 2040P The Waco Metropolitan Transportation Plan and previous statements of support approved by the Waco MPO Policy Board.	As detailed in Section 2.3.2.2, Central Section: Dallas and Fort Worth to San Antonio, all the alternatives in this section pass through Waco which is a potential station location. The EIS did not evaluate specific station locations, and no conclusion about the exact location of stations were made as part of this service-level EIS. However, based on ridership data and transit connectivity information developed as part of the alternatives analysis for this EIS, the cities in which stations could potentially be located have been determined. In some cities, station locations have been assumed for the purposes of the EIS (Table 2-9) but a final decision on exact station locations was not made as part of the EIS. Station location, size, and design will be determined during project-level analysis.

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131	3	Waco MPO	As the Program progresses to Tier 2 design and environmental review, we request that the Central section preferred alternative routes expand the study area through downtown Waco to the west, between IH-35 and US Highway 84.	This EIS is a service-level EIS that evaluates a reasonable range of corridor alternatives and passenger rail service types. As detailed in Chapter 3, Affected Environment and Environmental Consequences, a service-level analysis only evaluates a preliminary alignment to represent each EIS alternative, based on conceptual engineering that considered and avoided obvious physical or environmental constraints. The service-level analysis reviews generalized effects for a large swath within which the project area may occur and reports both the potentially adverse and beneficial effects without delineating the exact footprint of the alignment. These alignments are not refined to optimize performance, reduce cost, avoid specific properties or individual environmental resources, or for any other such considerations. Preferred alternatives selected at the service level may be developed further at a later date and the above considerations assessed at the project level. The project-level analysis determines specific project impacts while the service-level analysis analyzes and describes the general effects by alternative. The service-level analysis includes best management practices (BMPs), design features, and mitigation strategies that would address effects on a broad, service-level scale. The subsequent project-level analysis would include, but not be limited to, these BMPs, design features, and mitigation strategies.
131	4	Waco MPO	We also request that the existing Waco Intermodal Center at 8th Street and Mary Avenue or a site in the immediate vicinity be considered as the location for the downtown Waco station. Adding a passenger rail connection complements the establishment of a planned Bus Rapid Transit (BRT) line, and could provide an opportunity for future transit-oriented development.	The EIS did not evaluate specific station locations, and no conclusion about the exact location of stations were made as part of this service-level EIS. However, based on ridership data and transit connectivity information developed as part of the alternatives analysis for this EIS, the cities in which stations could potentially be located have been determined. In some cities, station locations have been assumed for the purposes of the EIS (Table 2-9) but a final decision on exact station locations was not made as part of the EIS. Station location, size, and design will be determined during project-level analysis.
132	1		What I am missing is information on the northern section from Oklahoma City to Fort Worth to Dallas is a station stop in Denton County. Denton County is home to over 750,000 residents and the City of Denton is over 125,000. To require Denton County residents to drive over 30 miles to either Fort Worth or Gainesville to use this train is not appropriate with these population numbers. If it is not included in the study, can you advise me how to register my concern and get it considered before the study is finalized.	The EIS did not evaluate specific station locations, and no conclusion about the exact location of stations were made as part of this service-level EIS. However, based on ridership data and transit connectivity information developed as part of the alternatives analysis for this EIS, the cities in which stations could potentially be located have been determined. In some cities, station locations have been assumed for the purposes of the EIS (Table 2-9) but a final decision on exact station locations was not made as part of the EIS. Station location, size, and design will be determined during project-level analysis.
133	1		I am so ecstatic about the possibility of having a rail system and stop coming to Waco! It would be a great relief to have a better transportation system and way of getting around without the long and congested drive on I35!	As detailed in Section 2.3.2.2, Central Section: Dallas and Fort Worth to San Antonio, all the alternatives in this section pass through Waco which is a potential station location. The EIS did not evaluate specific station locations, and no conclusion about the exact location of stations were made as part of this service-level EIS. However, based on ridership data and transit connectivity information developed as part of the alternatives analysis for this EIS, the cities in which stations could potentially be located have been determined. In some cities, station locations have been assumed for the purposes of the EIS (Table 2-9) but a final decision on exact station locations was not made as part of the EIS. Station location, size, and design will be determined during project-level analysis.
134	1	SAMCo	The San Antonio Mobility Coalition, Inc. (SAMCo) supports the continued evaluation of the intercity passenger rail service alternatives for the Texas-Oklahoma Passenger Rail Program as part of a system-side plan to address rising congestion levels along the IH 35 corridor and provide enhanced interconnectivity between DFW, Austin, San Antonio, Laredo and potentially Monterrey, Mexico. We urge the Federal Railroad Administration and Texas Department of Transportation (TxDOT) to select the alignment option "S6 High Speed Build Alternatives" with service to Laredo and potential connection to Monterrey, Mexico.	As detailed in Section 2.3.3, Preferred Alternative, the recommended preferred Alternative S6 High-Speed Rail includes connection between Laredo and Monterrey, Mexico. The Alternative S6 Higher-Speed Rail was also selected as a preferred alternative.
134	2	SAMCo	S6 is the only Southern Section alignment alternative that would provide actual high speed rail service, as opposed to slower options.	As detailed in Section 2.3.3, Preferred Alternative, Alternative S6 High-Speed Rail was selected as a preferred alternative.
134	3	SAMCo	S6 provides the most direct route between San Antonio to Laredo, and to Monterrey, Mexico.	As detailed in Section 2.3.3, Preferred Alternative, the recommended preferred Alternatives S6 Higher-Speed and High-Speed Rail include connection between Laredo and Monterrey, Mexico.
134	4	SAMCo	The route promises ultimately to connect the 7th largest US City (San Antonio) with the 3rd largest metropolitan area in Mexico (Monterrey) with opportunities to expand an already strong economic, trade and tourism relationship.	As detailed in Section 2.3.3, Preferred Alternative, the recommended preferred Alternatives S6 Higher-Speed and High-Speed Rail include connection between Laredo and Monterrey, Mexico.

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134	5	SAMCo	With regard to future location of a high-speed rail station in San Antonio, we look forward to working with TxDOT, the Alamo Area MPO, Bexar County, City of San Antonio and other key partners to help determine an optimal location for such a station in order to maximize connectivity with other transportation modes in the region.	The EIS did not evaluate specific station locations, and no conclusion about the exact location of stations were made as part of this service-level EIS. However, based on ridership data and transit connectivity information developed as part of the alternatives analysis for this EIS, the cities in which stations could potentially be located have been determined. In some cities, station locations have been assumed for the purposes of the EIS (Table 2-9) but a final decision on exact station locations was not made as part of the EIS. Station location, size, and design will be determined during project-level analysis.
136	2	International Expert Rail Concept	We suggest that Texas Dot concentrate the efforts on the first leg to be build to start with…the Austin San-Antonio corridor.	This EIS is a service-level EIS that evaluates a reasonable range of corridor alternatives and passenger rail service types. As detailed in Chapter 3, Affected Environment and Environmental Consequences, a service-level analysis only evaluates a preliminary alignment to represent each EIS alternative, based on conceptual engineering that considered and avoided obvious physical or environmental constraints. The service-level analysis reviews generalized effects for a large swath within which the project area may occur and reports both the potentially adverse and beneficial effects without delineating the exact footprint of the alignment. These alignments are not refined to optimize performance, reduce cost, avoid specific properties or individual environmental resources, or for any other such considerations. Preferred alternatives selected at the service level may be developed further at a later date and the above considerations assessed at the project level. The project-level analysis determines specific project impacts while the service-level analysis analyzes and describes the general effects by alternative. The service-level analysis includes best management practices (BMPs), design features, and mitigation strategies that would address effects on a broad, service-level scale. The subsequent project-level analysis would include, but not be limited to, these BMPs, design features, and mitigation strategies.
137	1		I am writing to voice my support for high speed rail in Texas and a stop in Waco. I hope to see this progressive initiative come to pass.	As detailed in Section 2.3.2.2, Central Section: Dallas and Fort Worth to San Antonio, all the alternatives in this section pass through Waco which is a potential station location. The EIS did not evaluate specific station locations, and no conclusion about the exact location of stations were made as part of this service-level EIS. However, based on ridership data and transit connectivity information developed as part of the alternatives analysis for this EIS, the cities in which stations could potentially be located have been determined. In some cities, station locations have been assumed for the purposes of the EIS (Table 2-9) but a final decision on exact station locations was not made as part of the EIS. Station location, size, and design will be determined during project-level analysis.
138	1	TPWD	Please be aware that a written response to a TPWD recommendation or informational comment received by a state governmental agency may be required by state law. For further guidance, see the Texas Parks and Wildlife Code, Section 12.0011, which can be found online at http://www.statutes.legis.state.tx.us/Docs/PW/htm/PW.l2.htm#l2.00l l.. For tracking purposes, please refer to TPWD project number 36867 in any return correspondence regarding this project.	Based upon direct communication and coordination with TPWD, the responses provided within this matrix and the corresponding revisions/updates to the DEIS serve as a written resonse to TPWD recommendations and informational comments.
138	2	TPWD	TPWD provided scoping comments and recommendations regarding the Texas - Oklahoma Passenger Rail Study to TxDOT on April 22, 2013. These comments and recommendations were included in Table 3-ld: Summary of Public Scoping Comments - Elected Officials and Agencies (State Agencies within Texas). Recommendation: Please review previous TPWD correspondence and consider the recommendations provided, as they remain applicable to the project as proposed but are not repeated in this letter. TPWD also recommends including this letter regarding the DEIS in the appropriate appendix of the Final EIS that will be prepared for this project.	As detailed in Section 8.1.2, State Agency Coordination, the Texas Parks and Wiildlife Department participated in scoping for the EIS in 2013 and submitted a scoping comment letter containing recomendations for consideration in preparation of the EIS. Those recommendations applicable to a service-level EIS were taken into consideration in preparation of the EIS. However, those recommendations applicable to a project-level analysis were not included in the EIS except to cite applicable requirements in the subsequent analysis sections of Chapter 3. The Texas Parks and Wiildlife Department comment letter on the DEIS is included in an appendix to the FEIS.

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138	3	TPWD	Section 3.5.1 (page 3.5-1) of the DEIS states that "there are no specific federal or state laws or regulations that apply to natural ecological systems and wildlife in general." TPWD notes that the Parks and Wildlife Code (PWC) § 12.0011 describes TPWD's regulatory role in investigating fish kills or events that result in the loss of fish and wildlife resources and seeking restitution for those losses. PWC §61.005 defines wildlife resources as all wild animals, wild birds and aquatic animal life, not just game species or threatened/endangered species and prohibits the taking of wildlife resources. Also, PWC §63 includes regulations pertaining to the protection of bats, wolves, and armadillos. A person must have a hunting license to kill any wild animal; not just game species. Recommendation: TPWD recommends removing the above-mentioned statement from the EIS because it does not accurately reflect the regulations regarding protection of wildlife in Texas. TPWD also recommends including applicable PWC regulations in the discussion of "Laws, Regulations, and Orders" in Section 3.5.1 of the DEIS.	Section 3.5.1, Laws, Regulations, and Orders, has been revised to remove the statement "There are no specific federal or state laws or regulations that apply to natural ecological systems and wildlife, in general". This statement has been replaced with "There are no specific federal laws or regulations that apply to natural ecological systems and wildlife. However, there are Texas state laws and regulations that apply. The Parks and Wildlife Code (PWC) Section 12.0011 describes Texas Parks and Wildlife's regulatory role in investigating fish kills or events that result in the loss of fish and wildlife resources and seeking restitution for those losses. PWC Section 61.005 defines wildlife resources as all wild animals, wild birds and aquatic animal life, not just game species or threatened/endangered species and prohibits the taking of wildlife resources. In addition, PWC Section 63 includes regulating pertaining to the protection of bats, wolves, and armadillos."
138	4	TPWD	Section 3.5.2 of the DEIS indicates that National Land Cover Database (NLCD) was used to determine land cover in the project corridor. Appendix H (page 3-2) of the DEIS indicates that the Ecological Mapping Systems of Texas (EMST) was used in the Natural Ecological Systems and Wildlife Technical Study (Appendix G) and corresponding section of the DEIS; however, no reference to the EMST was found in either the DEIS or the technical study. Recommendation: TPWD recommends using the EMST as a tool to further refine land cover and land use in project area. EMST data can be found online at http://tpwd.texas.gov/gis/data/downloads#EMS-T. Please note that a similar dataset is now available for Oklahoma (see http://www.wildlifedepartment.com/facts _ maps/ecoregions.htm). TPWD also recommends reconciling the above-mentioned statements regarding the NLCD and EMST and revising the EIS and associated appendices accordingly.	Additional text has been added to 3.5.2 regarding TXNDD and the utilization of this tool as a preliminary indicator of the magnitude of plant and animal resources within the EIS Study Area. A suite of additional revisions have been incorporated into Section 3.5 to provide applicable updates. Section 3.5.6 of the EIS was clarified to state that EMST would be included as subsequent analysis at the project level.
138	5	TPWD	Section 3.5.3 (page 3.5-4) of the DEIS states that "Based on the 2011 Environmental Occurrences for Federal and State Listed and Tracked Threatened, Endangered, and Rare Species spatial dataset (Michael Baker Jr., Inc. 2012), one sensitive terrestrial plant community, Little Bluestem-Indiangrass series (Schizachyrium scopariumsorghastrum nutans series), is located within the EIS Study Area." Section 3.7.2 of the DEIS states that the 2011 Environmental Occurrences for Federal and State Listed and Tracked Threatened, Endangered, and Rare Species spatial dataset was acquired from the TPWD Texas Natural Diversity Database (TXNDD). Section 3.5.3 (page 3.5-4) of the DEIS also includes the following statement regarding TXNDD occurrences located within the EIS study area: Based on the same dataset [TXNDD], one type of animal assemblage, identified as a "rookery, " is located within the EIS Study Area. Rookeries, or breeding grounds of colony-forming species, are important in an ecosystem as they are home to migratory and resident wading birds and shorebirds. No other natural plant communities or other significant features (e.g., bat caves, prairie dog towns) occur within the EIS Study Area. TPWD notes that data received in 2011 is considered out of date, as the TXNDD is updated continuously based on new, updated and undigitized records. The abovementioned statement is no longer accurate; the current TXNDD dataset shows several occurrences of different natural plant communities located within the DEIS Study Area. Recommendation: TPWD recommends requesting TXNDD data frequently throughout the project planning process, at least every three to six months, as the TXNDD is continuously being updated with new data. TXNDD data can be requested via email at TexasNatural.DiversityDatabase@tpwd.texas.gov. TPWD recommends revising all sections of the EIS that use 2011 TXNDD data with analyses using current data. If the 2011 Environmental Occurrences for Federal and State Listed and Tracked Threatened, Endangered, and Rare Species spatial dataset consists solely of data from the TXNDD, TPWD recommends revising the EIS to cite the TXNDD where it was used.	As detailed in Chapter 3, Affected Environment and Environmental Consequences, description of the presence of resources and the existing environment in the EIS Study Area is based on the most recent data publicly available in 2013/2014 when the environmental impact assessment work commenced. At that time, the 2011 dataset acquired from the TXNDD was the most recent data available and appropriate for use in this servce-level analysis. For this service level EIS, the TXNDD data will not be updated; however, updates to the most current TXNDD data will be included in the project-level analysis, and Section 3.5.6 has been revised to include this subsequent analysis.

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138	6	TPWD	TPWD notes that TXNDD records used to represent occurrences (rookeries, plant communities, rare and protected species) should not be interpreted as representing exact acreages of that community or potential habitat for rare and protected species. In the TXNDD, every occurrence is represented geographically as a polygon. This polygon is a combination of the geographic location of the reported observation and the locational uncertainty of the observation for all elements of the same type within scientifically-determined separation distances. The polygons include an error buffer (locational uncertainty) to the original point location based on the precision of that record. A TXNDD Shapefile Data Interpretation and Use document is attached for your reference. Recommendation: TPWD recommends revising all tables and text in the EIS and associated appendices accordingly using the correct method of interpreting GIS data in the database. Please review the attached TXNDD Shapefile Data Interpretation and Use document for a better understanding of how the data should be used and interpreted. For questions on how to correctly interpret TXNDD data for the purposes of project planning, please contact the database management staff at TexasNatural.DiversityDatabase@tpwd.texas.gov.	The utilization of the NLCD in support of the DEIS has been supplemented with an additional dataset from the TPWD Rare, Threatened and Endangered Species of Texas by County. This Interactive Mapping Tool/Data Warehouse included a county-by-county listing of sensitive plants, wildlife and habitat and previous references to exact acreages of communities or potential habitat for rare and protected species have been removed. The FEIS/Errata includes updates to Section 3.7, Threatened and Endangered Species consistent and commensurate with this new dataset, and text revisions have been incorporated, along with a new Table 3.7-6, which includes listings for Sensitive Plants and Wildlife Species with the Potential to Occur within the EIS Study Area. Corresponding updates/revisions to the effect determinations have also been incorporated, including shifts from previous negligible to moderate effects. The above described updates/revisions have been provided in the FEIS/Errata and are incorporated by reference into the DEIS.
138	7	TPWD	Section 3.5.2 (page 3.5-2) of the DEIS states that "Available information, such as land use coverage, wildlife corridors and assemblages, and sensitive plant communities, was used to assess the potential magnitude or intensity of the effects." Page 3.5.5 of the DEIS states "Based on the spatial datasets acquired from TXNDD and Oklahoma Department of Wildlife Conservation ... approximately 85 acres of animal assemblage area (rookeries) occur within the EIS Study Area for Alternative N4A. No other wildlife corridors and assemblages or sensitive plant communities were identified within the EIS Study Area." The DEIS does not provide clear information regarding the data source used to assess the presence of wildlife corridors within the DEIS Study Area. TPWD notes that wildlife corridors are not tracked or mapped in the TXNDD, therefore absence of wildlife corridors in the TXNDD does not indicate that this habitat type was not present in the DEIS Study Area. Recommendation: As stated above, TPWD recommends revising the EIS and associated appendices accordingly using the correct method of interpreting GIS data in the database. Please review the attached TXNDD Shapefile Data Interpretation and Use document for a better understanding of how the data should be used and interpreted. TPWD also recommends removing any reference to the presence, absence, or impacts to wildlife corridors from the analysis in the EIS if the TXNDD data was used to make these determinations, or cite an appropriate dataset that can be used to delineate wildlife travel corridors.	As reflected above, the utilization of the NLCD in support of the DEIS has been supplemented with an additional dataset from the TPWD Rare, Threatened and Endangered Species of Texas by County. This Interactive Mapping Tool/Data Warehouse included a county-by-county listing of sensitive plants, wildlife and habitat.
138	8	TPWD	TPWD notes that the proposed project crosses two designated mussel sanctuaries (San Marcos River and Rio Grande River) per Texas Administrative Code (TAC) Title 31 Section 51.157. These mussel sanctuaries and the associated TAC section are not mentioned in Section 3.7.1.2 of the DEIS. Mussel sanctuaries protect populations of both rare and commercially valuable species from harvest. Designation of the sanctuaries is based on the most current scientific survey data available about the occurrence of mussel populations. Although this designation protects mussels from harvest only, designated waterways are selected because they support populations of rare and endemic mussel species, or are important for maintaining, repopulating, or allowing recovery of mussels in watersheds where they have been depleted. These sanctuaries manage mussels by providing for repopulation after harvest or other use, or loss due to environmental conditions. Recommendation: TPWD recommends including a discussion of designated mussel sanctuaries and the associated applicable state codes in Section 3. 7 .1.2 of the EIS.	Section 3.7, Threatened and Endangered Species; Section 3.7.1 Regulatory Environment; and Section 3.7.1.2 State has been updated to acknowledge the corresponding state regulation regarding mussels. The following update has been incorporated: "State regulations prohibit the take, possession, sale or offering for sale of any species of mussel listed in §65.175 of this title or §65.176 of this title except as provided by Parks and Wildlife Code, Chapter 67 or 31 TAC Chapter 65, Subchapter G, as outlined in TAC Title 31 Section 51.157. "

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138	9	TPWD	Section 3.7.2 (page 3.7-4) of the DEIS includes the following statement: Federally and state-listed species in Texas were identified through a review of the 2011 Environmental Occurrences for Federal and State Listed and Tracked Threatened, Endangered, and Rare Species spatial dataset, acquired from the TPWD Texas Natural Diversity Database (TXNDD) (Michael Baker Jr., Inc. 2012). Oklahoma federally and state-listed species were identified through a review of the county-by-county list of endangered and threatened species published by ODWC. For the service-level analysis of threatened and endangered plant and animal species, only TXNDD data and the county-by county list were used. TPWD notes that the TXNDD is intended to assist users in avoiding harm to rare species or significant ecological features. Given the small proportion of public versus private land in Texas, the TXNDD does not include a representative inventory of rare resources in the state. Absence of information in the database does not imply that a species is absent from that area. Although it is based on the best data available to TPWD regarding rare species, the data from the TXNDD do not provide a definitive statement as to the presence, absence or condition of special species, natural communities, or other significant features within your project area. These data are not inclusive and cannot be used as presence/absence data. They represent species that could potentially be in your project area. The DEIS reliance on the TXNDD to determine which species have the potential to inhabit the study area as well as the potential impacts that the proposed project may have on these species is not an appropriate use of this dataset. Recommendation: As done for Oklahoma, TPWD recommends reviewing the TPWD county by county lists to determine which species (rare and protected) have the potential to occur within the DEIS Study Area. The TXNDD can be used to supplement an evaluation of the county lists, but should not be the primary source.	As reflected above, the utilization of the NLCD in support of the DEIS has been supplemented with an additional dataset from the TPWD Rare, Threatened and Endangered Species of Texas by County. This Interactive Mapping Tool/Data Warehouse included a county-by-county listing of sensitive plants, wildlife and habitat. The FEIS/Errata includes updates to Section 3.7, Threatened and Endangered Species consistent and commensurate with this new dataset and text revisions have been incorporated, along with a new Table 3.7-6, which includes listings for Sensitive Plants and Wildlife Species with the Potential to Occur within the EIS Study Area. Corresponding updates/revisions to the effect determinations have also been incorporated, including shifts from previous negligible to moderate effects. The above described updates/revisions have been provided in the FEIS/Errata and are incorporated by reference into the DEIS.
138	10	TPWD	Section 3.7.2 (page 3.7-5) includes the following statement regarding critical habitat: Potential effects of each alternative were determined using acreages of critical habitat within the EIS Study Area. Data used for analysis were obtained from the TXNDD and the Oklahoma Department of Transportation, High- Speed Intercity Passenger Rail 1-35 Corridor, Oklahoma, Data Collection Report (Meshek & Associates 2013). TPWD notes that U.S. Fish and Wildlife Service (USFWS) designated critical habitat is not tracked or mapped in the TXNDD. Recommendation: TPWD recommends obtaining USFWS designated critical habitat online at https://ecos.fws.gov/ecp/report/table/critical-habitat.html. TPWD recommends incorporating these data into the DEIS and revising the document and associated appendices accordingly.	Critical habitat designations, according to Section 4 of the Endangered Species Act have been defined in Section 3.7.1.1; however, the previously provided discussions on critical habitat have been removed since USFWS source data for those designations was not utilized. The designated critical habitat data and corresponding designation will be included in project-level analyses to be conducted at a future date. Updates to the subsequent analysis discussion within revised Section 3.7 Threatened and Endangered Species have been incorporated.

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138	11	TPWD	Section 3. 7 .3 (page 3. 7-5) states "Table 3. 7-1 lists the 18 sensitive plant species that potentially occur within the EIS Study Area and describes each species general habitat type and requirements." TPWD notes that Table 3.7-1 is titled "Sensitive Plant Species within the EIS Study Area". Section 3.7.3 (page 3.7-8) states "Table 3.7-2 lists the 22 sensitive wildlife species and their general habitat requirements that potentially occur within the EIS Study Area based on the spatial dataset acquired from the TXNDD." TPWD notes that Table 3.7-2 is titled "Sensitive Wildlife Species within the EIS Study Area". Recommendation: TPWD recommends revising the titles of Table 3.7-1 and Table 3.7-2 to indicate that these sensitive plant and wildlife species have the potential to occur within the EIS Study Area. As previously mentioned, the sensitive plant and wildlife species that the DEIS concludes have the potential to occur within the EIS Study Area were determined using the TXNDD. The TXNDD represents known occurrences of species and communities that have occurred at one time, but should not be used as the only method to determine which species have the potential to occur within the EIS Study Area. Recommendation: As stated above, TPWD recommends reviewing the TPWD county by county lists to determine which species (rare and protected) have the potential to occur within the EIS Study Area. TPWD recommends revising Table 3.7-1 and Table 3.7-2 to include all of the species listed on TPWD's county lists as potentially occurring. TPWD also recommends revising the remainder of the EIS (including applicable appendices) that use the information from these tables in the analysis to determine potential impacts to species. Because the DEIS used TXNDD data as its sole source in determining which species have the potential to occur, numerous state-listed and rare species that occur and have the potential to occur within the EIS Study Area are not identified in the DEIS as potentially occurring. TPWD believes that it is important that the service-level EIS at least identify all species that potentially occur in the EIS Study Area based on TPWD county lists to inform the public and decision-makers of the resources that could be affected by the project if suitable habitat is encountered during project-level surveys.	The titles of Tables 3.7-1 and 3.7-2 have been revised to indicate that species have the "potential" to occur in the EIS Study Area. For example, "Table 3.7-1: Sensitive Plant Species within the EIS Study Area" is revised to "Table 3.7-1: Sensitive Plant Species with Potential to Occur within the EIS Study Area". Table 3.7-3 and 3.7-4 have been updated and the acreage listings removed.
138	12	TPWD	Section 3.7.3.3 of the DEIS suggests that although rare plant occurrences intersect the EIS study area in the southern section, since portions of the southern section would be constructed in abandoned rail ROW (i.e., previously disturbed areas) there is no potential for rare plants to occur in the study area. TPWD notes that some rare plants do well in maintained ROW as the maintenance mimics necessary disturbance required by the plant. Some plants may be pioneer species that do well in disturbed areas. Or alternatively, some abandoned railroad ROWs, particularly ones that are fenced, can contain exceptional plant diversity if grazing pressure has been removed. Recommendation: TPWD recommends revising the EIS and associated appendices where the above-mentioned conclusion is made. TPWD recommends replacing that statement with information indicating that several species of rare plants do well in disturbed ROWs.	Section 3.7.3.3.1, Senstive Plant Species has been revised to include a statement noting that there are some species of rare plants that persist and potentially expand within disturbed ROWs.
138	13	TPWD	"Footnote a" in Table 3.7-4 (page 3.7-23) of the DEIS states that "TxDOT staff also noted that black bear and ocelot are found in the area. These species were not included in the resource agency databases and are, therefore, not referenced in this document." TPWD notes that in order for the EIS to be as comprehensive as possible and function as a valuable tool in assessing potential impacts, even at this service level EIS, all relevant information should be included and evaluated. Excluding species from evaluation because the TXNDD polygons do not intersect the EIS Study Area, despite reports of those species in the area from other sources, is another example of TXNDD misinterpretation and misuse. Recommendation: TPWD recommends rev1smg the EIS and associated appendices to include the black bear and ocelot, as well as any other rare and protected species that has been reported in the EIS Study Area, in the analysis of potential impacts to rare and protected wildlife species. As previously mentioned, the TXNDD should be used as a planning tool only and does not include a representative inventory of rare resources in the state.	As reflected above, the utilization of the NLCD in support of the DEIS has been supplemented with an additional dataset from the TPWD Rare, Threatened and Endangered Species of Texas by County. This Interactive Mapping Tool/Data Warehouse included a county-by-county listing of sensitive plants, wildlife, and habitat, including the black bear and ocelot. The FEIS/Errata includes updates to Section 3.7, Threatened and Endangered Species consistent and commensurate with this new dataset and text revisions have been incorporated, along with a new Table 3.7-6, which includes listings for Sensitive Plants and Wildlife Species with the Potential to Occur within the EIS Study Area. The above described updates/revisions have been provided in the FEIS/Errata and are incorporated by reference into the DEIS.

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138	14	TPWD	Section 3.7.4 (page 3.7-27) of the DEIS states that "Operations effects on wildlife for conventional and higher-speed rail would include making wildlife movement vulnerable to an increased risk of strikes from the additional rail traffic along the routes." TPWD notes that operational impacts of railroads are not limited to strikes. The tracks themselves function as barriers to movement for small wildlife, particularly amphibians and reptiles. Studies have demonstrated how fatal they can be to tortoises that enter the inter-track space at at-grade crossings and then follow the track until they either die of dehydration, or predation, or are struck by trains. Recommendation: TPWD recommends revising the EIS and associated appendices to include a discussion of the additional operational impacts of railroads on wildlife mentioned above.	This service-level EIS analyzes and describes general effects by alternative. Section 3.7.4, Environmental Consequences discusses the potential for the alternatives to increase the risk of wildlfe strikes and create a barrier to the movement of wildlife. Future project-level analysis will determine specific project impacts, including the potential for impacts on specific species of wildlife crossing rail tracks. Assessment of the potential for wildlife strikes and the rail tracks creating a barrier to the movement of specific species of wildlife requires project-level detail including the exact footprint of the alignment relative to areas of wildlife habitat, the design of the alignment, and inclusion of avoidance and minimization measures.
138	15	TPWD	Section 3.7.4 (page 3.7-27) of the DEIS states that "High-speed rail would be completely fenced; therefore, the risk of strikes would be lower for this service type. Additionally, construction of new tracks on rail bed elevated above the floodplain could create barriers to wildlife movement. High-speed rail would be fully grade separated; therefore, more passages for wildlife would likely be included." Recommendation: TPWD notes that completely fencing the high speed rail would limit movement of wildlife as well as livestock. Mitigation strategies in Section 3.7.5 include constructing at least one crossing within an individual's home range. Many state-listed species that would benefit from wildlife crossings (e.g., Texas horned lizard, Texas tortoise, reticulate collared lizard) have home ranges of 5 to 10 acres. Therefore, TPWD recommends, throughout much of south Texas, incorporating appropriately sized wildlife crossings every 100 to 200 yards.	Section 3.7.4.1, Overview, states that "High-speed rail would be completely fenced; therefore, the risk of strikes would be lower for this service type. Additionally, construction of new tracks on rail bed elevated above the floodplain could create barriers to wildlife movement ". This sentence been revised to state that "High-speed rail would be completely fenced; therefore, the risk of strikes would be lower for this service type. However, the construction of new tracks on rail bed elevated above the floodplain and construction of fenced alignments could create barriers to wildlife movement". The project-level analysis will determine specific impacts associated with the project potentially creating barriers to the movement of specific species of wildlife and will consider mitigation options such as wildlife crossings in the design as necessary.
138	16	TPWD	Section 5.2 (page 5-2) of the DEIS states that in the Central Section the project "would have a substantial adverse effect, even with mitigation, on state-listed and federally listed sensitive wildlife species." Page 5-4 of the DEIS states that in the Southern Section the project "would affect a large amount of land and would have a substantial adverse effect, even with mitigation, on federally-listed and sensitive plant and wildlife species." Unavoidable adverse impacts to state-listed species were not mentioned for the Southern Section, unavoidable adverse impacts to sensitive plant species were not mentioned for the Central Section, and no unavoidable adverse impacts to threatened and endangered plant or wildlife species were included for the Northern Section. Several sections within the DEIS as well as associated appendices claim that the proposed project would have negligible effects on wildlife corridors and assemblages, sensitive plant communities, and threatened and endangered wildlife species. The DEIS does not explain how these conclusions can be drawn without on-the-ground surveys or evaluating the habitat requirements for all of the species on the TPWD county lists. Recommendation: TPWD recommends removing the above-mentioned statements from the EIS and associated appendices or present data in the EIS to explain how they were drawn. If removing these statements is not feasible, the EIS should indicate that these effects are assumed and cannot be determined until on-the ground surveys are conducted. If the conclusions discussed above were made based on the absence of TXNDD data, please refer to previous recommendations regarding appropriate use and interpretation of those data.	As reflected above, the utilization of the NLCD in support of the DEIS has been supplemented with an additional dataset from the TPWD Rare, Threatened and Endangered Species of Texas by County. This Interactive Mapping Tool/Data Warehouse included a county-by-county listing of sensitive plants, wildlife and habitat and previous references to exact acreages of communities or potential habitat for rare and protected speciest have been removed. The FEIS/Errata includes updates to Section 3.7, Threatened and Endangered Species consistent and commensurate with this new dataset and text revisions have been incorporated, along with a new Table 3.7-6, which includes listings for Sensitive Plants and Wildlife Species with the Potential to Occur within the EIS Study Area. Corresponding updates/revisions to the effect determinations have also been incorporated, including shifts from previous negligible to moderate effects. Additionally, and as presented in the referenced Chapter 5, Unavoidable Adverse Effects, the statements that portions of the Central Section alternatives would have a substantial adverse effect, even with mitigation, on state-listed and federally listed sensitive wildlife species is consistent with the corresponding statements made in Section 3.7.4.4, Central Section: Dallas and Fort Worth to San Antonio and Section 3.7.4.5, Southern Section: San Antonio to South Texas. Those sections acknowledge the potential for substantial effects related to construction and that the results would have a noticeable, inevitable effect on these resources.
138	17	TPWD	The narrative of Section 3.17.2 (page 3.17-2) of the DEIS regarding recreational areas and opportunities indicates that TPWD websites were accessed to help identify TPWD parks and wildlife management areas (WMAs) for this chapter. However, the references listed for Section 3 .17 in Section 11 (References) on page 11-18 do not include any TPWD citations. Recommendation: TPWD recommends revising the EIS to either remove TPWD websites from the list of online resources used on page 3.17-2, or include the applicable TPWD citations in the references section for Chapter 3 .17 on page 11-18. TPWD also recommends accessing the Land and Water Resources Conservation and Recreation Plan (L WRCRP) 2012 Statewide Inventory found at http://tpwd.texas.gov/gis/apps/lwrcrp// to aid in the review of local, state and federal parks and recreation areas in Texas. Please note that the 2012 L WRCRP inventory may not include a comprehensive list of local, county, state and federal properties and should be used in conjunction with other sources for determining conservation and recreation properties in the project area such as the U.S. Geological Survey Protected Areas Database of the U.S.	The Land and Water Resources Conservation and Recreation Plan (LWRCRP) 2012 Statewide Inventory (or most recent version) will be used to aid in the review of local, state and federal parks and recreation areas in Texas during the subsequent project-level analysis. The limitations of the LWRCRP inventory are understood. The inventory may not include a comprehensive list of local, county, state and federal properties and should be used in conjunction with other sources for determining conservation and recreation properties in the project area such as the U.S. Geological Survey Protected Areas Database of the U.S. Chapter 11, References, has also been updated to include the applicable TPWD references noted in the comment: Land and Water Resources Conservation and Recreation Plan (L WRCRP) 2012 Statewide Inventory found at http://tpwd.texas.gov/gis/apps/lwrcrp//. Section 3.17 reference on page 3.17-2 for Texas Parks and Wildlife Department websites for parks and wildlife management areas has been deleted.

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138	18	TPWD	Section 3.17 correctly identifies Ray Roberts WMA as occurring along Corridor N4A. TPWD notes that the US. Army Corps of Engineers property crossed by Corridor C4C at Granger Lake is managed under a long-term lease with TPWD as a public hunting area. The DEIS identifies that Corridor S6 would bisect the Chaparral WMA in Dimmit County but concludes negligible effects on recreational resources along Corridor S6. This conclusion is based on a statement in the DEIS indicating that impacts to the WMA may be avoided at the project level because there are large areas around the WMA where the alignment could be routed to minimize-potential impacts. The reason for concluding that there would be negligible impacts on recreational resources for Alternative S6 at the service level is unclear to TPWD. As stated above, impacts on the Chaparral WMA may be avoided at the project level, but at the service level Alternative S6 is shown bisecting the Chaparral WMA. Therefore, it appears to be premature to conclude negligible impacts to recreation areas until the alignments have been determined at the project level. Recommendation: TPWD recommends that the EIS identify significant impacts to recreational resources along Corridor S6 due to the fact that the corridor is depicted as crossing the WMA, which would greatly disrupt the management and public use of the property. TPWD does not agree with the conclusion that impacts would be negligible based on the alignment presented in the DEIS. In order for the EIS to indicate that impacts would be avoided by routing around the WMA, the EIS should present a corridor alternative that routes around the WMA. Recommendation: TPWD strongly discourages project alternatives that cross TPWD-owned or managed properties unless that alternative creates the least amount of adverse impacts to the state's fish and wildlife resources and meets the requirement of Parks and Wildlife Code Chapter 26 and Section 4(f) of the USDOT Act. TPWD recommends avoiding these areas and routing around TPWD-owned or managed properties. If the proposed project could result in impacts to a TPWD WMA, close coordination would be needed with Dennis Gissell at (512) 389-4407. If a proposed project has the potential to impact a State Park, close coordination would be needed with David Riskind at (512) 389-4897.	As detailed in Section 3.17.6, Susequent Analysis, during project-level analysis further research will be conducted to determine the extent of potential impacts to recreational areas and to identify resource and impact-specific mitigation strategies. Subsequent analysis would also involve consultation with the affected federal, state, and local jurisdictions, as well as owners/operators of identified resources. The DEIS has been updated to acknowledge the need for a more detailed project-level evaluation to determine if additional recreational properties would be affected, including potential avoidance strategies such as alignment modifications or rerouting. A corresponding update to Chapter 4, Section 4(f) and Section 6(f) Resources, consistent with this update has also been incorporated into the DEIS.
138	19	TPWD	Chapter 4.0, regarding Section 4(f) and Section 6(f) resources, identifies state parks that occur within the corridor alternatives, but fails to identify TPWD WMAs as Section 4(f) resources. As previously mentioned, TPWD's review of the project corridor alternatives indicate that Ray Roberts WMA and Chaparral WMA occur within the corridor alternatives. Recommendation: Ray Roberts WMA and Chaparral WMA should be identified and assessed in Chapter 4.0 as Section 4(f) resources. As discussed above TPWD discourages project alternatives that cross TPWD-owned or managed properties and requires close coordination to identify avoidance and mitigation requirements.	Section 4.8, Susequent Analysis, was reevised to clarify that subsequent Section 4(f) and Section 6(f) evaluations for specific projects will be completed during project-level processes when sufficient design and operational information about improvements are developed to determine Section 4(f) use. Subsequent analysis would involve conducting a more detailed evaluation to determine if additional Section 4(f) or 6(f) properties are located in the study area (that were not identified at the service-level) and continued coordination with officials with jurisdiction.
140	1	NCTCOG	The North Central Texas Council of Governments (NCTCOG) supports implementing a high-speed passenger rail service within and approaching the Dallas-Fort Worth region.	Comment noted. As detailed in Section 2.3.3, Preferred Alternative, the recommended preferred alternatives that serve Dallas and Fort Worth include Alternative N4A Conventional and all the high-speed rail alternatives considered in the Central Section. The EIS analysis recommends that service to the Dallas-Fort Worth region from the north would be conventional speed rail service as described in Alternative N4A.
140	2	NCTCOG	NCTCOG encourages the formulation of a recommended alternative to be flexible regarding connection to planned high-speed rail service from Dallas to Houston and planned high-speed rail service from Fort Worth to Dallas.	Details regarding how preferred alternatives might connect and interact with other potential service providers would be analyzed during project-level analysis after completion of the service-level EIS. The service level preferred alternatives have the flexibility to incorporate project level options for connections with other passenger rail services.
140	3	NCTCOG	In general, the preferred alignment alternatives recommended for additional analysis are not consistent with the adopted Mobility 2040: The Metropolitan Transportation Plan for North Central Texas and are not consistent with the "Three Station" and "One Seat Ride" policies adopted by the Regional Transportation Council for high-speed rail in the Dallas-Fort Worth region.	Details regarding interactions of the Program EIS prefered alternatives with other potential passenger rail service providers would be considered during project-level studies at a future date. The Program EIS evaluates routes, station cities, and service levels, but does not preclude specific service plans that would be evaluated at the project level.

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140	5	NCTCOG	The recommended alternatives included in the DEIS are not consistent with Mobility 2040. The document needs to be revised to reflect and acknowledge the current policies and high-speed rail efforts in the Dallas-Fort Worth region. Mobility 2040 [the approved regional metropolitan transportation plan (MTP)] includes two policies regarding high-speed rail projects within the region. The MTP states high-speed rail should incorporate a "one seat ride" concept of interoperability within the region, and three stations are identified in downtown Fort Worth, Arlington and downtown Dallas. Alignments approved in the plan include publicly-funded service to Fort Worth from the south and from Fort Worth to Dallas eastward along IH-30 to Arlington, north generally along SH 360 to the Trinity Railway Express (TRE) corridor and eastward to Dallas along the TRE corridor. The high-speed rail alignment from the south to Dallas is privately funded. The DEIS and Tier 1 study process does not adequately recognize the interdependence and need for coordinating with the other high-speed rail environmental documents that are currently being developed. The document appears to be in conflict with the planning and environmental efforts underway for the DFW High-Speed Rail Core Express Service between Dallas and Fort Worth. High-speed rail in the Dallas-Fort Worth region has been a topic of discussion at many NCTCOG policy and committee meetings. Attachment 1 is a listing of meetings held at NCTCOG since February 2014. There is no mention of the Core Express Service DEIS, Mobility 2040, or NCTCOG in the section titled "Related Planning Activities." Attachment 2 includes relevant pages from Mobility 2040.	The North Central Texas Council of Governments (NCTCOG) coordinates with cities, counties and transportation partners to plan road, transit, bicycle and pedestrian transportation improvements for North Texas. Mobility 2035 as updated June 2013 was the most recent Mobility document available from NCTCOG at the time conceptual engineering and alternatives analysis was being completed and the advance Administrative DEIS was being generated. Mobility 2040 was adopted by the Regional Transportation Council in March 2016, after work to prepare the DEIS was well underway. At the service level, the proposed alternatives and corresponding alignments should be consistent with the objectives defined with the Mobility 2040 document. Data from the most current Mobility report at the time would be considered during project-level analysis at a future date. The alternatives developed at the service level would not conflict with alternatives NCTCOG may consider at the project level.
140	6	NCTCOG	Please provide more explanation on the cost-efficient investment objective. What is the source of the operating cost to revenue percentages for the different speeds? Was this built into the CONNECT model or is this set by FRA or is it industry averages? What is the planning horizon?	The FRA CONNECT Model was used during the alternative screening phase of the Program. During the EIS-Phase, the Program study team conducted a targeted Corridor Level Demand Model for ridership/revenue. This Corridor Level Demand Model involved a targeted quantitative assessment, beyond the CONNECT model in level of detail and accuracy of results in support of the DEIS. This effort and the results were the source data and also provided a higher level of results in support of the alternative assessment determinations.
140	7	NCTCOG	Please add Regional Transportation Council (RTC) policies pertaining to high-speed rail.	NCTCOG Mobility 2035 includes, by reference, the Regional Transportation Council policies pertaining to High-Speed Rail within the Dallas-Ft Worth region. Citation to NCTCOG Mobility 2035 is included in Chapter 11, References.
140	8	NCTCOG	The word "capitol" should be changed to "capital." Populations for Dallas and Fort Worth should be updated to 2015 estimates (best available information) and should include the entire Dallas-Fort Worth region. Data should be revised to year 2015 data (best available information).	The word change is noted in the FEIS Errata Sheet. The population information provided in the EIS was the most current information available at the time of the preparation of the EIS. While updating the information as suggested would provide more precise current information, it is not expected to change the underlying need for the project or the alternatives that were evaluated and identified as preferred alternatives. Future project level analysis would be expected to include updated population information available at that time.
140	9	NCTCOG	NCTCOG has indicated a preference for an alignment within or along the IH-30 corridor from IH-35W to SH 360 and supports utilizing the existing IH-30 highway right-of-way to the maximum extent possible. However, NCTCOG did not reserve space on the IH-30 corridor for an elevated high-speed rail alignment. Additionally, the Fort Worth to Dallas high-speed rail alignment should be changed to reflect the alignment options in the Core Express Service DEIS.	The alternatives analysis required for the EIS was completed (November 2014), and the incorproation of those results into the EIS was predominantly completed prior to the start of the Core Express Tier 2 study. Details regarding interactions of the Program EIS prefered alternatives with other potential passenger rail service providers would be considered during project-level analysis at a future date. The preferred alternatives do not preclude project level refinement such as alignments, station locations, and service details.
140	10	NCTCOG	Screening criteria should include criteria indicating consistency with approved regional planning documents such as Mobility 2040.	The North Central Texas Council of Governments (NCTCOG) coordinates with cities, counties and transportation partners to plan road, transit, bicycle and pedestrian transportation improvements for North Texas. Mobility 2035 as updated June 2013 was the most recent Mobility document available from NCTCOG at the time conceptual engineering and alternatives analysis was being completed and the advance Administrative DEIS was being generated. Mobility 2040 was adopted by the Regional Transportation Council in March 2016, after work to prepare the DEIS was well underway. At the service level, the proposed alternatives and corresponding alignments should be consistent with the objectives defined with the Mobility 2040 document. Data from the most current Mobility report at the time would be considered during project-level analysis at a future date. The alternatives developed at the service level would not conflict with alternatives NCTCOG may consider at the project level.

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140	11	NCTCOG	Alternative C4C is not listed.	Table 2-3: Route Alternatives Analysis Recommendations should have included Alternative C4C (Higher-Speed Rail and High-Speed Rail) and its omission was an error. The route alternative analysis recommendation for Alternative C4C (Higher-Speed Rail and High-Speed Rail) was to 'carry forward'. This alternative was carried forward for analysis in the DEIS.
140	12	NCTCOG	The data should be changed to reflect the data in Mobility 2040. These tables misrepresent the roadway projects in the NCTCOG region by showing "New HOV" projects. There are no new high occupancy vehicle (HOV) lanes proposed in the Dallas-Fort Worth region. Managed lanes are not the same as HOV lanes. The Core Express Service DEIS should be discussed in this section. Information should be revised to include Mobility 2040, which was adopted in March 2016. Information shows the proposed passenger rail lines only. This information should be revised to include the adopted Mobility 2040 Plan. Additionally, the existing commuter (TRE, A-Train) and light rail lines (90 miles) are not shown.	The North Central Texas Council of Governments (NCTCOG) coordinates with cities, counties and transportation partners to plan road, transit, bicycle and pedestrian transportation improvements for North Texas. Mobility 2035 as updated June 2013 was the most recent Mobility document available from NCTCOG at the time conceptual engineering and alternatives analysis was being completed and the advance Administrative DEIS was being generated. Mobility 2040 was adopted by the Regional Transportation Council in March 2016, after work to prepare the DEIS was well underway. At the service level, the proposed alternatives and corresponding alignments should be consistent with the objectives defined with the Mobility 2040 document. Data from the most current Mobility report at the time would be considered during project-level analysis at a future date. The alternatives developed at the service level would not conflict with alternatives NCTCOG may consider at the project level. Chapter 2, Tables 2-4 and 2-6 headers will be changed from "New HOV" to "New HOV or Managed Lanes."
140	13	NCTCOG	Alternative C4A is not consistent with Mobility 2040. Alternative C4B is not consistent with Mobility 2040. Alternative C4C is not consistent with Mobility 2040.	The North Central Texas Council of Governments (NCTCOG) coordinates with cities, counties and transportation partners to plan road, transit, bicycle and pedestrian transportation improvements for North Texas. Mobility 2035 as updated June 2013 was the most recent Mobility document available from NCTCOG at the time conceptual engineering and alternatives analysis was being completed and the advance Administrative DEIS was being generated. Mobility 2040 was adopted by the Regional Transportation Council in March 2016, after work to prepare the DEIS was well underway. At the service level, the proposed alternatives and corresponding alignments should be consistent with the objectives defined with the Mobility 2040 document. Data from the most current Mobility report at the time would be considered during project-level analysis at a future date. The alternatives developed at the service level would not conflict with alternatives NCTCOG may consider at the project level.
140	14	NCTCOG	Where can the referenced document "Texas-Oklahoma Passenger Rails Study EIS-Phase Business and Financial Plan" be found? Operating cost to revenue is a key factor in the selection of the alternates. Assumptions on revenue are not found in the main text.	This material was incorporated into a combined evaluation documentation process including a joint analytical effort between project demand/cost modeling and environmental analysis. This quantitative data set was also used as a basis for technical assessment across multiple disciplines in the DEIS, including Section 3.1, Air Quality and Section 3.20, Travel Demand and Transportation. The corresponding assumptions that were part of this assessment were an integral element of the DEIS. The financial analysis provided in the *Business and Financial Plan* is included in the Service Development Plan that has been prepared concurrently with the EIS and is separately available at the TxDOT website.
140	15	NCTCOG	Preferred alternatives are not consistent with Mobility 2040.	The North Central Texas Council of Governments (NCTCOG) coordinates with cities, counties and transportation partners to plan road, transit, bicycle and pedestrian transportation improvements for North Texas. Mobility 2035 as updated June 2013 was the most recent Mobility document available from NCTCOG at the time conceptual engineering and alternatives analysis was being completed and the advance Administrative DEIS was being generated. Mobility 2040 was adopted by the Regional Transportation Council in March 2016, after work to prepare the DEIS was well underway. At the service level, the proposed alternatives and corresponding alignments should be consistent with the objectives defined with the Mobility 2040 document. Data from the most current Mobility report at the time would be considered during project-level analysis at a future date. The alternatives developed at the service level would not conflict with alternatives NCTCOG may consider at the project level.

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140	16	NCTCOG	Dallas-Fort Worth is listed in the Central Section. However, the text discusses Dallas-Fort Worth in the northern section and impacts in the central section. Be consistent with which section to discuss Dallas-Fort Worth and change as appropriate throughout the chapter/document.	As detailed in Section 2.3.2.1 Northern Section:Oklahoma City to Dallas and Fort Worth and Section 2.3.2.2 Central Section: Dallas and Fort Worth to San Antonio of the EIS, route alternatives that extend from Fort Worth to Dallas occur in both the Northern and Southern Sections. Both the Northern and Central Section study alignment is located within the Dallas-Fort Worth air basin. It is incorrect for Table 3.1.2 General Climate and Existing Air Quality Conditions not to have included this air basin in the first row of the table for the Northern Section. Nevertheless, this air basin is discussed in the affected environment Section 3.1.3.2 Northern Section: Oklahoma City to Dallas and Fort Worth and considered in the analysis of environmental consequences in both the Northern and Southern Sections.
140	17	NCTCOG	Remove "- Arlington Basin" from the Air Basin Region. TCEQ/EPA does not refer to the Dallas-Fort Worth region as this, only as "Dallas-Fort Worth."	It is incorrect for Table 3.1.2 General Climate and Existing Air Quality Conditions to refer to the Dallas-Fort Worth air basin as the "Dallas-Fort Worth - Arlington Basin". Wherever the EIS refers to the "Dallas-Fort Worth - Arlington Basin" this should be read as the "Dallas-Fort Worth air basin".
140	18	NCTCOG	Add the following counties to the list of the Dallas-Fort Worth air quality counties: Kaufman, Parker, Navarro, Rockwall, and Wise. Additionally Collin County is misspelled, removed the "s" at the end.	Table 3.1.2 General Climate and Existing Air Quality Conditions should have included Kaufman, Parker, Navarro, Rockwall, and Wise in the list of counties that occur in the Dallas-Fort Worth air basin. In addition "Collins" County is missspelled and should be "Collin" County.
140	19	NCTCOG	Add the following attainment status: Dallas, Ellis, Kaufman, and Navarro counties: Governor's Recommendation: Attainment, sulfur dioxide (2010 standard). This is not classified as the remainder "Unclassifiable/Attainment" status category it was placed in.	The attainment status presented in Table 3.1-2 of the Draft EIS was based on status that has been officially approved by the EPA and published in the Federal Register at the time the EIS was prepared. On September 8, 2015, TCEQ submitted revised designation recommendations and supporting information to the EPA and recommended attainment designation for Dallas, El Paso, Ellis, Galveston, Gregg, Harris, Jefferson, Kaufman, McLennan, Navarro, and Nueces Counties. However, at the time of preparing this Final EIS, the status had not been approved by the EPA or published in the Federal Register. Therefore, the attainment status that is recommended by the state but not officially approved/redesignated by the EPA is not included in the EIS.
140	20	NCTCOG	Add the following counties to the first sentence that are in nonattainment for ozone: Collin, Kaufman, Parker, Rockwall, and Wise.	Section 3.1.3.2 Northern Section: Oklahoma City to Dallas and Fort Worth should have included Collin, Kaufman, Parker, Rockwall, and Wise as counties that are in nonattainment for ozone.
140	21	NCTCOG	Discuss the current proposed Redesignation Request and Maintenance Plan State Implementation Plan Revision for Collin County's lead nonattainment.	The attainment status presented in Table 3.1-2 of theDraft EIS was based on status that has been officially approved by EPA and published in the Federal Register at the time the Draft EIS was prepared. On October 19, 2016, the TCEQ adopted the Collin County Redesignation Request and Maintenance Plan SIP Revision for the 2008 Lead NAAQS (Non-Rule Project No. 2016-003-SIP-NR). This SIP revision requests that the EPA redesignate the Collin County lead nonattainment area to attainment for the 2008 lead standard and provides a maintenance plan to ensure the area remains in attainment of the NAAQS through 2028. At the time of preparing this Final EIS, the status had not been approved by the EPA or published in the Federal Register. Therefore, the attainment status that is recommended by the state but not officially approved/redesignated by the EPA will not be included in the EIS.
140	22	NCTCOG	A review of the U.S. Energy Information Administration data (both 2014 and 2016) shows a significantly greater proportion of electricity production for Texas and Oklahoma as natural gas (>50%), not coal. Please revise.	Section 3.1.4.1.2 Long-Term Regional Operational Effects is incorrect in stating that 50 percent of electric power production for Texas and Oklahoma is from coal. As shown in Figure 3.10-2: Oklahoma and Texas Electricity Generation by Source of the EIS, according to 2015 U.S. Energy Information Administration data, 24 and 25 percent of electricity in Oklahoma and Texas, respectively is generated from coal.
140	23	NCTCOG	This alignment passes through the Dallas-Fort Worth nonattainment region. Add text similar to the Central Section portion on nonattainment.	The nonattainment of ozone and the related information for the Dallas - Fort Worth area were included for the Central Section in Section 3.1.3.3 of the Draft EIS.
140	24	NCTCOG	For the Final EIS, please update this section to reflect the finalized Green House Gas (GHG) guidance released August 1, 2016; update other GHG Sections in 3.1 as applicable.	A planning level GHG analysis was performed consistent with the program-level of analysis for the remainder of the EIS. The results of this analysis have been added to the EIS.
140	25	NCTCOG	Noise and vibration is absent from the discussions on potential socioeconomic impacts. Add a reference to Section 3.3 and acknowledge the impacts on the community.	The socioeconomic effects of noise and vibration are addressed in the Section 3.15.5 Environmental Consequences of the EIS.

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140	26	NCTCOG	Economic impacts to farming operations are not discussed. The document does state that areas that are rural would not receive economic impacts. However, farming operations could be impacted by the project if the alignment limits and/or prevents the movement of farm equipment and livestock.	This EIS is a service-level EIS that evaluates a reasonable range of corridor alternatives and passenger rail service types. As detailed in Chapter 3, Affected Environment and Environmental Consequences, a service-level analysis only evaluates a preliminary alignment to represent each EIS alternative, based on conceptual engineering that considered and avoided obvious physical or environmental constraints. The service-level analysis reviews generalized effects for a large swath within which the project area may occur and reports both the potentially adverse and beneficial effects without delineating the exact footprint of the alignment. These alignments are not refined to optimize performance, reduce cost, avoid specific properties or individual environmental resources, or for any other such considerations. Preferred alternatives selected at the service level may be developed further at a later date and the above considerations assessed at the project level. The project-level analysis determines specific project impacts while the service-level analysis analyzes and describes the general effects by alternative. The service-level analysis includes best management practices (BMPs), design features, and mitigation strategies that would address effects on a broad, service-level scale. The subsequent project-level analysis would include, but not be limited to, these BMPs, design features, and mitigation strategies.
140	27	NCTCOG	Year 2000 and 2010 populations should be based on the U.S. Census. Please update to the correct numbers or reference the U.S. Census Bureau 2000/2010 as a source.	As noted on page 3.15-2: "Population characteristics incorporate data from the U.S. Census Bureau and the states of Oklahoma and Texas to develop a general profile of the EIS Study Area compared with reference geographies including counties and states."
140	28	NCTCOG	Change all references (in tables and text) from "handicapped" to "disabled populations."	The U.S. Census Bureau refers to "disabled populations" rather than "handicapped populations". Wherever Section 3.15 Socioeconomics and Environmental Justice refers to "handicapped" it should be read as "disabled".
140	29	NCTCOG	Under Regional Economy and Employment Characteristics for all sections, no data or source is provided to support the statements that unemployment was higher in 2010 because of the recession.	The source, U.S. Bureau of Labor Statistics (2014), is provided as the source for Regional Economy and Employment Characteristics in DEIS Table 3.15-4, 3.15-7, and 3.15-10.
140	31	NCTCOG	The No Build could still have impacts to minority and low income populations. Lack of service and/or access to a new/better service could be an impact.	Section 3.15.5, Environmental Consequences notes that the No Build Alternative would not result in beneficial effects on these populations that would occur under the build alternatives as a result improving passenger rail service in the region.
140	32	NCTCOG	This alternative could create potential socioeconomic and environmental justice impacts due to additional vibration and noise from increased, faster trains.	As detailed in Section 3.3.4.3.1, Alternative N4A Conventional, there is potential for this alternative to have moderate noise and vibration effects on sensitive residential land uses along the alignment. Therefore, there is potential for noise and vibration effects on environmental justice communities along the alignment. The effects are likely to be negligible given the alternative is primarily within an existing transportation corridor.
140	33	NCTCOG	The No Build alternative could have an impact to all communities and environmental justice populations. The absence of an improved passenger rail service can cause negative impacts.	Comment noted. Section 3.15.5, Environmental Consequences notes that the No Build Alternative would not result in beneficial effects on these populations that would occur under the build alternatives as a result improving passenger rail service in the region.
140	34	NCTCOG	The Dallas to Fort Worth segment of Alternative N4A Rail estimated riders is stated as 227,503 passengers/year using the TRE corridor. This seems low as the TRE is estimated to have approximately 5 million annual riders in the Mobility 2035 Plan.	As stated in the NCTCOG comment, the model outputs represent the ridership for a specific alternative, in this case, Alternative N4A and not the entire TRE. As stated in the next comment response provided below, the results at the city level are specific to the pair of cities modeled and may not reflect the travel demand and transportation conditions occurring at the corridor level. The proposed project presented in this service-level analysis would use the TRE corridor. The annual ridership results provided for Alternative N4A represent supplemental ridership numbers for this project within the Dallas Metroplex and again using the TRE corridor.

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140	35	NCTCOG	For the central section, no build vehicle miles traveled (VMT) listed is not consistent between the alternatives. The no build alternative VMT should be the same for each comparison with an alternative.	The model outputs are presented at either the corridor level or the city pair level depending on the context (e.g., travel time vs. mode share). The results at the city level are specific to the pair of cities that are modeled, and may not reflect the travel demand and transportation conditions occurring at the corridor level. Therefore, a comparison between the modeled results at the corridor level versus the city level should not be made. Furthermore, because each alternative was evaluated as an independent alternative, the travel demand model accounts for the individual market segment identified for each alternative. For example, the No Build Alternative would have a different number of total trips (for all modes) compared to the total number of trips for Alternative N4A because each alternative is drawing from a different market segment. Another example is the model results shown for VMT. For instance, Alternative C4A Higher-Speed Rail serves both Austin Downtown and Austin Airport, while Alternative C4A High-Speed Rail only serves Austin Airport. As a result, when computing existing VMTs, the Austin Downtown market is included for Alternative C4A Higher-Speed Rail, but not included for Alternative C4A High-Speed Rail, thus resulting in different VMTs overall. Therefore, due to the nuances in the model outputs, a direct comparison between every alternative is not always possible. Instead, the model provides a reasonable measure of future changes in travel demand, mode share, etc., based on the specific alternative being evaluated.
140	36	NCTCOG	Suggest using the average persons per household reported by the U.S. Census American Community Survey, which would be more accurate than the methodology used.	This EIS is a service-level EIS that evaluates a reasonable range of corridor alternatives and passenger rail service types. As detailed in Chapter 3, Affected Environment and Environmental Consequences, a service-level analysis only evaluates a preliminary alignment to represent each EIS alternative, based on conceptual engineering that considered and avoided obvious physical or environmental constraints. The service-level analysis reviews generalized effects for a large swath within which the project area may occur and reports both the potentially adverse and beneficial effects without delineating the exact footprint of the alignment. These alignments are not refined to optimize performance, reduce cost, avoid specific properties or individual environmental resources, or for any other such considerations. Preferred alternatives selected at the service level may be developed further at a later date and the above considerations assessed at the project level. The project-level analysis determines specific project impacts while the service-level analysis analyzes and describes the general effects by alternative. The service-level analysis includes best management practices (BMPs), design features, and mitigation strategies that would address effects on a broad, service-level scale. The subsequent project-level analysis would include, but not be limited to, these BMPs, design features, and mitigation strategies.
140	37	NCTCOG	General - on most resources, the Northern Section is dismissed for minor or no cumulative impacts. Evaluation of the potential cumulative effects of stations and growth around these new stations needs to be added.	The EIS did not evaluate specific station locations, and no conclusion about the exact location of stations were made as part of this service-level EIS. However, based on ridership data and transit connectivity information developed as part of the alternatives analysis for this EIS, the cities in which stations could potentially be located have been determined. In some cities, station locations have been assumed for the purposes of the EIS (Table 2-9) but a final decision on exact station locations was not made as part of the EIS. Station location, size, and design will be determined during project-level analysis. The potential for cumulative effects related to stations and growth was considered at the service-level of analysis in Section 6.4.12 of the DEIS.
140	38	NCTCOG	Discuss the cumulative effects on the nonattainment status of the Dallas-Fort Worth region.	As detailed in Section 6.4.1.2 of the Draft EIS, the cumulative effect of the build alternatives with the planned transit and rail lines in the Dallas and Fort Worth metropolitan area would be to promote decreased reliance on highway travel, thus reducing regional emissions of air pollutants including ozone and lead for which the area is currently in nonattainment.

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140	39	NCTCOG	The proposed alignment and potential stations, in addition to the known transportation projects, are within wetland areas in the Dallas-Fort Worth region. The document should state there are potential cumulative impacts to wetland areas.	Section 6.4.5, Wetlands states that highway expansion projects in the Dallas and Fort Worth area have the potential to have pollution effects on wetlands. However, it also states that because Alternative N4A Conventional would remain within the existing railroad right-of-way, predominantly using existing tracks and infrastructure, wetland effects from this alternative would be negligible and therefore it is unlikely that this alternative would contribute to cumulative wetland effects with other transportation projects in the area. The EIS did not evaluate specific station locations, and no conclusion about the exact location of stations were made as part of this service-level EIS. However, based on ridership data and transit connectivity information developed as part of the alternatives analysis for this EIS, the cities in which stations could potentially be located have been determined. In some cities, station locations have been assumed for the purposes of the EIS (Table 2-9) but a final decision on exact station locations was not made as part of the EIS. Station location, size, and design will be determined during project-level analysis.
140	40	NCTCOG	The alignments would pass through potential habitat for Black-Capped Vireo and Golden Cheeked Warbler. Additionally nesting pairs of Interior Least Terns have been documented around the proposed cumulative impact area and are known to nest in urbanized industrial locations in the Dallas-Fort Worth region. The document should state there are potential cumulative impacts to threatened and endangered species habitat.	As described in Section 6.4.6, Threatened and Endangered Species and Section 6.4.6.2, Central Section: Dallas and Fort Worth to San Antonio, the potential for cumulative effects to threatened and endangered species has been discussed at the service-level of analysis.
140	42	NCTCOG	Update year 2035 data and text references to year 2040.	The North Central Texas Council of Governments (NCTCOG) coordinates with cities, counties and transportation partners to plan road, transit, bicycle and pedestrian transportation improvements for North Texas. Mobility 2035 as updated June 2013 was the most recent Mobility document available from NCTCOG at the time conceptual engineering and alternatives analysis was being completed and the advance Administrative DEIS was being generated. Mobility 2040 was adopted by the Regional Transportation Council in March 2016, after work to prepare the DEIS was well underway. At the service level, the proposed alternatives and corresponding alignments should be consistent with the objectives defined with the Mobility 2040 document. Data from the most current Mobility report at the time would be considered during project-level analysis at a future date. The alternatives developed at the service level would not conflict with alternatives NCTCOG may consider at the project level.
140	43	NCTCOG	The methodology used to grow the demographics and travel markets (auto, air and bus) to the horizon year (2035) should be provided and updated to 2040.	The North Central Texas Council of Governments (NCTCOG) coordinates with cities, counties and transportation partners to plan road, transit, bicycle and pedestrian transportation improvements for North Texas. Mobility 2035 as updated June 2013 was the most recent Mobility document available from NCTCOG at the time conceptual engineering and alternatives analysis was being completed and the advance Administrative DEIS was being generated. Mobility 2040 was adopted by the Regional Transportation Council in March 2016, after work to prepare the DEIS was well underway. At the service level, the proposed alternatives and corresponding alignments should be consistent with the objectives defined with the Mobility 2040 document. Data from the most current Mobility report at the time would be considered during project-level analysis at a future date. The alternatives developed at the service level would not conflict with alternatives NCTCOG may consider at the project level.
140	44	NCTCOG	Validation results of travel demand model should be provided.	Travel Demand Model outputs, datasources, and transportation conditions are all provided in Appendix L, Section 3.0, Evaluation Methods. Specific sources used in the preparation are provided in Appendix L, Section 8.0, References. The level of detail in the demand modeling for this service level analysis was used for identifying preferred alternatives for future additional study. Additional information regarding the modeling is included in the Service Development Plan that has been prepared concurrently with the EIS. At the service level, no alternatives are recommended for implementation, but rather for additional study. At the project level, more detailed travel and service modeling would be performed and would include sufficient evaluation to support decisions of whether or not to implement an alternative.
140	45	NCTCOG	Fare policy, train frequency and speed assumptions should be provided.	Fare policies and train frequencies for each operating scenario were assumed and validated in the Corridor Level Demand model developed for the EIS phase. The results from this effort were used in support of the air quality/GHG (Section 3.1) and travel demand/transportation (Section 3.20) analysis.

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141	1		I'm concerned about having a train come in from the north and leave to the south and vice versa through SO MUCH existing business and housing. It has been suggested that a train would be going through every 30 minutes. Even if it was every two hours, that's a huge interruption in the peace and quiet of life in Waco.	Waco is located in the Central Section. As detailed in Section 3.3.4, Environmental Consequences, the high-speed rail alternatives (which are the preferred alternatives) in the Central Section would have moderate to negligible potential intensity effects on noise and vibration-sensitive land uses. Section 3.3.5, Avoidance, Minimization and Mitigation Strategies states that strategies will be developed to reduce noise and vibration for affected communities. Future project-specific noise analysis will provide more accurate predictions for both noise and vibration, and recommend appropriate avoidance, minimization, and mitigation strategies.
141	3		No rail system in this nation operates in the black. In some places it is acceptable. The net economic effect balances out. That won't happen with this one. I don't believe this is best for the citizens of Waco or the taxpayers of Texas. I just don't believe that ridership will be sufficient to maintain the project.	Appendix D - Alternatives Analysis Report states "The revenue/operating cost ratio, which is a strong indicator of long-term financial feasibility, surpasses 100% for the C4 alignment with high-speed service." This indicates that in the central Texas area, service operating revenues would have the potential to equal or exceed operation and maintenance costs.
141	5		I don't think it really saves any time. Traveling from Dallas to Austin in about an hour and a half would be great, but that doesn't include the time planning the trip, waiting for the train or waiting for local transportation.	As detailed in Section 3.20.2, Methodology, the travel time savings associated with the alternatives only takes into consideration the travel time (i.e., the on-train, on-plane, and on-bus time) and the transfer time between city pairs. Trip planning time and time waiting at the beginning of a trip was not taken into account.
141	6		I believe that even this study is wasteful. I'd rather have another parallel highway to I-35. It would be cheaper to maintain, would carry more people and would cause less disruption in our quiet lives.	The purpose of this DEIS is to provide service level analysis on passenger rail service and does not include analysis of other mode choices, such as highway or air travel or other technologies such as hyperloop, which was not considered or evaluated as a viable transportation option.
142	1		We have witnessed the high traffic density between Brownsville and McAllen/Edinburg. Professors and students, among other local residents, are constantly moving back and forth between the two campuses, 60 miles apart. We therefore strongly support the creation of a rail connection that would run between these cities and also connect us to the existing rail lines in San Antonio and further north, east, and west. We both would welcome the option of taking a train to get around the state of Texas, especially a fast train that would get us from city to city more efficiently than driving.	Comment noted. As detailed in Section 2.3.3, Preferred Alternative, a recommended preferred alternative in the Southern Section includes Alternative S4 Higher-Speed Rail which connects McAllen and Brownsville. This alternative also connects to San Antonio as well as to Corpus Christi.
143	1		I strongly support the construction of a rail line from South Texas northward. I recently moved to Brownsville and have found traffic from Austin to San Antonio, and from McAllen/Edinburg to Brownsville to be quite heavy. Thus, connecting these communities to each other and all across the state would be very beneficial.	Comment noted. As detailed in Section 2.3.3, Preferred Alternative, a recommended preferred alternative in the Southern Section includes Alternative S4 Higher-Speed Rail which connects McAllen and Brownsville. This alternative also connects to San Antonio as well as to Corpus Christi.
144	1	DALT	I respectfully disagree with the concept of HSR for the segments south of DFW. The costs and timelines don't do us any favors. The Northern segment utilizing conventional service is much more rational. Maintaining conventional operations on to the south will enable riders to stay put and not lose the 60-70?% cross platform drop that changing modes experiences.	Preliminary modeling performed for TOPRS indicate that high speed service within the central section of the state wil attract more consistent ridership than either conventional or higher-speed service. However, modeling indicated that north of the DFW metroplex, neitherr high speed nor hiiger speed rail would perform any better than coventiional service. Details regarding how preferred alternatives might connect would be analyzed during project-level analysis after completion of the service-level EIS.
145	1		I support its development. The best compromise is for higher speed service as this would be most readily available both for cost and offering reasonable travel times across the state between cities it would service.	The Appendix D - Alternatives Analysis Report indicates that high-speed rail in the central segment would perform at a higher profitability ratio than higher-speed service.
145	2		A passenger rail system offers a transportation system that can be developed at a significantly lower cost than any complete expansion of I35. What is lacking is a dedicated funding source for development.	Funding and financing have been analyzed and reported separately in the Service Development Plan that has been prepared concurrently with the EIS. Additional details may be found in that plan.
145	3		As proposed the only significant route debate is which service needs to be pursued in south Texas; direct to Laredo or branched out to Corpus Christi and the valley. The first afford a possible link to Mexico. The second serves a larger population of Texas.	More than one alternative in the Central or Southern sections could be built in the future because the alternatives provide service options for different destinations. Alternatives S4 and S6 are assumed to serve two distinctly different areas of the state, and selection of one does not preclude selection of the other. Details on connecting the alternatives would be determined during project-level studies.

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146	1		I would like to see the Northern Section incorporate, or at least coordinate closely with the Heartland Flier. I would like to see how the Lone Star Rail could be in part of the Central Section. Also, what is Amtrak's Texas Eagle's involvement?	The purpose of the Program study was to assess intercity passenger rail service within the Program corridor to identify preferred alternatives for new or improved service. As the Heartland Flyer is included within the Program footprint and the preferred alternative for its service area is conventional service, one future option is to study enhancements to that existing rail system. On the other hand, the Texas Eagle services a route and ridership that extends far outside of the Program footprint, north to Chicago, and this service area is well outside of the consideration of the Program study. Therefore, changes to the Texas Eagle were not directly addressed at the service level in this study. However, a subsequent project level study could consider the relationship of the Texas Eagle to potential new service including routes, stations, overlap or changeovers, and speed of service for project level improvements.
146	2		I think it would be good to prioritize the different routes, eventually to build all of them.	This EIS is a service-level EIS that evaluates a reasonable range of corridor alternatives and passenger rail service types. As detailed in Chapter 3, Affected Environment and Environmental Consequences, a service-level analysis only evaluates a preliminary alignment to represent each EIS alternative, based on conceptual engineering that considered and avoided obvious physical or environmental constraints. The service-level analysis reviews generalized effects for a large swath within which the project area may occur and reports both the potentially adverse and beneficial effects without delineating the exact footprint of the alignment. These alignments are not refined to optimize performance, reduce cost, avoid specific properties or individual environmental resources, or for any other such considerations. Preferred alternatives selected at the service level may be developed further at a later date and the above considerations assessed at the project level. The project-level analysis determines specific project impacts while the service-level analysis analyzes and describes the general effects by alternative. The service-level analysis includes best management practices (BMPs), design features, and mitigation strategies that would address effects on a broad, service-level scale. The subsequent project-level analysis would include, but not be limited to, these BMPs, design features, and mitigation strategies.
146	4		I would like to see the project developed further, and not put on the shelf. It would be helpful to have a list of funding options -- to begin preliminary design -- develop more detail.	Funding and financing have been analyzed and reported separately in the Service Development Plan that has been prepared concurrently with the EIS. Additional details may be found in that plan.
147	1	Community Bank & Trust	I am writing to you today to convey my support for any of the three alternatives for a high-speed rail line along the I-35 corridor,	As detailed in Section 2.3.3, Preferred Alternative, all of the high-speed rail alternatives in the Central Section were selected as preferred alternatives.
147	2	Community Bank & Trust	and for designation of Waco as a station location.	The EIS did not evaluate specific station locations, and no conclusion about the exact location of stations were made as part of this service-level EIS. However, based on ridership data and transit connectivity information developed as part of the alternatives analysis for this EIS, the cities in which stations could potentially be located have been determined. In some cities, station locations have been assumed for the purposes of the EIS (Table 2-9) but a final decision on exact station locations was not made as part of the EIS. Station location, size, and design will be determined during project-level analysis.
148	3		Selection of Waco for a station location	The EIS did not evaluate specific station locations, and no conclusion about the exact location of stations were made as part of this service-level EIS. However, based on ridership data and transit connectivity information developed as part of the alternatives analysis for this EIS, the cities in which stations could potentially be located have been determined. In some cities, station locations have been assumed for the purposes of the EIS (Table 2-9) but a final decision on exact station locations was not made as part of the EIS. Station location, size, and design will be determined during project-level analysis.
149	2	City of Waco	…as well as the designation of Waco as a potential station location….	The EIS did not evaluate specific station locations, and no conclusion about the exact location of stations were made as part of this service-level EIS. However, based on ridership data and transit connectivity information developed as part of the alternatives analysis for this EIS, the cities in which stations could potentially be located have been determined. In some cities, station locations have been assumed for the purposes of the EIS (Table 2-9) but a final decision on exact station locations was not made as part of the EIS. Station location, size, and design will be determined during project-level analysis.

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149	4	City of Waco	As the Program progresses to Tier 2 design and environmental review, we request that the Central section preferred alternative routes expand the study area through downtown Waco to the west, between IH-35 and US Highway 84.	The alternatives evaluated in this EIS have been developed to a level of detail appropriate for a service-level analysis: the route alternatives represent a potential corridor where rail improvements could be implemented, but do not specify the precise location of the track alignment. Route alternatives in the Northern, Central, and Southern sections could be built as individual, stand-alone projects or in combination with alignments in another section. Details on connecting the alternatives would be determined during project-level studies.
149	5	City of Waco	We also request that the existing Waco Intermodal Center at 8th Street and Mary Avenue or a site in the immediate vicinity be considered as the location for the downtown Waco station. Adding a passenger rail connection complements the establishment of a planned Bus Rapid Transit (BRT) line, and could provide an opportunity for future transit-oriented development.	The EIS did not evaluate specific station locations, and no conclusion about the exact location of stations were made as part of this service-level EIS. However, based on ridership data and transit connectivity information developed as part of the alternatives analysis for this EIS, the cities in which stations could potentially be located have been determined. In some cities, station locations have been assumed for the purposes of the EIS (Table 2-9) but a final decision on exact station locations was not made as part of the EIS. Station location, size, and design will be determined during project-level analysis.
150	4	Greater Waco Chamber	We stand ready to help in any way possible in establishing a station location in Waco. We believe Waco is the most logical choice for a station along the route.	The EIS did not evaluate specific station locations, and no conclusion about the exact location of stations were made as part of this service-level EIS. However, based on ridership data and transit connectivity information developed as part of the alternatives analysis for this EIS, the cities in which stations could potentially be located have been determined. In some cities, station locations have been assumed for the purposes of the EIS (Table 2-9) but a final decision on exact station locations was not made as part of the EIS. Station location, size, and design will be determined during project-level analysis.
151	3	Waco Business League	The recent explosion of new business, the continued growth of industry, the major influence of the local colleges, and the burgeoning cultural activity necessitate a stop in Waco. The Waco Business League is ready to support the new "Waco Station" in any and every way it can.	The EIS did not evaluate specific station locations, and no conclusion about the exact location of stations were made as part of this service-level EIS. However, based on ridership data and transit connectivity information developed as part of the alternatives analysis for this EIS, the cities in which stations could potentially be located have been determined. In some cities, station locations have been assumed for the purposes of the EIS (Table 2-9) but a final decision on exact station locations was not made as part of the EIS. Station location, size, and design will be determined during project-level analysis.
152	2	Cooper Family Enterprises	and for designation of Waco as a station location.	The EIS did not evaluate specific station locations, and no conclusion about the exact location of stations were made as part of this service-level EIS. However, based on ridership data and transit connectivity information developed as part of the alternatives analysis for this EIS, the cities in which stations could potentially be located have been determined. In some cities, station locations have been assumed for the purposes of the EIS (Table 2-9) but a final decision on exact station locations was not made as part of the EIS. Station location, size, and design will be determined during project-level analysis.
153	2	Baylor University	and specifically the opportunity for a station location in Waco.	The EIS did not evaluate specific station locations, and no conclusion about the exact location of stations were made as part of this service-level EIS. However, based on ridership data and transit connectivity information developed as part of the alternatives analysis for this EIS, the cities in which stations could potentially be located have been determined. In some cities, station locations have been assumed for the purposes of the EIS (Table 2-9) but a final decision on exact station locations was not made as part of the EIS. Station location, size, and design will be determined during project-level analysis.
154	1	CentexAGC	The CentexAGC began discussion and concluded with support for the Texas Oklahoma Passenger Rail Study as early as March 2014. We recognize that IH35 does not, and cannot possibly keep up with the civilian and freight hauling demands now, or in the future. We strongly support the following: Central Section Alternative Routes C2B, C4A and C4B	As detailed in Section 2.3.3, Preferred Alternative, Alternatives C4A and C4B High-Speed Rail were selected as preferred alternatives. Alternative C2B was eliminated during the screening process and was not carried forward for further analysis in the DEIS.
154	3	CentexAGC	Selection of Waco for a station location	The EIS did not evaluate specific station locations, and no conclusion about the exact location of stations were made as part of this service-level EIS. However, based on ridership data and transit connectivity information developed as part of the alternatives analysis for this EIS, the cities in which stations could potentially be located have been determined. In some cities, station locations have been assumed for the purposes of the EIS (Table 2-9) but a final decision on exact station locations was not made as part of the EIS. Station location, size, and design will be determined during project-level analysis.

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155	2	Southwestern Commercial Properties, LLC.	Please accept this letter in support of: Central Section Alternative Routes C2B,C4A, and C4B	As detailed in Section 2.3.3, Preferred Alternative, Alternatives C4A and C4B High-Speed Rail were selected as preferred alternatives. Alternative C2B was eliminated during the screening process and was not carried forward for further analysis in the DEIS.
155	3	Southwestern Commercial Properties, LLC.	Selection of Waco for a station location	The EIS did not evaluate specific station locations, and no conclusion about the exact location of stations were made as part of this service-level EIS. However, based on ridership data and transit connectivity information developed as part of the alternatives analysis for this EIS, the cities in which stations could potentially be located have been determined. In some cities, station locations have been assumed for the purposes of the EIS (Table 2-9) but a final decision on exact station locations was not made as part of the EIS. Station location, size, and design will be determined during project-level analysis.
156	1	Brazos Higher Education Service Corporation, Inc.	This is to convey to you my support of the concept of the fast train between D/FW and Houston, running parallel along the I-35 corridor. The International Great Northern Railroad was constructed from Fort Worth to Houston in 1900-1905 and that old right of way I understand has mostly been abandoned, and is the shortest distance between the two communities. You do not want to create new problems of the right of way being bogged down through highly dense residential areas or commercial properties that would require crossings at grade and thereby creating future problems for the operation of the transportation system. Run the high speed...adjacent to the town with local access to the roads, highways, city buses and air transportation, which will benefit everyone and enhance the value of the assets within the communities of Texas. You cannot stop at every community and you cannot build multiple crossings at grade and have a high speed train if you have public safety at your grade crossing.	Houston is not in the Study Area, and connectivity was not part of the project purpose and need, which is gocused generally on the IH-35 corridor of cities. However, the alternatives in this study would not preclude potential rail connections between this study area and Houston, which would have to be the subject of a separate study.
157	2	Cooper Foundation	Please accept this letter in support of: Central Section Alternative Routes C2B,C4A, and C4B	As detailed in Section 2.3.3, Preferred Alternative, Alternatives C4A and C4B High-Speed Rail were selected as preferred alternatives. Alternative C2B was eliminated during the screening process and was not carried forward for further analysis in the DEIS.
157	3	Cooper Foundation	Selection of Waco for a station location	The EIS did not evaluate specific station locations, and no conclusion about the exact location of stations were made as part of this service-level EIS. However, based on ridership data and transit connectivity information developed as part of the alternatives analysis for this EIS, the cities in which stations could potentially be located have been determined. In some cities, station locations have been assumed for the purposes of the EIS (Table 2-9) but a final decision on exact station locations was not made as part of the EIS. Station location, size, and design will be determined during project-level analysis.
158	2	Tekell & Atkins, LLP.	and for designation of Waco as a station location.	The EIS did not evaluate specific station locations, and no conclusion about the exact location of stations were made as part of this service-level EIS. However, based on ridership data and transit connectivity information developed as part of the alternatives analysis for this EIS, the cities in which stations could potentially be located have been determined. In some cities, station locations have been assumed for the purposes of the EIS (Table 2-9) but a final decision on exact station locations was not made as part of the EIS. Station location, size, and design will be determined during project-level analysis.
159	2	WT&C	and for designation of Waco as a station location.	The EIS did not evaluate specific station locations, and no conclusion about the exact location of stations were made as part of this service-level EIS. However, based on ridership data and transit connectivity information developed as part of the alternatives analysis for this EIS, the cities in which stations could potentially be located have been determined. In some cities, station locations have been assumed for the purposes of the EIS (Table 2-9) but a final decision on exact station locations was not made as part of the EIS. Station location, size, and design will be determined during project-level analysis.
160	2	Coldwell Banker Jim Stewart, Realtors	and for designation of Waco as a station location.	The EIS did not evaluate specific station locations, and no conclusion about the exact location of stations were made as part of this service-level EIS. However, based on ridership data and transit connectivity information developed as part of the alternatives analysis for this EIS, the cities in which stations could potentially be located have been determined. In some cities, station locations have been assumed for the purposes of the EIS (Table 2-9) but a final decision on exact station locations was not made as part of the EIS. Station location, size, and design will be determined during project-level analysis.

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161	2	Greater Hewitt Chamber	and for designation of Waco as a station location.	The EIS did not evaluate specific station locations, and no conclusion about the exact location of stations were made as part of this service-level EIS. However, based on ridership data and transit connectivity information developed as part of the alternatives analysis for this EIS, the cities in which stations could potentially be located have been determined. In some cities, station locations have been assumed for the purposes of the EIS (Table 2-9) but a final decision on exact station locations was not made as part of the EIS. Station location, size, and design will be determined during project-level analysis.
162	2	Greater Hewitt Chamber	Please accept this letter in support of: Central Section Alternative Routes C2B,C4A, and C4B	As detailed in Section 2.3.3, Preferred Alternative, Alternatives C4A and C4B High-Speed Rail were selected as preferred alternatives. Alternative C2B was eliminated during the screening process and was not carried forward for further analysis in the DEIS.
162	3	Greater Hewitt Chamber	Selection of Waco for a station location	The EIS did not evaluate specific station locations, and no conclusion about the exact location of stations were made as part of this service-level EIS. However, based on ridership data and transit connectivity information developed as part of the alternatives analysis for this EIS, the cities in which stations could potentially be located have been determined. In some cities, station locations have been assumed for the purposes of the EIS (Table 2-9) but a final decision on exact station locations was not made as part of the EIS. Station location, size, and design will be determined during project-level analysis.
163	2	Lone Star Advertising. LLC	and for designation of Waco as a station location.	The EIS did not evaluate specific station locations, and no conclusion about the exact location of stations were made as part of this service-level EIS. However, based on ridership data and transit connectivity information developed as part of the alternatives analysis for this EIS, the cities in which stations could potentially be located have been determined. In some cities, station locations have been assumed for the purposes of the EIS (Table 2-9) but a final decision on exact station locations was not made as part of the EIS. Station location, size, and design will be determined during project-level analysis.
164	2	Lone Star Advertising. LLC	Please accept this letter in support of: Central Section Alternative Routes C2B,C4A, and C4B	As detailed in Section 2.3.3, Preferred Alternative, Alternatives C4A and C4B High-Speed Rail were selected as preferred alternatives. Alternative C2B was eliminated during the screening process and was not carried forward for further analysis in the DEIS.
164	3	Lone Star Advertising. LLC	Selection of Waco for a station location	The EIS did not evaluate specific station locations, and no conclusion about the exact location of stations were made as part of this service-level EIS. However, based on ridership data and transit connectivity information developed as part of the alternatives analysis for this EIS, the cities in which stations could potentially be located have been determined. In some cities, station locations have been assumed for the purposes of the EIS (Table 2-9) but a final decision on exact station locations was not made as part of the EIS. Station location, size, and design will be determined during project-level analysis.
165	2	Greater Waco Chamber	and for designation of Waco as a station location.	The EIS did not evaluate specific station locations, and no conclusion about the exact location of stations were made as part of this service-level EIS. However, based on ridership data and transit connectivity information developed as part of the alternatives analysis for this EIS, the cities in which stations could potentially be located have been determined. In some cities, station locations have been assumed for the purposes of the EIS (Table 2-9) but a final decision on exact station locations was not made as part of the EIS. Station location, size, and design will be determined during project-level analysis.
166	2	Rick Sheldon Real Estate	and for designation of Waco as a station location.	The EIS did not evaluate specific station locations, and no conclusion about the exact location of stations were made as part of this service-level EIS. However, based on ridership data and transit connectivity information developed as part of the alternatives analysis for this EIS, the cities in which stations could potentially be located have been determined. In some cities, station locations have been assumed for the purposes of the EIS (Table 2-9) but a final decision on exact station locations was not made as part of the EIS. Station location, size, and design will be determined during project-level analysis.
167	2	Rick Sheldon Real Estate	Please accept this letter in support of: Central Section Alternative Routes C2B,C4A, and C4B	As detailed in Section 2.3.3, Preferred Alternative, Alternatives C4A and C4B High-Speed Rail were selected as preferred alternatives. Alternative C2B was eliminated during the screening process and was not carried forward for further analysis in the DEIS.

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167	3	Rick Sheldon Real Estate	Selection of Waco for a station location	The EIS did not evaluate specific station locations, and no conclusion about the exact location of stations were made as part of this service-level EIS. However, based on ridership data and transit connectivity information developed as part of the alternatives analysis for this EIS, the cities in which stations could potentially be located have been determined. In some cities, station locations have been assumed for the purposes of the EIS (Table 2-9) but a final decision on exact station locations was not made as part of the EIS. Station location, size, and design will be determined during project-level analysis.
168	3	Rick Sheldon Real Estate	Selection of Waco for a station location	The EIS did not evaluate specific station locations, and no conclusion about the exact location of stations were made as part of this service-level EIS. However, based on ridership data and transit connectivity information developed as part of the alternatives analysis for this EIS, the cities in which stations could potentially be located have been determined. In some cities, station locations have been assumed for the purposes of the EIS (Table 2-9) but a final decision on exact station locations was not made as part of the EIS. Station location, size, and design will be determined during project-level analysis.
169	2	Rick Sheldon Real Estate	Please accept this letter in support of: Central Section Alternative Routes C2B,C4A, and C4B	As detailed in Section 2.3.3, Preferred Alternative, Alternatives C4A and C4B High-Speed Rail were selected as preferred alternatives. Alternative C2B was eliminated during the screening process and was not carried forward for further analysis in the DEIS.
169	3	Rick Sheldon Real Estate	Selection of Waco for a station location	The EIS did not evaluate specific station locations, and no conclusion about the exact location of stations were made as part of this service-level EIS. However, based on ridership data and transit connectivity information developed as part of the alternatives analysis for this EIS, the cities in which stations could potentially be located have been determined. In some cities, station locations have been assumed for the purposes of the EIS (Table 2-9) but a final decision on exact station locations was not made as part of the EIS. Station location, size, and design will be determined during project-level analysis.
170	2	Rick Sheldon Real Estate	and for designation of Waco as a station location.	The EIS did not evaluate specific station locations, and no conclusion about the exact location of stations were made as part of this service-level EIS. However, based on ridership data and transit connectivity information developed as part of the alternatives analysis for this EIS, the cities in which stations could potentially be located have been determined. In some cities, station locations have been assumed for the purposes of the EIS (Table 2-9) but a final decision on exact station locations was not made as part of the EIS. Station location, size, and design will be determined during project-level analysis.
171	2	Rick Sheldon Real Estate	and for designation of Waco as a station location.	The EIS did not evaluate specific station locations, and no conclusion about the exact location of stations were made as part of this service-level EIS. However, based on ridership data and transit connectivity information developed as part of the alternatives analysis for this EIS, the cities in which stations could potentially be located have been determined. In some cities, station locations have been assumed for the purposes of the EIS (Table 2-9) but a final decision on exact station locations was not made as part of the EIS. Station location, size, and design will be determined during project-level analysis.
172	2	APCS, LLC	Please accept this letter in support of: Central Section Alternative Routes C2B,C4A, and C4B	As detailed in Section 2.3.3, Preferred Alternative, Alternatives C4A and C4B High-Speed Rail were selected as preferred alternatives. Alternative C2B was eliminated during the screening process and was not carried forward for further analysis in the DEIS.
172	3	APCS, LLC	Selection of Waco for a station location	The EIS did not evaluate specific station locations, and no conclusion about the exact location of stations were made as part of this service-level EIS. However, based on ridership data and transit connectivity information developed as part of the alternatives analysis for this EIS, the cities in which stations could potentially be located have been determined. In some cities, station locations have been assumed for the purposes of the EIS (Table 2-9) but a final decision on exact station locations was not made as part of the EIS. Station location, size, and design will be determined during project-level analysis.
173	1	Kelly Realtors	I am writing to show my support of the high speed rail line along the I-35 corridor and to request that Waco be a designated stop and passenger station.	The EIS did not evaluate specific station locations, and no conclusion about the exact location of stations were made as part of this service-level EIS. However, based on ridership data and transit connectivity information developed as part of the alternatives analysis for this EIS, the cities in which stations could potentially be located have been determined. In some cities, station locations have been assumed for the purposes of the EIS (Table 2-9) but a final decision on exact station locations was not made as part of the EIS. Station location, size, and design will be determined during project-level analysis.

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173	2	Kelly Realtors	Waco serves as a central point of distribution for Texas. Connecting Dallas, Waco, and Austin with a high-speed rail line will help provide a stronger transportation infrastructure and serve as a viable alternative to the congestion on I-35.	The EIS did not evaluate specific station locations, and no conclusion about the exact location of stations were made as part of this service-level EIS. However, based on ridership data and transit connectivity information developed as part of the alternatives analysis for this EIS, the cities in which stations could potentially be located have been determined. In some cities, station locations have been assumed for the purposes of the EIS (Table 2-9) but a final decision on exact station locations was not made as part of the EIS. Station location, size, and design will be determined during project-level analysis.
173	5	Kelly Realtors	Selection of Waco for a station location	The EIS did not evaluate specific station locations, and no conclusion about the exact location of stations were made as part of this service-level EIS. However, based on ridership data and transit connectivity information developed as part of the alternatives analysis for this EIS, the cities in which stations could potentially be located have been determined. In some cities, station locations have been assumed for the purposes of the EIS (Table 2-9) but a final decision on exact station locations was not made as part of the EIS. Station location, size, and design will be determined during project-level analysis.
174	1	EPA	The Clean Water Act (CWA) Section 404 regulates the discharge of dredged or fill material into waters of the United States (WOUS), including wetlands and other special aquatic sites. Due to the nature of the proposed Passenger Rail Program project, which will require dredging and placement of fill required for construction of aboveground facilities, including potential placement in WOUS it will require a Section 404 permit under the CWA. As such, the applicant should coordinate with the US Army Corps of Engineers (Corps). EPA recommends that the Federal Railroad Administration (FRA) include a wetland delineation for the project area in accordance with the 1987 Corps of Engineers Wetlands Delineation Manual and the December 2006 Atlantic and Gulf Coast Region Interim Regional Supplement to the Corps of Engineers Wetland Delineation Manual. A Corps approved jurisdictional determination (JO) will al o be required to confirm the extent of the jurisdictional WOUS in the project area that may be directly or indirectly impacted by the project.	The methodology for the wetlands evaluation in the EIS consists of a service-level quantitative assessment, not a detailed evaluation of individual potential wetlands. As detailed in Section 3.6.6, Subsequent Analysis, wetland delineation (and submittal of the delineation to the USACE for jurisdictional determination) will be conducted at the project-level of analysis. Project-level analysis will include an evaluation of alternatives and consideration of avoidance, minimization, and mitigation strategies as described in Section 3.6.5, Avoidance, Minimization, and Mitigation Strategies.
174	2	EPA	When the Corps issues a public notice for the CWA Section 404 permit application, the EPA will review the project for compliance with Federal Guidelines for specification of Disposal sites for Dredged or Fill Materials (40 CFR 230). promulgated pursuant to Section 404(b)(l) of the CWA. Pursuant to 40 CFR 230, any permitted discharge into WOU must be the least environmentally damaging practicable alternative available to achieve the project purpose. We recommend the FEIS include an evaluation of the project alternatives in this context in order to demonstrate the project's compliance with the 404 (b) (1) Guidelines. If, under the proposed project, dredged or fill material would be discharged into WOUS, we recommend that the FEIS discuss alternatives to avoid and minimize those discharges.	The methodology for the wetlands evaluation in the EIS consists of a service-level quantitative assessment, not a detailed evaluation of individual potential wetlands. As detailed in Section 3.6.6, Subsequent Analysis, wetland delineation (and submittal of the delineation to the USACE for jurisdictional determination) will be conducted at the project-level of analysis. Project-level analysis will include an evaluation of alternatives and consideration of avoidance, minimization, and mitigation strategies as described in Section 3.6.5, Avoidance, Minimization, and Mitigation Strategies.
174	3	EPA	If the project proposed in the Service Level DEIS would require dredging or disposal of fill material in WOUS, the applicant should be aware that, depending on the method of disposal proposed, it may be necessary to test the dredged material for contaminants prior to placement. If the material would be placed in an upland confined disposal facility, but would result in a discharge of effluent to WOUS, this discharge would require water quality certification under CWA Section 40 l . Section 230.1 O(b) (1) prohibits the disposal of dredged material that might violate applicable water quality standards, after consideration of disposal site dilution and dispersion. Therefore, sediment contaminant testing should be performed using the Corps Upland Testing Manual in cases where potentially contaminated dredged material is proposed for disposal in a Confined Disposal Facility, and there is the potential for release of contamination into WOUS through effluent. If the material would be placed into WOUS for beneficial use, such as creation of wetlands, then sediments should be tested for contamination according to the Corps/EPA Inland Testing Manual to determine their suitability for open water disposal.	The need to dredge or dispose of fill material (and to test such material for contamination) into Waters of the United States would be determined during project-level analysis.

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174	4	EPA	In addition, EPA recommends that FRA prepare a draft wetland mitigation plan for review and comment by EPA, the Corps, and other interested stakeholders. The mitigation plan should compensate for unavoidable impacts to aquatic resources, and be included in the DEIS along with the applicant's analysis and any additional information relevant to potential impacts to wetlands and other aquatic resources.	The methodology for the wetlands evaluation in the EIS consists of a service-level quantitative assessment, not a detailed evaluation of individual potential wetlands. As detailed in Section 3.6.6, Subsequent Analysis, wetland delineation will be conducted at the project-level of analysis. Project-level analysis will also include consideration of appropriate avoidance, minimization, and mitigation strategies (as described in Section 3.6.5, Avoidance, Minimization, and Mitigation Strategies) which may include development of a wetland mitigation plan.
174	5	EPA	EPA recommends the FEIS describe the original (natural) drainage patterns in the project locale, as well as the drainage patterns of the area during project operations. Also, we recommend the EIS identify whether any components of the proposed project are within a 50 or 100-year floodplain.	As detailed in Section 3.8.6, Subsequent Analysis, potential impacts on the 100-year floodplains will be assessed during project-level analysis based on project design details, site-specific mapping of drainage patterns, and hydrologic analysis.
174	6	EPA	We also recommend noting that, under the Federal Clean Water Act, any construction project disturbing a land area of one or more acres requires a construction storm water discharge permit.	Chapter 7, Permits, lists the permits potentially required for construction of the Program, including permits relating to construction storm water discharge. Permit requirements would be determined during project-level analysis. Avoidance, minimization, and mitigation measures for reducing potential impacts to water quality and aquatic resources will be determined during project-level analysis. Measures will likely include development of a stormwater pollution prevention plan.
174	7	EPA	EPA recommends the FEIS document the project's consistency with applicable storm water permitting requirements. Requirements of a storm water pollution prevention plan would be reflected as appropriate in the FEIS.	Chapter 7, Permits, lists the permits potentially required for construction of the Program, including permits relating to construction storm water discharge. Permit requirements would be determined during project-level analysis. Avoidance, minimization, and mitigation measures for reducing potential impacts to water quality and aquatic resources will be determined during project-level analysis. Measures will likely include development of a stormwater pollution prevention plan.
174	8	EPA	We also recommend the FEIS discuss specific mitigation measures that may be necessary or beneficial in reducing adverse impacts to water quality and aquatic resources.	Chapter 7, Permits, lists the permits potentially required for construction of the Program, including permits relating to construction storm water discharge. Permit requirements would be determined during project-level analysis. Avoidance, minimization, and mitigation measures for reducing potential impacts to water quality and aquatic resources will be determined during project-level analysis. Measures will likely include development of a stormwater pollution prevention plan.

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174	9	EPA	The DEIS states that this service-level DEIS analyzes the environmental effects of route and service type options at the conceptual planning stage only. However, potentially unavoidable adverse effects are identified, as described in Section 5.0 Unavoidable Adverse Effects. The DEIS also states that potential adverse effects can only be generalized at this service level of review, because field studies were not conducted. However, the responsible parties should develop a detailed Construction Emissions Mitigation Plan (Plan) to further enhance the proposed mitigation measures, even at the conceptual stage. EPA recommends that, in addition to all applicable local, state, or federal requirements, the following mitigation measures be considered (as applicable and practicable) in the development of the plan order to reduce air quality impacts associated with emissions of Ox, CO, CO2, PM, S02, and other pollutants from construction-related activities, any planned structural and non-structural activities, and any possible future modifications to the railway/roadway system in the specific project areas: • Construction Emissions Mitigation Plan we recommend the following control measures be considered (as applicable and practicable) in the Construction Emissions Mitigation Plan in order to reduce impacts associated with emissions of particulate matter and other pollutants from construction-related activities: o fugitive Dust Source Controls: We recommend that the plan include these general commitments: • Stabilize heavily used unpaved construction roads with a non-toxic soil stabilizer or soil weighting agent that will not result in loss of vegetation, or increase other environmental impacts. • During grading, use water, as necessary, on disturbed areas in construction sites to control visible plumes. • Vehicle Speed • Limit speeds to 25 miles per hour on stabilized unpaved roads as long as such speeds do not create visible dust emissions. • Limit speeds to 10 miles per hour or less on unpaved areas within construction sites on un-stabilized (and unpaved) roads. • Post visible speed limit signs at construction site entrances. • Inspect and wash construction equipment vehicle tires, as necessary, so they are free of dirt before entering paved roadways, if applicable.	A detailed quantification of construction emissions based on the proposed alignment and station construction will be conducted during project-level analysis. A construction emissions mitigation plan will also be developed as necessary during the project-level analysis and will include applicable and practicable measures for reducing potential impacts associated with emissions of particulate matter and other pollutants from construction-related activities. Additional and revised text capturing the key elements of the recommended mitigation measures has been incorporated into the combined FEIS/ROD Erratta table. However, specific measures related to the Tranportation Plan and the Mobile and Stationary Source Controls have already been provided in Section 3.20, so those measures will not be reflected within the Section 3.1.5 revisions.

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			• Provide gravel ramps of at least 20 feet in length at tire washing/cleaning stations. and ensure construction vehicles exit construction sites through treated entrance roadways, unless an alternative route has been approved by appropriate lead agencies, if applicable. • Use sandbags or equivalent effective measures to prevent run-off to roadways in construction areas adjacent to paved roadways. Ensure consistency with the project's Storm Water Pollution Prevention Plan, if such a plan is required for the project. • Sweep the first 500 feet of paved roads exiting construction sites, other unpaved roads en route from the construction site, or construction staging areas whenever dirt or runoff from construction activity is visible on paved roads, or at least twice daily (less during periods of precipitation). • Stabilize disturbed soils (after active construction activities are completed) with a non-toxic soil stabilizer, soil weighting agent, or other approved soil stabilizing method. • Cover or treat soil storage piles with appropriate dust suppressant compounds and disturbed areas that remain inactive for longer than I0 days. Provide vehicles (used to transport solid bulk material on public roadways and that have potential to cause visible emissions) with covers. Alternatively, sufficiently wet and load materials onto the trucks in a manner to provide at least one foot of freeboard. • Use wind erosion control techniques (such as windbreaks, water, chemical dust suppressants, and/or vegetation) where soils are disturbed in construction, access and maintenance routes, and materials stock pile areas. Keep related windbreaks in place until the soil is stabilized or permanently covered with vegetation. o Mobile and Stationary Source Controls: • Plan construction scheduling to minimize vehicle trips. • Limit idling of heavy equipment to less than 5 minutes and verify through unscheduled inspections. o Administrative controls: • Develop a construction traffic and parking management plan that maintains traffic flow and plan construction to minimize vehicle trips. • Identify any sensitive receptors in the project area, such as children, elderly, and the infirm, and specify the means by which impacts to these populations will be minimized (e.g. locate construction equipment and staging zones away from sensitive receptors and building air intakes). • Include provisions for monitoring fugitive dust in the fugitive dust control plan and initiate increased mitigation measures to abate any visible dust plumes.	
174	10	EPA	Section 7.0 -Permits of the DEIS identifies the permits potentially required for the construction of the Passenger Rail System (Table 7-1 on page 7-1). Please identify whether or not there are any other anticipated permits for smaller scale stationary sources, such as compressors, portable and/or auxiliary units, that may be needed during the construction and operation of the rail system.	Permits required for smaller scale stationary sources would be determined during project-level analysis.
174	11	EPA	Also, even though the DEIS discusses the cities with potential rail stations (in both Oklahoma and Texas), nonattainment and ozone advance areas, and transportation conformity in several sections, it does not appear that the DEIS fully discusses transportation planning issues. For example, the DEIS does not discuss how the Passenger Rail System would be integrated into the transportation Plan for the DFW area and other applicable areas (e.g., Austin-Round-Rock San Marcos Ozone Advance Area). Given the importance and scale of this proposed 850 mile railway system, we recommend that future environmental documentation more fully discuss and clarify the planning aspects of the project for each section of railway (i.e., Northern Section, Central Section and Southern Section).	The Program EIS included preliminary assessment of regional plans as part of developing the Purpose and Need Statements and the development of alternatives. Detailed planning aspects of the project will be discussed at the project-level.

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174	12	EPA	The Tier I DEIS does not include a reasonable consideration of greenhouse gas (GHG) emissions and climate change impacts. EPA recommends that EPA analyses include an estimate of the direct and indirect GHG emissions caused by the proposal, a discussion of the incremental impacts of the estimated GHGs, and an analysis of reasonable alternatives and/or practicable mitigation measures to avoid, reduce, or compensate for GHG emissions caused by the proposal. In addition, CO2 emissions have centuries-long impacts, including global scale changes in ocean acidity, sea level, and mean temperature, as well as changes to local drought and precipitation levels. For purposes of informing decision-makers and the public, EPA recommends this context be provided, and that estimated GHG emissions levels should be used as a general proxy to compare emissions levels from the proposal, alternatives, and potential mitigation. In other words, higher levels of incremental emissions cause higher levels of incremental impacts and risks. EPA recommends that FRA provide a similar analysis for the Texas-Oklahoma Passenger Rail Study that was afforded to the FRA North East Corridor (NEC) Rail Study EIS. This approach would afford consistency among FRA projects. EPA offers for your consideration the following excerpts from the NEC DEIS that discuss GHG and Climate Change. This is an example of the level of analysis we believe should be provided in the Texas-Oklahoma Tier 1 EIS and should be considered to guide you in the analysis process.	A planning level GHG analysis was performed consistent with the program-level of analysis for the remainder of the EIS. The results of this analysis have been added to the EIS.
174	13	EPA	EPA recommends that the FEIS estimate the direct and indirect GHG emissions caused by a proposal and its alternatives. Examples of tools for estimating and quantifying GHG emissions can be found on CEQ's website. These emissions levels can serve as a reasonable proxy for climate change impacts when comparing the alternatives and considering appropriate mitigation measures.	A planning level GHG analysis was performed consistent with the program-level of analysis for the remainder of the EIS. The results of this analysis have been added to the EIS.
174	14	EPA	EPA recommends that EISs describe measures to reduce GHG emissions associated with the project, including reasonable alternatives and appropriate mitigation, and disclose the estimated GHG reductions. The EPA further recommends that the Record of Decision commit to implementation of reasonable mitigation measures that would reduce project-related GHG emissions.	A planning level GHG analysis was performed consistent with the program-level of analysis for the remainder of the EIS. The results of this analysis have been added to the EIS.
174	15	EPA	We recommend including a summary discussion of climate change and ongoing and reasonably foreseeable effects of climate change relevant to the project and the project study area relevant to the proposal, based on U.S. Global Change Research Program assessments in the EIS's "Affected Environment" section. Future climate scenarios included in the assessments can be useful when considering measures to improve the resiliency of the proposal to the impacts of climate change as well as mitigation for potential impacts of the proposal that will be exacerbated by climate change. EPA recommends that consistent with federal policy, the proposal's design incorporate measures to improve resiliency to climate change where appropriate. These changes could be informed by the future climate scenarios addressed in the "Affected Environment" section. The EIS's alternatives analysis should, as appropriate, consider practicable changes to the proposal to make it more resilient to anticipated climate change. Changing climate conditions can affect a proposed project, as well as the project's ability to meet the purpose and need presented in the EIS. One such example would be infrastructure located in coastal regions that may be affected by sea level rise.	A planning level GHG analysis was performed consistent with the program-level of analysis for the remainder of the EIS. The results of this analysis have been added to the EIS.
174	16	EPA	When considering the potential impacts of the proposal, we recommend Federal agencies consider the future climate scenarios in the "Affected Environment" section to determine whether the environmental impacts of the alternatives would be exacerbated by climate change. If impacts may be exacerbated by climate change, additional mitigation measures may be warranted. EPA recommends FRA refer to the August 1, 2016, CEQ Final Guidance For Federal Departments and Agencies on Consideration of Greenhouse Gas Emissions and the Effects of Climate Change in the NEPA Reviews for evaluating these effects on the environment.	A planning level GHG analysis was performed consistent with the program-level of analysis for the remainder of the EIS. The results of this analysis have been added to the EIS. Additional detailed climate change analysis would be performed at the project level.
174	18	EPA	OEJTIA recommends that FRA utilized the Promising Practice Report (16-2016.pdf) to supplement the applicable requirements for considering and analyzing Environmental Justice population for each tier of the project.	As detailed in Section 3.15.7, Subsequent Analysis, a comprehensive and quantitative analysis of potential environmental justice effects will be conducted during project-level analysis consistent with all applicable laws, orders, and guidelines.

Submittal #	Comment #	Commenter Association	Comment	Response
174	19	EPA	OEJITIA recommends that DEIS for appropriate phase/tier of the project incorporates any information and/or comments received from the tribal government-to-government consultations. OEJTIA recommends that discussions be provided on Tribal (Executive Order 13175) impacts and an in-depth explanation for a no impact determination be included in the DEIS.	As detailed in Section 3.15.7, Subsequent Analysis, a comprehensive and quantitative analysis of potential environmental justice effects will be conducted during project-level analysis consistent with all applicable laws, orders, and guidelines.
174	20	EPA	In this DEIS FRA has not identified the Environmental Populations and the actual impacts have not adequately been assessed and OEJTA recommends it be adequately defined and discussed in accordance with Executive Order 12898 and EPA guidance. OEJTIA recommends that all the necessary tools and methods (i.e. EJ Screen, U.S. Census Bureau and area knowledge) be used in identifying the low income and minority population within or near the paran1eter of the project. OEJTA recommends the actual direct, indirect and cumulative impact in its totality to the minority or low-income population be identified and explain concise, but briefly. OEJTA recommends that FRA takes into consideration all the public's comments and selects the alternative that has minimum disproportionately high, adverse human health or environmental effects on minority and low-income populations or individuals and implements adequate mitigation measures. OEJTIA recommends that in the appropriate phase/tier of the project that an in-depth, but brief explanation for a no impact determination be included for the identified Environmental communities along the parameter of the project.	As detailed in Section 3.15.7, Subsequent Analysis, a comprehensive and quantitative analysis of potential environmental justice effects will be conducted during project-level analysis consistent with all applicable laws, orders, and guidelines.
174	21	EPA	We recommend the FEIS discuss how the proposed action would support or conflict with the objectives of federal, state, tribal or local land use plans, policies and controls in the project areas. The term "land use plans" includes all types of formally adopted documents for land use planning, conservation, zoning and related regulatory requirements. Proposed plans not yet developed should also be addressed if they have been formally proposed by the appropriate government body in a written form (CEQ's Forty Questions, #23b).	The service level Program EIS incorporated land use planning information in the development of the Purpose and Need Statement and alternatives and included initial informal consultation with tribes regarding tribal land. As detailed in 3.14.6, Subsequent Analysis, the project level analysis will be required to review and analyze applicable plans to determine consistency of the project with goals, objectives, and policies. Updates to the subsequent analysis discussion will be incorporated including specific reference to reviewing and analyzing consistency with the objectives of federal, state, tribal or local land use plans, policies and controls in the project-level areas. The subsequent analysis will also include consistency evaluations of all types of formally adopted documents for land use planning, conservation, zoning and related regulatory requirements.
175	1	Greater Waco Chamber of Commerce	I am contacting you today to voice my support, and that of my peers, for three (3) of the alternative High Speed rail routes proposed in the Draft Environmental Impact Statement. The C4A, C4B, and C4C High Speed Rail options appear to be ideal for the Central Section as described in the TOPRS. The three preferred routes provide the most expedient route between the North and South Sections.	As detailed in Section 2.3.3, Preferred Alternative, Alternatives C4A and C4B High-Speed Rail were selected as preferred alternatives. Alternative C2B was eliminated during the screening process and was not carried forward for further analysis in the DEIS.
175	2	Greater Waco Chamber of Commerce	Given the speed at which this rail line would operate, coupled with energy and time necessary for acceleration and deceleration, a linearly ideal option, which is Waco, would maximize the benefits of a high speed rail option.	The alternatives evaluated in this EIS have been developed to a level of detail appropriate for a service-level analysis: the route alternatives represent a potential corridor where rail improvements could be implemented, but do not specify the precise location of the track alignment. Route alternatives in the Northern, Central, and Southern sections could be built as individual, stand-alone projects or in combination with alignments in another section. Details on connecting the alternatives would be determined during project-level studies.
175	3	Greater Waco Chamber of Commerce	A Waco stop would serve the rural surrounding counties while still providing an, on average, 45 minute or less commute for Bell County residents and/or Hillsboro residents. In the case of education and young college students. Waco along is home to almost 30,000 such students, and although harder to define, the value of expedient and convenient travel for this audience cannot be overstated. I firmly believe that a stop in Waco, Texas has numerous strategically valid merits.	The EIS did not evaluate specific station locations, and no conclusion about the exact location of stations were made as part of this service-level EIS. However, based on ridership data and transit connectivity information developed as part of the alternatives analysis for this EIS, the cities in which stations could potentially be located have been determined. In some cities, station locations have been assumed for the purposes of the EIS (Table 2-9) but a final decision on exact station locations was not made as part of the EIS. Station location, size, and design will be determined during project-level analysis.

Submittal #	Comment #	Commenter Association	Comment	Response
176	2		An alternate route should be planned that connects Oklahoma first with DFW airport and then with Ft. Worth and Dallas.	The alternatives evaluated in this EIS have been developed to a level of detail appropriate for a service-level analysis: the route alternatives represent a potential corridor where rail improvements could be implemented, but do not specify the precise location of the track alignment. Route alternatives in the Northern, Central, and Southern sections could be built as individual, stand-alone projects or in combination with alignments in another section. Details on connecting the alternatives would be determined during project-level studies.
176	3		The C4C route offers the greatest service to the public and long-term opportunity for fiscal success.	Appendix D - Alternatives Analysis Report state: "The revenue/operating cost ratio, which is a strong indicator of long-term financial feasibility, surpasses 100% for the C4 alignment with strong indicator of long-term financial feasibility, surpasses 100% for the C4 alignment with high-speed service." This indicates that the central Texas area service can be profitable.
176	4		The Dallas connection must maintain interoperability of train sets and interchange with DAL-Houston high speed passengers.	As detailed in the alternatives analysis reports in Appendix C and D, the Program alternatives were developed with consideration of other public transportation improvements planned at the time. Additional and updated details regarding interactions of the prefered alternatives with other potential passenger rail service would be considered during project-level analysis at a future date.
176	5		Exploring cooperation with city governments to insure public transportation will feed passengers to the planned stops on all of the routes.	As detailed in the alternatives analysis reports in Appendix C and D, the Program alternatives were developed with consideration of other public transportation improvements planned at the time. Additional and updated details regarding interactions of the prefered alternatives with other potential passenger rail service would be considered during project-level analysis at a future date.
177	1		Why not fly? Build an alternative, geared towards all passengers including vacationers. Stop in the small towns and people will get on/off.	The purpose of this DEIS is to provide service level analysis on passenger rail service and does not include analysis of other mode choices, such as highway or air travel or other technologies such as hyperloop, which was not considered or evaluated as a viable transportation option.
178	2	Tom Salome Investments	and for designation of Waco as a station location.	The EIS did not evaluate specific station locations, and no conclusion about the exact location of stations were made as part of this service-level EIS. However, based on ridership data and transit connectivity information developed as part of the alternatives analysis for this EIS, the cities in which stations could potentially be located have been determined. In some cities, station locations have been assumed for the purposes of the EIS (Table 2-9) but a final decision on exact station locations was not made as part of the EIS. Station location, size, and design will be determined during project-level analysis.
179	3	Webb County	Of course, we need to make sure that they stop in Laredo, the Port of Laredo, because we have the entryway.	The EIS did not evaluate specific station locations, and no conclusion about the exact location of stations were made as part of this service-level EIS. However, based on ridership data and transit connectivity information developed as part of the alternatives analysis for this EIS, the cities in which stations could potentially be located have been determined. In some cities, station locations have been assumed for the purposes of the EIS (Table 2-9) but a final decision on exact station locations was not made as part of the EIS. Station location, size, and design will be determined during project-level analysis.
179	4	Webb County	supporting the true high-speed rail and the route that goes to Laredo, Texas, not by way of Alice.	More than one alternative in the Central or Southern sections could be built in the future because the alternatives provide service options for different destinations. Alternatives S4 and S6 are assumed to serve two distinctly different areas of the state, and selection of one does not preclude selection of the other. Details on connecting the alternatives would be determined during project-level studies.
179	7		Some questions came up as to why the City of Laredo is not included in it as a proposed route. I know that one of the proposed route is going through Colombia bridge, and personally I think the city could benefit much more if it went through the city as far as commerce, as far as passengers going through the City of Laredo, dropping off, stopping, off, shopping in Laredo, spending money here and the other side of the bridge. I would like to see the existing rail that goes through downtown and the City of Laredo, maybe use that existing route that goes through the City of Laredo, make it above grade and use that as a passenger rail service; and that way you eliminate the problems of all of the traffic being stopped at the rail crossings, and you also have a very beautiful rail passing through the City of Laredo, down in Nuevo Laredo, Monterrey, etc., down all the way to wherever it's going to end.	The alternatives evaluated in this EIS have been developed to a level of detail appropriate for a service-level analysis: the route alternatives represent a potential corridor where rail improvements could be implemented, but do not specify the precise location of the track alignment. This service-level EIS did not evaluate specific station locations, and no conclusion about the exact location of stations were made as part of the service-level EIS process.

Submittal #	Comment #	Commenter Association	Comment	Response
179	9		I believe that it's necessary to have a terminal that's in the city, in the center of the city, whether it's in downtown Laredo or even if it's slightly off by 5 or 6 miles, but certainly not 20 or 30 miles as is what is proposed in the first option.	The EIS did not evaluate specific station locations, and no conclusion about the exact location of stations were made as part of this service-level EIS. However, based on ridership data and transit connectivity information developed as part of the alternatives analysis for this EIS, the cities in which stations could potentially be located have been determined. In some cities, station locations have been assumed for the purposes of the EIS (Table 2-9) but a final decision on exact station locations was not made as part of the EIS. Station location, size, and design will be determined during project-level analysis.
179	10	Laredo Chamber of Commerce	I cannot recall the hearings that were held during 2013. The Chamber of Commerce alone represents 715 active members. That's a huge chunk of the private sector business. There's also about eight other organizations in town that represent different sectors. I think it would have been a good idea to have had a little bit more notice, a little bit more information, and have held a meeting specifically targeted to those groups and get their input. I think it's very, very important that we get feedback from all of the active organizations in town.	As detailed in Section 8.1.4, Regional/Local Coordination, the City of Laredo participated in an agency scoping meeting for the EIS in 2013. The Laredo Chamber of Commerce did not participate in this meeting. Public scoping meetings were also held in Laredo in 2013.
181	1	NCTCOG	This is on behalf of the Regional Transportation Council and the North Central Texas Council of Governments. The Regional Transportation Council and the North Central Texas Council of Governments support implementing a high-speed passenger rail service within and approaching the Dallas/Fort Worth region. Connectivity to other high-speed passenger rail services within the Dallas/Fort Worth region will be vital to providing a high-speed passenger rail network. Additionally, connectivity to other transit modes within the region is critical to the success of a high-speed rail system. The Regional Transportation Council and the North Central Texas Council of Governments encourage the formulation of a recommended alternative to be flexible regarding connection within the Dallas/Fort Worth Region to the other high-speed rail corridors that are under study.	As detailed in the alternatives analysis reports in Appendix C and D, the Program alternatives were developed with consideration of other public transportation improvements planned at the time work on the EIS commenced. Additional and updated details regarding interactions of the prefered alternatives with other potential passenger rail service would be considered during project-level analysis at a future date.
181	2	NCTCOG	The preferred alignment alternatives recommended in this study are not consistent with the adopted Mobility 2040, the Metropolitan Transportation Plan for the North Central Texas Region, which was adopted by the RTC in March of this year. Alternative C4 and C4B are not consistent with the plan at all, while alternative C4C is partially consistent with the plan.	The North Central Texas Council of Governments (NCTCOG) coordinates with cities, counties and transportation partners to plan road, transit, bicycle and pedestrian transportation improvements for North Texas. Mobility 2035 as updated June 2013 was the most recent Mobility document available from NCTCOG at the time conceptual engineering and alternatives analysis was being completed and the advance Administrative DEIS was being generated. Mobility 2040 was adopted by the Regional Transportation Council in March 2016, after work to prepare the DEIS was well underway. At the service level, the proposed alternatives and corresponding alignments should be consistent with the objectives defined with the Mobility 2040 document. Data from the most current Mobility report at the time would be considered during project-level analysis at a future date. The alternatives developed at the service level would not conflict with alternatives NCTCOG may consider at the project level.
181	3	NCTCOG	In addition, the preferred alignment alternatives are not consistent with the RTC's adopted three-station concept and one-seat ride policy they have adopted as part of their transportation plan.	The North Central Texas Council of Governments (NCTCOG) coordinates with cities, counties and transportation partners to plan road, transit, bicycle and pedestrian transportation improvements for North Texas. Mobility 2035 as updated June 2013 was the most recent Mobility document available from NCTCOG at the time conceptual engineering and alternatives analysis was being completed and the advance Administrative DEIS was being generated. Mobility 2040 was adopted by the Regional Transportation Council in March 2016, after work to prepare the DEIS was well underway. At the service level, the proposed alternatives and corresponding alignments should be consistent with the objectives defined with the Mobility 2040 document. Data from the most current Mobility report at the time would be considered during project-level analysis at a future date. The alternatives developed at the service level would not conflict with alternatives NCTCOG may consider at the project level.
181	4	NCTCOG	In reviewing the Draft Environmental Impact Statement, documents and the Tier One Study Process does not accurately recognize the interdependency and the need for coordinating with other high-speed rail environmental documents that are currently being developed. In fact, it appears that the document may be in conflict with the planning and environmental efforts under way for the Dallas-Fort-Worth high-speed rail core service, that the service that would be run between Dallas and Fort Worth. The TOPRS, EIS seems to consider Dallas and Fort Worth as separate regions and discounts the dynamics within our region.	As detailed in the alternatives analysis reports in Appendix C and D, the Program alternatives were developed with consideration of other public transportation improvements planned at the time at the time work on the EIS commenced. Additional and updated details regarding interactions of the prefered alternatives with other potential passenger rail service would be considered during project-level analysis at a future date.

Submittal #	Comment #	Commenter Association	Comment	Response
181	5	NCTCOG	The Regional Transportation Council supports high-speed rail. The RTC has established policies within the Dallas/Fort Worth area to help guide the future high-speed rail systems operations. This includes the interoperability to provide that one-seat ride to, from, and within the Dallas/Fort Worth region to allow for and encourage both inter- and intra-regional high-speed rail connectivity.	As detailed in the alternatives analysis reports in Appendix C and D, the Program alternatives were developed with consideration of other public transportation improvements planned at the time at the time work on the EIS commenced. Additional and updated details regarding interactions of the prefered alternatives with other potential passenger rail service would be considered during project-level analysis at a future date.
181	6	NCTCOG	Additionally, the recent US Department of Transportation request for proposals for high-speed rail development identified Dallas/Fort Worth in connection to San Antonio, Oklahoma City, and Little Rock as a potential singe corridor, not recognizing the interconnectivity of all of these corridors as well as the development of the private segment from Houston to Dallas seems to be a flaw. It appears that the approach being used for high-speed rail is not conducive to the beginnings of a national high-speed rail system.	As detailed in the alternatives analysis reports in Appendix C and D, the Program alternatives were developed with consideration of other public transportation improvements planned at the time at the time work on the EIS commenced. Additional and updated details regarding interactions of the prefered alternatives with other potential passenger rail service would be considered during project-level analysis at a future date.
181	7	Greater Waco Chamber of Commerce	We believe that a robust and multilevel transportation infrastructure system will be necessary to help us continue to move people and goods and services for a 21st century economy. We really must act now to expand and to improve our existing infrastructure. We must be forward thinking and strategic as we plan for the changing needs of our great state, must recognize the realities of demographic changes to come and respond accordingly. Business as usual is an unacceptable response because the changes to come are not usual. We encourage TxDOT and the Commissioners to seek Federal funding for the next phase of study.	As detailed in the alternatives analysis reports in Appendix C and D, the Program alternatives were developed with consideration of other public transportation improvements planned at the time at the time work on the EIS commenced. Additional and updated details regarding interactions of the prefered alternatives with other potential passenger rail service would be considered during project-level analysis at a future date.

Appendix H
Revised DEIS Sections

Executive Summary

Section 3.1.7 Greenhouse Gas and Climate Change

Section 3.5 Natural Ecological Systems and Wildlife

Section 3.7 Threatened and Endangered Species

References

Revised DEIS Section: Executive Summary

Table ES-3: Summary of Resource Effects in the Northern Section

Resource	N4A Conventional
Air Quality	Based on limited construction activities and emissions along with reduced emissions during operation: Negligible (adverse) short-term (construction) and negligible (benefit) long-term regional (operation) effects.
Air Quality – GHG and Climate Change	Beneficial effect (5% reduction)
Threatened and Endangered Species	Sensitive plant species: Potential occurrences[a] of sensitive plant species. Moderate effects during construction and operation. Sensitive Wildlife species: Federally listed and other sensitive wildlife species. Moderate effects during construction and operation. Habitat: Habitat corresponding to sensitive plants and wildlife species potential to occur. Moderate effects during construction and operation.
Recreational Areas and Opportunities	Negligible effects from construction activities and property acquisition. 56 recreational resources.

[a] The finding of a potential occurrence was made when, during the EIS analysis, an identified species or habitat that was reported in the general vicinity of an alternative, such as within one or more counties in which the alternative route was located. At the service level, the analysis did not determine the precise locations of species or habitat, but by virtue of the reported location within the general vicinity of an alternative a finding was made that there may be a potential occurrence of the species or habitat associated with an alternative. This allows the alternatives to be compared based on potential occurrences and provides initial information to be studied in more detail in subsequent project level analysis.

Table ES-4: Summary of Resource Effects in the Central Section by Alternative

Resource	C4A HrSR	C4A HSR	C4B HrSR	C4B HSR	C4C HrSR	C4C HSR
Air Quality	Based on short-term construction emissions and based on operational pollutant emission reductions: Substantial (adverse) short-term (construction) effects and substantial (benefit) long-term regional (operation) effects.		Based on short-term construction emissions and based on a proportional operational relationship (C4A HrSR) pollutant emission reductions: Substantial (adverse) short-term (construction) effects and moderate (benefit) long-term regional (operation) effects.	Based on lower short-term construction emissions and based on operational pollutant emission reductions: Moderate (adverse) short-term (construction) effects and substantial (benefit) long-term regional (operation) effects.	Based on short-term construction emissions and based on a proportional operational relationship (C4A HrSR) pollutant emission reductions: Substantial (adverse) short-term (construction) effects and substantial (benefit) long-term regional (operation) effects.	Based on short-term construction emissions and based on operational pollutant emission reductions: Substantial (adverse) short-term (construction) effects and substantial (benefit) long-term regional (operation) effects.
Air Quality – GHG and Climate Change	Beneficial effect (18% reduction HrSR/20% reduction HSR		N/A[a]	Beneficial effect (18% reduction)	N/A[a]	Beneficial effect (15% reduction)
Threatened and Endangered Species	Sensitive plant species: Potential occurrences of sensitive plant species. Moderate effects during construction and operation. Sensitive wildlife species: Federally listed and other sensitive wildlife		Sensitive plant species: Potential occurrences of sensitive plant species. Moderate effects during construction and operation. Sensitive wildlife species: Federally listed and other sensitive wildlife		Potential occurrences of sensitive plant species. Moderate effects during construction and operation. Federally listed and other sensitive wildlife species. Substantial effect for construction and moderate	

Resource	C4A HrSR	C4A HSR	C4B HrSR	C4B HSR	C4C HrSR	C4C HSR
	species. Substantial effect during construction and moderate effect during operation. Habitat: Habitat corresponding to sensitive plants and wildlife species potential to occur. Moderate effects during construction and operation.		species. Substantial effect for construction and moderate effect for operation. Habitat: Habitat corresponding to sensitive plants and wildlife species potential to occur. Moderate effects during construction and operation.		effect for operation. Habitat corresponding to sensitive plants and wildlife species potential to occur. Moderate effects during construction and operation.	

[a] For this service-level analysis, the travel demand modeling for Alternatives C4B and C4C Higher-Speed Rail was not conducted to the same level of detail, but instead relied upon a proportional relationship based on full travel demand modeling conducted for the C4A High-Speed Rail and C4A Higher-Speed Rail alternatives. Refer to Section 3.20, Travel Demand and Transportation.

Table ES-5: Summary of Resource Effects in the Southern Section by Alternative

Resource	Alternative		
	S4 HrSR	S6 HrSR	S6 HSR
Air Quality	Based on construction and operation of new infrastructure: Substantial (adverse) short-term (construction) and substantial (adverse) long-term regional (operation) effects.	Based on a shorter alignment and a shift in mode choice and lower pollutant emissions: Moderate (adverse) short-term (construction) effects and moderate (adverse) long-term regional (operation) effects.	Based on increased construction activities and use of electrified train engines: Substantial (adverse) short-term (construction) effects and negligible (benefit) long-term regional (operation) effects.
Air Quality – GHG and Climate Change[a]	Negative effect (2% increase)	Negative effect (3% increase)	Negative effect (16% increase)
Threatened and Endangered Species	Sensitive plant species: Federally listed and other sensitive plant species. Substantial effects during construction and moderate effects during operation. Sensitive wildlife species: Federally listed and other sensitive wildlife species. Substantial effects during construction and moderate effects during operation. Habitat: Habitat corresponding to sensitive plants and wildlife species potential to occur. Moderate effects.	Sensitive plant species: Potential occurrences of sensitive plant species. Moderate effects during construction and operation. Sensitive wildlife species: Federally listed and other sensitive wildlife species. Moderate effects during construction and operation. Habitat: Habitat corresponding to sensitive plants and wildlife species potential to occur. Moderate effects during construction and operation.	

Resource	Alternative		
	S4 HrSR	S6 HrSR	S6 HSR
Recreational Areas and Opportunities[b]	Highest number of recreational resources compared to S6, but effects reduced because of greater use of existing rail right-of-way. Moderate effects from construction activity and property acquisition and operation. 54 recreational resources: 38 in urban, 4 in suburban, 12 in rural areas.	Fewest number of recreational resources compared to S4 HrSR. Moderate effects from construction activity, property acquisition and operation. 3 recreational resources: 1 in urban, 0 in suburban, 2 in rural areas.	

[a] All build alternatives in the Southern Section would have higher GHG emissions in 2035 compared to No Build Alternative, partially due to the conservative assumptions made in the travel demand modeling for the Southern Section. Build Alternatives in the Southern Section would have net GHG emission increases compared to No Build Alternative, primarily due to the addition of the new rail transportation mode that did not previously exist in the region. However, the levels of GHG reduction in the Northern and Central Section alternatives are greater than the levels of GHG increases estimated for the Southern Section alternatives. When GHG emissions from the Build Alternatives in the Northern, Central, and Southern Sections are combined and compared to the combined emissions from the No Build Alternative, the results indicate that the Program would result in a net GHG emission reduction in 2035.

[b] The most intense effect for each alternative is presented in the table. However, some alternatives may include additional less intense effects depending on urban, suburban, or rural locations.

Revised DEIS Section: 3.1.7 Greenhouse Gas and Climate Change

3.1.7 Greenhouse Gas and Climate Change

Currently, there are no applicable quantitative GHG emission thresholds to determine the significance of GHG and climate change impacts of the Program alternatives. Rather, significance determinations are largely left to the discretion of lead agencies. For this evaluation, the change in GHG emissions associated with each of the Build Alternatives (relative to the No Build Alternative) are reported, along with general conclusions regarding the environmental benefits or effects of the alternatives. USEPA's comment letter recommends the analysis of reasonable alternatives and/or practicable mitigation measures to avoid, reduce, or compensate for GHG emissions caused by the Program, as well as inclusion of design measures to improve resiliency to climate change, where appropriate.

3.1.7.1 Program GHG Emissions

3.1.7.1.1 GHG Emissions Overview

GHG emissions would be generated during construction phases of the Program, due to the use of construction equipment and vehicles. Construction-related GHG emissions would be proportional to the proposed use of existing or modified railroad track, proposed length of new rail line, number of grade separations, and number and size of new or improved existing facilities (depending on the alternative) needed to support the rail operation. Therefore, the alternatives with shorter alignments, smaller right-of-way footprints, and/or using existing infrastructure and alignments would result in lower GHG emissions. Because construction activities for the rail and supporting facilities vary with project-specific design information for each of the proposed alternatives, construction-related GHG emissions were not quantified at the service-level, but would be further evaluated at the project-level in the future when more detailed project-specific information becomes available. Relative levels and qualitative effects of construction-related GHG emissions described for each Alternative would be comparable to those for other air pollutants, as discussed in Sections 3.1.4.2 through 3.1.4.5 of the DEIS.

GHG emissions from the operation of the Program would result from fossil fuel combustion in vehicles, diesel trains, and power plants that provide electricity for high speed trains and other power demands. Potential changes in GHG emissions that would result from implementation of the Program Alternatives were quantified for the same sources and other travel modes including air travel in the region as identified in Section 3.1.2.1 of the DEIS.

For each Alternative, operational GHG emissions from train locomotives, vehicles, airplanes, and power generation were calculated for the 2013 existing condition and the 2035 No Build and Build alternatives, with the exception of two Alternatives, i.e., C4B Higher-Speed Rail and C4C Higher-Speed Rail. The traffic demand modelling for these two alternatives was not performed at the same level as for other alternatives, therefore, GHG emissions for these two alternatives were not quantified. Table 3.1-5 provides a summary of the estimated GHG emissions for each Alternative,

as carbon dioxide equivalents (CO_2e), in tons/year. Detailed GHG emission calculations and assumptions are in Attachment A.

Table 3.1-5. GHG Emissions as CO_2e (tons/year)

Alternative	2013 Existing	2035 No Build	2035 Build	Emission Change /percent change (Build vs Existing)	Emission Change (Build vs No Build)
Northern Section					
N4A	620,028	596,496	567,007	-53,021 / -9%	-29,489 / -5%
Central Section					
C4A HrSR	620,967	938,290	771,336	150,370 / 24%	-166,954 / -18%
C4A HSR	592,858	990,848	796,652	203,795 / 34%	-194,196 / -20%
C4B HSR	597,907	957,349	788,793	190,887 / 32%	-168,556 / -18%
C4C HSR	594,445	987,945	835,182	240,737 / 40%	-152,764 / -15%
Southern Section					
S4 HrSR	1,227,199	2,409,393	2,454,747	1,227,548 / 100%	45,354 / 2%
S6 HrSR	246,279	246,127	253,079	6,800 / 3%	6,952 / 3%
S6 HSR	246,279	246,127	285,341	39,062 / 16%	39,214 / 16%

Note:

CO_2e emission data in this table corrects and replaces the CO_2 emission data in Table 3.1-3 of the DEIS.

Table 3.1-5 shows that GHG emissions estimated for all the build alternatives in 2035 in the Northern and Central Sections would be lower than those for the No Build alternative, due to the increase of ridership, decrease in regional vehicle miles travelled (VMT), and reduced train travel time. Reductions also would occur due to predicted shifts in travel mode choice from bus and aircraft to passenger rail, the use of electric-powered trains, and reduced fuel consumption due to increased train travel speed. Build alternatives in the Southern Section would have higher GHG emissions in 2035 compared to the No Build Alternative, partially due to the conservative assumptions made in the travel demand modeling for the Southern Section.

For each Alternative, GHG emissions from the Program Build alternatives in 2035 would be greater than the 2013 existing condition, except the N4C Alternative. The increases in GHG emissions for the No Build and Build alternatives relative to the 2013 existing condition are mostly due to regional growth not related to the Program, and the associated increases in VMT and number of train trips.

Because GHG emission changes between the existing condition and the Program alternatives are due to a combination of factors that are related to the Program, such as increased ridership, and factors that are not related to the Program, such as regional growth, comparisons of Program alternatives to the existing condition was not adequate to evaluate the net GHG effects of the Program. Therefore, the analysis of the potential GHG effects of the Program focused on the

incremental difference in estimated GHG emissions for the Build and the No Build Alternatives in 2035.

3.1.7.1.2 No Build

For each Alternative, GHG emissions estimated for the No Build Alternative in 2035 took into account the increases in VMT and number of train trips to meet the demand of regional growth, assuming that the Program would not be implemented. For each Alternative, GHG emissions estimated for the No Build Alternative in 2035 were used to evaluate the incremental GHG emission increases that would be associated with the Program build alternatives.

3.1.7.1.3 Northern Section: Oklahoma City to Dallas and Fort Worth

GHG emissions estimated for the Build alternative in 2035 in the Northern Section (Alternative N4A) would be lower than those for the No Build Alternative, due to the increase of ridership, decrease in regional VMT, and reduced train travel time. Additional details for Alternative N4A are provided in the following sections.

Alternative N4A Conventional Rail

GHG emissions associated with each type of travel mode in the Northern Section are presented in Table 3.1-6. Relative to the No Build Alternative, Alternative N4A in 2035 would result in lower GHG emissions from personal vehicles due to increased ridership and reduced VMT. Although Alternative N4A would still use diesel locomotives for the trains in 2035, it would result in lower GHG emissions from train travel due to increased train speeds and reduced train travel times, compared to the No Build scenario. Implementation of Alternative N4A would result in an overall net GHG emission reduction in 2035 of over 29,000 tons CO_2e per year, or a 5 percent reduction from the No Build Alternative, and thus would be beneficial to the environment.

Table 3.1-6. Operational GHG Emissions - Alternative N4A (ton/year of CO2e)

Category	2035 No Build	2035 Build	Emission change (Build vs No Build)
Auto	522,489	519,436	-3,053
Bus	1,287	1,287	0
Airplane	21	21	0
Rail - Electric	NA	NA	NA
Rail - Diesel	72,699	46,263	-26,436
Total	**596,496**	**567,007**	**-29,489**
		% Change of the Total GHG Emissions	**-5%**

Note: CO_2e emissions in this table corrects and replaces the CO_2 emission data for Alternative N4A in the Summary Tables of Appendix A of the DEIS.
NA: not applicable

3.1.7.1.4 Central Section: Dallas and Fort Worth to San Antonio

For all Central Section alternatives, GHG emissions estimated for the Build alternatives would be lower than those for the No Build Alternative, due to the increase of ridership, decrease in regional VMT, and reduced train travel time. Lower GHG emissions in 2035 would result in a benefit to the environment. Results for four alternatives in the Central Section (Alternatives C4A HRSR, C4A HSR, C4B HSR, and C4C HSR) are discussed in the following sections.

Alternative C4A Higher–Speed Rail

Alternative C4A Higher-Speed Rail (C4A HrSR) would result in lower GHG emissions from personal vehicles due to increased ridership and reduced VMT in the Central Section, relative to the No Build Alternative. Although Alternative C4A HrSR would still use diesel locomotives for the trains in 2035, it would result in lower GHG emissions from train travel due to increased train speeds, higher efficiency Tier 4 diesel locomotive engines and reduced train travel times, compared to the No Build Alternative. As shown in Table 3.1-7, the regional reduction in emissions in 2035 associated with the C4A HrSR build alternative would be approximately 167,000 tons per year of CO_2e, or 18 percent, compared to the No Build scenario, and thus would be beneficial to the environment.

Table 3.1-7. Operational GHG Emissions - Alternative C4A Higher-Speed Rail (ton/year of CO2e)

Category	2035 No Build	2035 Build	Emission change (Build vs No Build)
Auto	719,842	697,243	-22,599
Bus	7,695	7,695	0
Airplane	309	309	0
Rail - Electric	NA	NA	NA
Rail - Diesel	210,445	66,090	-144,355
Total	**938,290**	**771,336**	**-166,954**
	% Change of the Total GHG Emissions		**-18%**

Note: CO_2e emissions in this table corrects and replaces the CO_2 emission data for Alternative C4A Higher-Speed Rail in the Summary Tables of Appendix A of the DEIS.

NA: not applicable

Alternative C4A High-Speed Rail

Relative to the No Build Alternative, Alternative C4A High-Speed Rail (C4A HSR) would result in lower GHG emissions from personal vehicles due to increased ridership and reduced VMT in the Central Section. This alternative would use electric-powered trains by 2035, so future GHG emissions associated with rail travel would be reduced, relative to the No Build scenario. Implementation of Alternative C4A HSR would result in an overall net GHG emission reduction in 2035 of over 194,000 tons CO_2e per year, or a 20 percent reduction from the No Build Alternative, as shown in Table 3.1-8. This alternative would be beneficial to the environment.

Table 3.1-8. Operational GHG Emissions - Alternative C4A High-Speed Rail (ton/year of CO2e)

Category	2035 No Build	2035 Build	Emission change (Build vs No Build)
Auto	702,252	642,088	-60,163
Bus	7,695	7,695	0
Airplane	309	309	0
Rail - Electric	0	146,561	146,561
Rail - Diesel	280,594	0	-280,594
Total	**990,848**	**796,652**	**-194,196**
		% Change of the Total GHG Emissions	**-20%**

Note: CO_2e emissions in this table corrects and replaces the CO_2 emission data for Alternative C4A High-Speed Rail in the Summary Tables of Appendix A of the DEIS.
NA: not applicable

GHG emissions that would result from power generation for the electric trains were estimated based on data from 2012 in USEPA's Emissions & Generation Resource Integrated Database (eGRID). The GHG emission factors did not take into account the GHG reduction measures that will be implemented by power plants in future years, and the renewable energy goal set by the states. In Texas, in 1999, the Public Utility Commission of Texas (PUCT) adopted the Goal for Renewable Energy (P.U.C. Substantive Rule 25.173). The Goal for Renewable Energy establishes the state's renewable portfolio standard (RPS) and mandates 5,000 megawatts (MW) of new renewables be installed in Texas by 2015, with a target of 10,000 MW of renewable energy capacity by 2025. Therefore, GHG emissions from power generation are expected to decrease in future years as more electricity is generated from renewable sources. As a result, the future GHG emission reductions associated with use of trains powered by electricity rather than diesel may be even greater than those estimated for this alternative.

Alternative C4B Higher-Speed Rail

For this service-level analysis, the travel demand modeling for Alternative C4B Higher-Speed Rail (C4B HrSR) was not conducted at the same level of detail as for Alternative C4A HrSR, but instead relied upon a proportional relationship based on full travel demand modeling conducted for the C4A HrSR scenarios, as discussed in Section 3.1 4.4.3 of the DEIS. Alternative C4B HrSR would use diesel trains during operation. The GHG emissions for Alternative C4B HrSR would be reduced compared to the No Build Alternative, similar to C4A HrSR, but the reduction would be slightly less than that for C4A HrSR, due to the shorter alignment and relatively fewer vehicles being removed from the road.

Alternative C4B High-Speed Rail

Relative to the No Build, Alternative C4B High-Speed Rail (C4B HSR) would result in lower GHG emissions from personal vehicles due to increased ridership and reduced VMT in the Central

Section. Implementation of Alternative C4B HSR in the Central Section would result in an overall net GHG emission reduction in 2035 of approximately 169,000 tons CO_2e per year, or 18 percent, compared to the No Build Alternative, as shown in Table 3.1-9. As discussed earlier, GHG emissions from power generation are expected to decrease in future years as more electricity is generated from renewable sources. As a result, the future GHG emission reductions associated with the use of trains powered by electricity rather than diesel may be even greater than those estimated for this alternative.

Table 3.1-9. Operational GHG Emissions - Alternative C4B High-Speed Rail (ton/year of CO2e)

Category	2035 No Build	2035 Build	Emission change (Build vs No Build)
Auto	703,826	639,168	-64,659
Bus	7,695	7,695	0
Airplane	309	309	0
Rail - Electric	0	141,623	141,623
Rail - Diesel	245,520	0	-245,520
Total	957,349	788,793	-168,556
		% Change of the Total GHG Emissions	**-18%**

Note: CO_2e emissions in this table corrects and replaces the CO_2 emission data for Alternative C4B High-Speed Rail in the Summary Tables of Appendix A of the DEIS.
NA: not applicable

Alternative C4C Higher-Speed Rail

For this service-level analysis, the travel demand modeling for Alternative C4C Higher-Speed Rail (C4C HrSR) was not conducted at the same level of detail as for C4A HrSR, but instead relied upon a proportional relationship based on full travel demand modeling conducted for AlternativeC4A HrSR, as discussed in Section 3.1 4.4.5 of the DEIS. The GHG emissions for Alternative C4C HrSR would be reduced compared to the No Build Alternative, similar to Alternative C4A HrSR, but the reduction would be slightly greater than that for Alternative C4A HrSR, due to the longer alignment and more vehicles removed from the road.

Alternative C4C High-Speed Rail

Relative to the No Build Alternative, Alternative C4C High-Speed Rail (C4C HSR) would result in lower GHG emissions from personal vehicles due to increased ridership and reduced VMT in the Central Section. Implementation of Alternative C4C HSR in the Central Section would result in an overall net GHG emission reduction in 2035 of approximately 153,000 tons CO_2e per year, or 15 percent, compared to the No Build Alternative, as shown in Table 3.1-10. As discussed earlier, GHG

emissions from power generation are expected to decrease in future years as more electricity is generated from renewable sources. As a result, the future GHG emission reductions associated with use of trains powered by electricity rather than diesel may be even greater than those estimated for this alternative.

Table 3.1-10. Operational GHG Emissions - Alternative C4C High-Speed Rail (ton/year of CO2e)

Category	2035 No Build	2035 Build	Emission change (Build vs No Build)
Auto	699,348	648,756	-50,592
Bus	7,695	7,695	0
Airplane	309	309	0
Rail - Electric	0	178,422	178,422
Rail - Diesel	280,594	0	-280,594
Total	**987,945**	**835,182**	**-152,764**
		% Change of the Total GHG Emissions	**-15%**

Note: CO_2e emissions in this table corrects and replaces the CO_2 emission data for Alternative C4C High-Speed Rail in the Summary Tables of Appendix A of the DEIS.
NA: not applicable

3.1.7.1.5 Southern Section: San Antonio to South Texas

All build alternatives in the Southern Section would have higher GHG emissions in 2035 compared to No Build Alternative, partially due to the conservative assumptions made in the travel demand modeling for the Southern Section. Build Alternatives in the Southern Section would have net GHG emission increases compared to No Build Alternative, primarily due to the addition of the new rail transportation mode that did not previously exist in the region. Although there would be a reduction in personal VMT and the associated emissions in the Southern Section under the Build Alternatives, the GHG emission decreases associated with the VMT reductions would not be sufficient to fully offset the emissions increases associated with the Build Alternatives. The future GHG emissions estimates for the Build Alternatives in the Southern Section may be less than reported, because the potential GHG decreases associated with changes in other travel modes, such as airplanes and buses, were not analyzed in the travel demand model.

Alternative S4 Higher-Speed Rail

Relative to the No Build Alternative, Alternative S4 Higher-Speed Rail (S4 HrSR) would result in higher GHG emissions. Implementation of Alternative S4 HrSR in the Southern Section would result in an overall net GHG emission increase in 2035 of approximately 45,000 tons CO_2e per year, or 2 percent, compared to the No Build Alternative, as shown in Table 3.1-11. The primary reason for the increase would be use of diesel fuel to power trains in the Southern Section, where trains did not previously exist.

Table 3.1-11. Operational GHG Emissions - Alternative S4 Higher-Speed Rail (ton/year of CO2e)

Category	2035 No Build	2035 Build	Emission change (Build vs No Build)
Auto	2,401,213	2,396,478	-4,735
Bus	8,180	8,180	0
Airplane	NA	NA	NA
Rail - Electric	NA	NA	NA
Rail - Diesel	NA	50,089	50,089
Total	**2,409,393**	**2,454,747**	**45,354**
	% Change of the Total GHG Emissions		**2%**

Note: CO_2e emissions in this table corrects and replaces the CO_2 emission data for Alternative S4 Higher-Speed Rail in the Summary Tables of Appendix A of the DEIS.
NA: not applicable

Alternative S6 Higher-Speed Rail

Relative to the No Build Alternative, Alternative S6 Higher-Speed Rail (S6 HrSR) would result in slightly higher GHG emissions. Implementation of Alternative S6 HrSR in the Southern Section would result in an overall net GHG emission increase in 2035 of approximately 7,000 tons CO_2e per year, or 3 percent, compared to the No Build Alternative, as shown in Table 3.1-12. The primary reason for the increase would be use of diesel fuel to power trains in the Southern Section, where trains did not previously exist.

Table 3.1-12. Operational GHG Emissions - Alternative S6 Higher-Speed Rail (ton/year of CO2e)

Category	2035 No Build	2035 Build	Emission change (Build vs No Build)
Auto	242,345	231,731	-10,614
Bus	3,782	3,782	0
Airplane	NA	NA	NA
Rail - Electric	NA	NA	NA
Rail - Diesel	NA	17,566	17,566
Total	**246,127**	**253,079**	**6,952**
	% Change of the Total GHG Emissions		**3%**

Note: CO_2e emissions in this table corrects and replaces the CO_2 emission data for Alternative S6 Higher-Speed Rail in the Summary Tables of Appendix A of the DEIS.
NA: not applicable

Alternative S6 High-Speed Rail

Relative to the No Build Alternative, Alternative S6 High-Speed Rail (S6 HSR) would result in higher GHG emissions. Implementation of Alternative S6 HSR in the Southern Section would result in an overall net GHG emission increase in 2035 of over 39,000 tons CO_2e per year, or 16 percent in comparison to No Build, as shown in Table 3.1-13. S6 High-Speed Rail would have higher GHG emissions from operating the trains in comparison to the S6-Higher-Speed Rail due to the increased number of train trips.

The primary reason for the increase would be electricity generated to power trains in the Southern Section, where trains did not previously exist. As discussed earlier, GHG emissions from power generation are expected to decrease in future years as more electricity is generated from renewable sources. As a result, the future GHG emissions associated with use of electrically-powered trains may be less than those estimated for this alternative.

Table 3.1-13. Operational GHG Emissions - Alternative S6 High-Speed Rail (ton/year of CO2e)

Category	2035 No Build	2035 Build	Emission change (Build vs No Build)
Auto	242,345	228,033	-14,313
Bus	3,782	3,782	0
Airplane	NA	NA	NA
Rail - Electric	NA	53,527	53,527
Rail - Diesel	NA	NA	NA
Total	246,127	285,341	39,214
	% Change of the Total GHG Emissions		**16%**

Note: CO_2e emissions in this table corrects and replaces the CO_2 emission data for Alternative S6 High-Speed Rail in the Summary Tables of Appendix A of the DEIS.

NA: not applicable

3.1.7.1.6 GHG Emissions Conclusions

GHG emissions estimated for all the Build Alternatives in 2035 in the Northern and Central Sections would be lower than those for the No Build Alternative, due to the increase of ridership, decrease in regional VMT, and reduced train travel time. Reductions also would occur due to predicted shifts in travel mode choice from bus and aircraft to passenger rail, the use of electric powered trains, and reduced fuel consumption due to increased train travel speed. Build alternatives in the Southern Section would have higher GHG emissions in 2035 compared to the No Build Alternative, partially due to the conservative assumptions made in the travel demand modeling for the Southern Section. However, the levels of GHG reduction in the Northern and

Central Section alternatives are greater than the levels of GHG increases estimated for the Southern Section alternatives. When GHG emissions from the Build Alternatives in the Northern, Central, and Southern Sections are combined and compared to the combined emissions from the No Build Alternative, the results indicate that the Program would result in a net GHG emission reduction in 2035. Therefore, the Program would be beneficial to the environment.

3.1.7.2 Climate Change and Adaptation

Global climate change is expressed as changes in the average weather of the earth that are measured by temperature, wind patterns, precipitation, and storms over a long period of time [United Nations Intergovernmental Panel on Climate Change (IPCC), 2013]. Over time, scientific understanding of the causes and effects of climate change, and consensus regarding the link between climate change and anthropogenic GHG emissions has increased tremendously.

The IPCC now states that the warming of the climate system is "unequivocal", "…human influence on the climate system is clear…", "…it is extremely likely that human influence has been the dominant cause of the observed warming since the mid-20th century", and "Continued emissions of greenhouse gases will cause further warming and changes in all components of the climate system." (IPCC, 2013). The most recent U.S. National Climate Assessment explains that, "While scientists continue to refine projections of the future, observations unequivocally show that climate is changing and that the warming of the past 50 years is primarily due to human-induced emissions of heat-trapping gases", and that "Global climate is projected to continue to change over this century and beyond, but there is still time to act to limit the amount of change and the extent of damaging impacts." (U.S. Global Change Research Program, 2014). The USEPA states that, "Greenhouse gas (GHG) pollution threatens the American public's health and welfare by contributing to long-lasting changes in our climate that can have a range of negative effects on human health and the environment. The impacts could include: longer, more intense and more frequent heat waves; more intense precipitation events and storm surges; less precipitation and more prolonged drought in the West and Southwest; more fires and insect pest outbreaks in American forests, especially in the West; and increased ground level ozone pollution, otherwise known as smog, which has been linked to asthma and premature death" (USEPA, 2014).

3.1.7.2.1 Climate Change Trends in Texas and Oklahoma

The accumulation of GHGs in the atmosphere influences the long-term range of average atmospheric temperatures and contributes to global climate change. Increases in GHG emissions and atmospheric GHG concentrations contribute to changes in the global climate and weather events, which can lead to flooding, storm surges, and extreme temperatures.

The U.S. annually averaged temperature has increased by 1.3°F to 1.9°F since record keeping began in 1895; most of this increase has occurred since about 1970. The most recent decade was the nation's warmest on record. Temperatures in the United States are expected to continue to rise (USGCRP, 2014). The Southern Plains which include Texas are projected to experience more

extreme heat, with four times the number of days over 100°F than is currently experienced in the area. In the eastern two-thirds of Texas, average annual rainfall is increasing, yet the soil is becoming drier. In the coming decades, storms and floods are likely to become more severe, deserts may expand, and summers are likely to become increasingly hot and dry (USEPA, 2016a).

Along much of the coast in the U.S., the sea is rising almost two inches per decade. Sea level is rising more rapidly along the Texas coast. If the oceans and atmosphere continue to warm, sea level is likely to rise two to five feet in the next century along much of the Texas coast (USEPA, 2016b).

Oklahoma has experienced record-breaking heat, increased drought, and a slight increase in extreme weather events in recent years. In Oklahoma, rainfall has become more unpredictable, swinging back and forth between extreme drought and intense downpours. Climate records show trends of long droughts, some lasting decades, followed by intense flooding. As global temperatures continue to rise, Oklahoma is expected to experience more heat waves and both floods and droughts may be more severe (SCIPP, 2016)

3.1.7.2.2 Potential Climate Change Effects on the Program

Changes in climate and average weather conditions may lead to extreme temperatures (heat waves and cold snaps), more-intense and more-frequent storms, flooding, and rising sea levels that may worsen existing weather-related rail problems and create new hazards for rail asset owners and operators. Some of these potential effects are discussed below.

Extreme Temperature Effects on Rail Infrastructure: Fluctuating temperatures or long periods of high temperature place additional stress on transportation infrastructure, such as rail corridors. When rails are exposed to prolonged periods of heat or cold temperatures, they may crack, buckle, break, pull apart or separate, resulting in service disruption and delays. Overheated electrical equipment, overheated vehicles, or failed air conditioning systems affect rail service and pose threats to customer and worker health and safety. Heavy snowfall blocks rail lines, and ice reduces equipment function and may result in rail or equipment damage.

Severe Storms and Flooding: Severe weather and precipitation affect transportation infrastructure, and potential changes in precipitation could increase future effects. Extreme storm events may lead to restriction of service and damage to rail infrastructure and equipment, potentially shortening infrastructure and equipment life. Severe precipitation and wind speeds can damage bridges, signs, and other tall structures. Storm surge can damage and destroy rail lines and equipment in coastal areas. More frequent and severe flooding of underground tunnels and low-lying infrastructure requires drainage and pumping and increases operation and maintenance costs.

Sea Level Rise: The Southern Section of the Program would have rail elements closer to coastal areas at risk from sea level rise, flooding, and coastal storm surge. Rising sea level can present flooding risks to underground infrastructure such as tunnels, allowing water to enter through

portals and ventilation shafts. Where the sea level rises, coastlines will change and infrastructure that was not previously at risk to storm surge and wave damage may be exposed. The routes closer to the coast would have higher risks of damage or inundation from these flooding mechanisms.

3.1.7.2.3 Potential Adaptation Strategies

Understanding that the effects of climate change may continue to worsen, it is important to consider how to make improvements to the existing and new rail infrastructure that can better withstand the potential effects of inundation and extreme weather events. "Adaptation strategies" refer to how project stakeholders can plan for the effects of climate change on rail transportation infrastructure and strengthen or protect the facilities from damage. Climate change effects will vary by location and may, in the most extreme cases, require that a facility be relocated or redesigned. There may also be economic and strategic ramifications as a result of these types of impacts to the transportation infrastructure. This section provides an overview of potential adaptation strategies that could be considered during future stages of development of the Program.

The earlier that adaptation approaches are considered in the infrastructure planning and design process, the lower the relative cost and potential disruption associated with implementing the changes. For example, the marginal cost of building an embankment to a higher elevation when it is first built is significantly cheaper, and less disruptive, than increasing the height of an existing embankment and the assets it supports.

Multiple approaches can be used to adapt rail service, equipment, and infrastructure to future climate change, and therefore minimize the risk of sea level rise, flood, and extreme temperature-related impacts to the Program. Typical actions would include, but would not be limited to, the following (DOT and FHWA, 2015):

- Investigations – Specialist assessments and explorations of individual assets, specific issues, and solutions (e.g., flood modeling of specific locations to determine likely future risk related to flooding)
- Policy – Changes to policies, standards and guidelines (e.g., design and maintenance specifications or adjust standards relating to rail neutral temperatures to ensure projected increases in temperature are considered over time)
- Behavioral – Adjustments to existing processes, operational systems and procedures (e.g., emergency management plans) or refining the process for determining go-slow orders (e.g., the revised Amtrak approach to improved predictions)
- Physical – Physically engineered solutions (e.g., ensuring the design of assets consider the identified risks, particular flood risk – location, elevation, or protective barriers, use of concrete ballast and continuous tension catenary wires, or relocation of the tracks)

3.1.7.3 Subsequent Analysis

At the service-level, detailed analysis of microscale effects of climate change was not performed. Key actions to be undertaken as part of future project-level analysis and design will include, but not be limited to, the following:

- Review the latest climate science trends for any applicable updates to the projections and/or trends
- Undertake targeted modeling of site-specific riverine and coastal flood potential
- Undertake joint probability riverine and coastal flood analysis
- Consider additional interim sea level rise scenarios (e.g., between 1 foot and 6 feet) to better quantify the timing of the risk and prioritization of improvements
- Consider increasing levels of coastal storm surge intensity (as the science progresses), or larger coastal storm surge events (e.g., 500-year event)
- Incorporate adaptation considerations into design to minimize risk exposure and increase ability to recover from extreme events
- Incorporate consideration of adaptation costs (i.e., more resilient infrastructure) as well as increased maintenance costs and service disruptions associated with likely increased flooding and extreme heat effects

The above analysis may be guided by the Federal Highway Administration's Virtual Framework for Vulnerability Assessment (DOT and FHWA, 2015). In addition, consideration should be given to the Revised Guidelines for Implementing Executive Order 11988, Floodplain Management (FEM, 2015).

Future analysis will describe measures to reduce GHG emissions associated with the Program at the project level, including reasonable alternatives and project design features that make the project resilient to climate variability and change.

Attachment A
Greenhouse Gas Emission Calculations and Assumptions

GHG Emissions Summary

		2,013	2035 No Build	Build 2035	Emission change (Build vs Existing)	Emission change (Build vs No Build)
		CO2e (ton/year)	CO2e (ton/year)	CO2e (ton/year)	CO2e (ton/year)	CO2e (ton/year)
N4A	Auto	545,964	522,489	519,436	-26,528	-3,053
	Bus	1,344	1,287	1,287	-57	0
	Airplane	21	21	21	0	0
	Rail - Electric	0	0	0	0	0
	Rail - Diesel	72,699	72,699	46,263	-26,436	-26,436
	Total	620,028	596,496	567,007	-53,021	-29,489
C4A HSR	Auto	566,978	702,252	642,088	75,110	-60,163
	Bus	8,033	7,695	7,695	-338	0
	Airplane	309	309	309	-1	0
	Rail - Electric	0	0	146,561	146,561	146,561
	Rail - Diesel	17,537	280,594	0	-17,537	-280,594
	Total	592,858	990,848	796,652	203,795	-194,196
C4AHrSR	Auto	595,087	719,842	697,243	102,156	-22,599
	Bus	8,033	7,695	7,695	-338	0
	Airplane	309	309	309	-1	0
	Rail - Electric	0	0	0	0	0
	Rail - Diesel	17,537	210,445	66,090	48,553	-144,355
	Total	620,967	938,290	771,336	150,370	-166,954
C4B HSR	Auto	572,027	703,826	639,168	67,140	-64,659
	Bus	8,033	7,695	7,695	-338	0
	Airplane	309	309	309	-1	0
	Rail - Electric	0	0	141,623	141,623	141,623
	Rail - Diesel	17,537	245,520	0	-17,537	-245,520
	Total	597,907	957,349	788,793	190,887	-168,556
C4C HSR	Auto	568,565	699,348	648,756	80,191	-50,592
	Bus	8,033	7,695	7,695	-338	0
	Airplane	309	309	309	-1	0
	Rail - Electric	0	0	178,422	178,422	178,422
	Rail - Diesel	17,537	280,594	0	-17,537	-280,594
	Total	594,445	987,945	835,182	240,737	-152,764
S4 HrSR	Auto	1,218,661	2,401,213	2,396,478	1,177,817	-4,735
	Bus	8,539	8,180	8,180	-359	0
	Airplane	0	0	0	0	0
	Rail - Electric	0	0	0	0	0
	Rail - Diesel	0	0	50,089	50,089	50,089
	Total	1,227,199	2,409,393	2,454,747	1,227,548	45,354
S6 HrSR	Auto	242,331	242,345	231,731	-10,600	-10,614
	Bus	3,948	3,782	3,782	-166	0
	Airplane	0	0	0	0	0
	Rail - Electric	0	0	0	0	0
	Rail - Diesel	0	0	17,566	17,566	17,566
	Total	246,279	246,127	253,079	6,800	6,952
S6 HSR	Auto	242,331	242,345	228,033	-14,299	-14,313
	Bus	3,948	3,782	3,782	-166	0
	Airplane	0	0	0	0	0
	Rail - Electric	0	0	53,527	53,527	53,527
	Rail - Diesel	0	0	0	0	0
	Total	246,279	246,127	285,341	39,062	39,214

Notes

1) Assume No build and existing rail are all diesel fueled trains.

2) Southern options are in some cases projected to be higher emissions for some pollutants for the build options due to no rail or airplane travel in the existing scenario or that which will be used in the future No Build Scenario.

Table A-1 Central Section Passenger Vehicle Emissions 2013 and 2035 (tons/yr)

	Scenario	VMT[1] (mi)	CO2	CH4	CO2e
C4Ahsr	Auto Existing 2013	1,348,987,339.03	566,737.36	9.76	566,978
	Auto No Build 2035	2,742,367,985.49	702,130.61	4.85	702,252
	Auto C4A True High 2035	2,507,423,895.17	641,977.69	4.44	642,088
C4Ah	Auto Existing 2013	1,415,866,197.29	594,834.55	10.25	595,087
	Auto No Build 2035	2,811,060,424.80	719,717.98	4.98	719,842
	Auto C4A Higher 2035	2,722,809,840.23	697,123.12	4.82	697,243
C4Bhsr	Auto Existing 2013	1,361,000,146.42	571,784.19	9.85	572,027
	Auto No Build 2035	2,748,517,875.66	703,705.17	4.87	703,826
	Auto C4B True High 2035	2,496,018,504.59	639,057.56	4.42	639,168
C4Chsr	Auto Existing 2013	1,352,763,459.19	568,323.79	9.79	568,565
	Auto No Build 2035	2,731,030,269.46	699,227.80	4.83	699,348
	Auto C4C True High 2035	2,533,463,242.17	648,644.56	4.48	648,756

Northern Section Passenger Vehicle Emissions 2013 and 2035 (tons/yr)

	Scenario	VMT (mi)	CO2	CH4	CO2e
N4Ac	Auto Existing 2013	1,303,329,271.33	545,734.47	9.29	545,964
	Auto No Build 2035	2,047,593,985.09	522,403.03	3.49	522,489
	Auto N4A 2035	2,035,630,280.60	519,350.73	3.47	519,436

Southern Section Passenger Vehicle Emissions 2013 and 2035 (tons/yr)

	Scenario	VMT (mi)	CO2	CH4	CO2e
S4h	Auto Existing 2013	2,895,896,201.35	1,218,125.96	21.68	1,218,661
	Auto No Build 2035	9,364,781,442.91	2,400,800.12	16.63	2,401,213
	Auto S4 Higher 2035	9,346,313,853.53	2,396,065.68	16.59	2,396,478
S6h	Auto Existing 2013	575,850,908.97	242,225.17	4.31	242,331
	Auto No Build 2035	945,152,133.94	242,303.72	1.68	242,345
	Auto S6 Higher 2035	903,756,611.46	231,691.36	1.60	231,731
S6hsr	Auto Existing 2013	575,850,908.97	242,225.17	4.31	242,331
	Auto No Build 2035	945,152,133.94	242,303.72	1.68	242,345
	Auto S6 True High 2035	889,331,732.36	227,993.33	1.58	228,033

Notes:

1. VMT as defined in the SDG TOPRS Values 20160301: TOPRS Phase 3, PMT, VMT, Mode Share, dated March 01, 2016.

2. Emission factors from MOVES model, for passenger vehicles and buses, for scenario year 2013 (56 mph) and 2035 (48 mph), for Canadian County, OK, Dallas County, TX, and Cameron County, TX. Canadian County is associated with the Norhtern Section, Dallas County is associated with the Central Section, and Cameron County is associated with the Southern Section.

Table A-2 Central Section Intercity Bus Emissions 2013 and 2035 (tons/yr)

Scenario	VMT (mi)	CO2	CH4	CO2e
Bus Existing 2013	4,624,200	8,030	0.10	8,033
Bus No Build 2035	4,624,200	7,689	0.21	7,695
Bus C4A True High 2035	4,624,200	7,689	0.21	7,695
Bus Existing 2013	4,624,200	8,030	0.10	8,033
Bus No Build 2035	4,624,200	7,689	0.21	7,695
Bus C4A Higher 2035	4,624,200	7,689	0.21	7,695
Bus Existing 2013	4,624,200	8,030	0.10	8,033
Bus No Build 2035	4,624,200	7,689	0.21	7,695
Bus C4B True High 2035	4,624,200	7,689	0.21	7,695
Bus Existing 2013	4,624,200	8,030	0.10	8,033
Bus No Build 2035	4,624,200	7,689	0.21	7,695
Bus C4C True High 2035	4,624,200	7,689	0.21	7,695

Northern Section Intercity Bus Emissions 2013 and 2035 (tons/yr)

Scenario	VMT (mi)	CO2	CH4	CO2e
Bus Existing 2013	776,412	1,344	0.02	1,344
Bus No Build 2035	776,412	1,286	0.04	1,287
Bus N4A 2035	776,412	1,286	0.04	1,287

Southern Section Intercity Bus Emissions 2013 and 2035 (tons/yr)

Scenario	VMT (mi)	CO2	CH4	CO2e
Bus Existing 2013	4,909,200	8,536	0.11	8,539
Bus No Build 2035	4,909,200	8,174	0.23	8,180
Bus S4 Higher 2035	4,909,200	8,174	0.23	8,180
Bus Existing 2013	2,269,800	3,947	0.05	3,948
Bus No Build 2035	2,269,800	3,779	0.10	3,782
Bus S6 Higher 2035	2,269,800	3,779	0.10	3,782
Bus Existing 2013	2,269,800	3,947	0.05	3,948
Bus No Build 2035	2,269,800	3,779	0.10	3,782
Bus S6 True High 2035	2,269,800	3,779	0.10	3,782

Notes

1. VMT as defined in the SDG TOPRS Values 20160301: TOPRS Phase 3, PMT, VMT, Mode Share, dated March 01, 2016.

2. Emission factors from MOVES model, for passenger vehicles and buses, for scenario year 2013 (56 mph) and 2035 (48 mph), for Canadian County, OK (northern region), Dallas County, TX (central region), and Cameron County, TX (southern region).

Table A-3 - Central Section Airplane Emissions 2013 and 2035 (tons/yr)[2]

	Scenario	Airplanes/Day[3]	CO2e
C4Ahsr	Airplane Existing 2013	118	309.36
	Airplane No Build 2035	118	308.51
	Airplane C4A True High 2035	118	308.51
C4Ah	Airplane Existing 2013	118	309.36
	Airplane No Build 2035	118	308.51
	Airplane C4A Higher 2035	118	308.51
C4Bhsr	Airplane Existing 2013	118	309.36
	Airplane No Build 2035	118	308.51
	Airplane C4B True High 2035	118	308.51
C4Chsr	Airplane Existing 2013	118	309.36
	Airplane No Build 2035	118	308.51
	Airplane C4C True High 2035	118	308.51

Northern Section Airplane Emissions 2013 and 2035 (tons/yr)

	Scenario	Airplanes/Day[3]	CO2e
N4Ac	Airplane Existing 2013	8	20.97
	Airplane No Build 2035	8	20.92
	Airplane N4A 2035	8	20.92

Southern Section Airplane Emissions 2013 and 2035 (tons/yr)[4]

	Scenario	Airplanes/Day[3]	CO2e
S4h	Airplane Existing 2013	-	-
	Airplane No Build 2035	-	-
	Airplane S4 Higher 2035	-	-
S6h	Airplane Existing 2013	-	-
	Airplane No Build 2035	-	-
	Airplane S6 Higher 2035	-	-
S6hsr	Airplane Existing 2013	-	-
	Airplane No Build 2035	-	-
	Airplane S6 True High 2035	-	-

Notes:

1. Emission factors are based on default values for a Boeing 737-300 series airplane, from the EDMS model. Emissions include airplanes, GSE, and APUs.

2. Airplane emissions include approach, climb out, takeoff, and taxi. It does not include emissions at altitude.

3. Airplanes per day as defined in the SDG TOPRS Values 20160301: TOPRS Phase 3, LOS tabs, dated March 01, 2016.

4. No airplanes were shown in the southern region, based on the SDG TOPS LOS tabs.

5. GHG emission factor from World Resources Institute (2008). GHG Protocol tool for mobile combustion. Version 2.0. Jet Fuel. http://www.ghgprotocol.org/calculation-tools/service-sector

6. REDCOM, Commercial Aviation Fuels, TARDEC. December 2011, JP8 Fuels.

Table A-4 Central Section Electric Locomotive Emissions 2013 and 2035 (tons/yr)

	Scenario	Power (MW)[2]	1-Way Trains/day [4]	Minutes/t1-way train	Increased MWh	CO2	CH4	N2O	CO2e
C4Ahsr	Rail Existing 2013	9.60	2	605	194	40,386	0.59	26.14	48,190
	Rail No Build 2035	9.60	32	605	3,098	646,174	9.44	418.22	771,039
	Rail C4A True High 2035	9.60	32	115	589	122,827	1.79	79.50	146,561
C4Ah	Rail Existing 2013	9.60	2	605	194	40,386	0.59	26.14	48,190
	Rail No Build 2035	9.60	24	605	2,323	484,631	7.08	313.66	578,279
	Rail C4A Higher 2035	9.60	24	190	730	152,198	2.22	98.51	181,608
C4Bhsr	Rail Existing 2013	9.60	2	605	194	40,386	0.59	26.14	48,190
	Rail No Build 2035	9.60	28	605	2,710	565,402	8.26	365.94	674,659
	Rail C4B True High 2035	9.60	28	127	569	118,688	1.73	76.82	141,623
C4Chsr	Rail Existing 2013	9.60	2	605	194	40,386	0.59	26.14	48,190
	Rail No Build 2035	9.60	32	605	3,098	646,174	9.44	418.22	771,039
	Rail C4C True High 2035	9.60	32	140	717	149,528	2.18	96.78	178,422

Northern Section Electric Locomotive Emissions 2013 and 2035 (tons/yr)

	Scenario	Power (MW)	1-Way Trains/day [4]	Minutes	Increased MWh	CO2	CH4	N2O	CO2e
N4Ac	Rail Existing 2013	9.60	12	418	803	167,418	2.45	108.36	199,769
	Rail No Build 2035	9.60	12	418	803	167,418	2.45	108.36	199,769
	Rail N4A 2035	9.60	12	266	511	106,539	1.56	68.95	127,126

Southern Section Electric Locomotive Emissions 2013 and 2035 (tons/yr)

	Scenario	Power (MW)	1-Way Trains/day [4]	Minutes	Increased MWh	CO2	CH4	N2O	CO2e
S4h	Rail Existing 2013	9.60	-	-	-	-	-	-	-
	Rail No Build 2035	9.60	-	-	-	-	-	-	-
	Rail S4 Higher 2035	9.60	12	288	553	115,350	1.69	74.66	137,640
S6h	Rail Existing 2013	9.60	-	-	-	-	-	-	-
	Rail No Build 2035	9.60	-	-	-	-	-	-	-
	Rail S6 Higher 2035	9.60	12	101	194	40,453	0.59	26.18	48,270
S6hsr	Rail Existing 2013	9.60	-	-	-	-	-	-	-
	Rail No Build 2035	9.60	-	-	-	-	-	-	-
	Rail S6 True High 2035	9.60	24	56	215	44,858	0.66	29.03	53,527

Notes:

1) Criteria Pollutant Emission Factors are from the most recent NEI State summary: National Emissions Inventory (NEI) by State, 2011. Emission Inventory from combustion sources are represenatative of Power Production by State. http://www3.epa.gov/cgi-bin/broker?_service=data&_debug=0&_program=dataprog.state_1.sas&pol=PM25_PRI&stfips=40

2. Electric-powered train set rating is based on email provided by Bruce Horowitz, email dated 2/28/16. "Based on Bombardier's current European UIC Standard HSR Distributed Power Trains, comparable to the type of train we are proposing for TOPRS electric true HSR service scenarios in the central section, and the single true HSR scenario in the southern section, the power for our proposed fixed consist 8-car trainset is 9600 KwH or roughly 10 MW."

3) GHG Emission factors obtained from eGRID2012 Summary Tables. 2012 eGrid Subregion Resource Mix, Data from 2012. Data not avaliable for 2011.
https://www.epa.gov/sites/production/files/2015-10/documents/egrid2012_summarytables_0.pdf

4. Trains per day is based on the TOPRS schedules in Service Development Plan: Narrative on Initial Service Schedule and Operating Assumptions Texas-Oklahoma Passenger Rail Study – Service-Level EIS Phase, dated Aug 21, 2014.

Table A-5 Central Section Diesel Locomotive Emissions 2013 and 2035 (tons/yr)

	Scenario	Number of Trains	Travel Time[3] (min/day)	CO2
C4Ahsr	Rail Existing 2013	2	605	17,537
	Rail No Build 2035	32	605	280,594
	Rail C4A True High 2035	32	115	53,336
C4Ah [5]	Rail Existing 2013	2	605	17,537
	Rail No Build 2035	24	605	210,445
	Rail C4A Higher 2035	24	190	66,090
C4Bhsr	Rail Existing 2013	2	605	17,537
	Rail No Build 2035	28	605	245,520
	Rail C4B True High 2035	28	127	51,539
C4Chsr	Rail Existing 2013	2	605	17,537
	Rail No Build 2035	32	605	280,594
	Rail C4C True High 2035	32	140	64,931

Northern Section Diesel Locomotive Emissions 2013 and 2035 (tons/yr)

	Scenario	Number of Trains	Travel Time[3] (min/day)	CO2
N4Ac ~~4~~	Rail Existing 2013	12	418	72,699.31
	Rail No Build 2035	12	418	72,699.31
	Rail N4A 2035	12	266	46,263.20

Southern Section Diesel Locomotive Emissions 2013 and 2035 (tons/yr)

	Scenario	Number of Trains	Travel Time[3] (min/day)	CO2
S4h	Rail Existing 2013	0	-	-
	Rail No Build 2035	0	-	-
	Rail S4 Higher 2035	12	288	50,089
S6h	Rail Existing 2013	0	-	-
	Rail No Build 2035	0	-	-
	Rail S6 Higher 2035	12	101	17,566
S6hsr	Rail Existing 2013	0	-	-
	Rail No Build 2035	0	-	-
	Rail S6 True High 2035	24	56	19,479

Notes:

1. Emission factors are based on Office of Transportation and Air Quality, EPA-420-F-09-025, dated April 2009. PM2.5 should be estimated at 97% of PM10 (Page 4, other pollutants). Fuel consumption of 20.8 hp-hr/gal, for Passenger Locomotives is from Table 3 of this document and was used to convert the emission factors.

2. Diesel Train horsepower provided by Bruce Horowitz, email dated 2/25/16. The High-Performance Diesel Loco HP, based on the currently contracted (and under construction) Siemens Passenger Caltrans/IDOT 125 model: 4,400 HP

3. Hourly schedules as defined in the SDG TOPRS Values 20160301: TOPRS Phase 3, TravelTime tab, dated March 01, 2016.

4. Travel time for northern route based on time from Okalhoma city to Dallas-Fort Worth, central cention from Dallas to San Antonio, and Southern Section based on s6 - San Antonio to Laredo, S4 - sum of san antonio- Corpus Christi & Corpus christi - Brownsville (which corresponds to the # of train trips in the region)

5. Accounts for train trips equal to travel time for total duration of trip distance. No build was set eaul to number of bulid trains to account for population growth, except for in the Souther Section where there is no current rail transportation.

Revised DEIS Section: 3.5 Natural Ecological Systems and Wildlife

3.5 Natural Ecological Systems and Wildlife

This section describes natural ecological systems, wildlife corridors and assemblages, and sensitive plant communities within the Environmental Impact Statement (EIS) Study Area and assesses potential effects on these resources by the various alternatives. The introduction to Chapter 3 describes the EIS Study Area and use of terms, such as Study Vicinity and transportation corridor, along with the standard organization of each analysis.

3.5.1 Laws, Regulations, and Orders

This service-level EIS includes a corridor-level evaluation of reported resources in proximity to the build alternatives, not a detailed evaluation of individual resources and habitats. There are no specific federal laws or regulations that apply to natural ecological systems and wildlife. However, there are Texas state laws and regulations that apply. The Parks and Wildlife Code (PWC) Section 12.0011 describes Texas Parks and Wildlife's regulatory role in investigating fish kills or events that result in the loss of fish and wildlife resources and seeking restitution for those losses. PWC Section 61.005 defines wildife resources as all wild animals, wild birds and aquatic animal life, not just game species or threatened/endangered species and prohibits the taking of wildlife resources. In addition, PWC Section 63 includes regulating pertaining to the protection of bats, wolves, and armadillos. Details regarding legal and regulatory requirements pertaining to threatened and endangered species are included in Section 3.7. The potential effects on natural ecological systems and wildlife were analyzed in accordance with the National Environmental Policy Act (NEPA) of 1969, as amended (42 United States Code [U.S.C.] § 4321, et seq.), the Council on Environmental Quality (CEQ) regulations for implementing the procedural provisions of NEPA (40 Code of Federal Regulations [CFR] Parts 1500-1508), Federal Railroad Administration (FRA) policies and procedures for considering environmental impacts, and the Texas Department of Transportation (TxDOT) *Environmental Manual* (TxDOT 2004). Additional local and regional laws, regulations, and orders may be applicable and will be addressed in project-level analysis.

3.5.2 Methodology

The methodology for this evaluation consists of using existing data to identify natural ecosystem and wildlife resources that could be present within the 500-foot EIS Study Area for each build alternative and evaluating the potential level of effect that each alternative could have if constructed. Build alternatives are compared with other alternatives within the same geographical section, as well as with the No Build Alternative. The intensity of an effect as a result of the build alternatives is characterized as negligible, moderate, or substantial compared with the No Build Alternative. For natural ecological systems and wildlife, these terms are defined as follows:

- **Negligible intensity** effects from construction and operations of an alternative are those that would have a slight change to natural ecological systems, wildlife corridors and assemblages and sensitive plant communities, and higher ecological importance/value land coverage areas, but are very close to the existing conditions.

- **Moderate intensity** effects from construction and operation of an alternative would have a noticeable effect on natural ecological systems, wildlife corridors and assemblages and sensitive plant communities, and higher ecological importance/value land coverage areas, but would not have an adverse residual effect on resources.
- **Substantial intensity** effects would be long-term or permanent, and would have a noticeable, inevitable effect on natural ecological systems, wildlife corridors and assemblages and sensitive plant communities, and higher ecological importance/value land coverage areas within the buffer zone.

Available information, such as land use coverage, wildlife corridors and assemblages, and sensitive plant communities, was used to assess the potential magnitude or intensity of the effects. To evaluate the potential effects on natural ecological systems and wildlife from construction and operation of the alternatives, the following acreages were quantified:

- **Acreage of National Land Cover Database (NLCD) 2011 land cover types.** Potential effects of each build alternative were determined using NLCD 2011 data by comparing acreages of developed land covers (low, medium, and high intensity and open space) with non-developed land covers (crops, forests, wetlands, pasture, etc.) within the EIS Study Area. The NLCD was created through a cooperative project by the Multi-Resolution Land Characteristics (MRLC) Consortium.
- **Reported presence of wildlife corridors and assemblages and sensitive plant communities.** Potential effects of each build alternative were determined using approximate number and locations of reported wildlife corridors and assemblages and sensitive plant communities within the EIS Study Area.

To determine the locations of ecologically sensitive areas within the EIS Study Area and to analyze the overall potential effects of each build alternative on this resource, the U.S. Environmental Protection Agency (EPA) Regional Ecological Assessment Protocol (REAP) methodology was used. This methodology is a screening-level, rapid assessment tool that uses existing data to assess ecoregions in the five states in EPA Region 6 (Arkansas, Louisiana, New Mexico, Oklahoma, and Texas). Characteristics assessed in REAP include land cover, contiguous size of undeveloped area, vegetation rarity, natural heritage rank, taxonomic richness, rare species richness, regularity of ecosystem boundaries, waterway obstructions (i.e., dams), road density, water quality, and air quality (EPA 2011). REAP assigns an Ecological Importance Rank to each acre within the EIS Study Area. The REAP composite data and the three data layers (diversity, rarity, and sustainability) are designed to assess EPA Region 6 by ecoregion and to identify the optimum ecological areas for protection and mitigation based on ecological theory (no political boundaries or regulatory programs). Higher scores indicate higher ecological importance/value, which are divided into the following five groups: 1 (top 1 percent of scores), 10 (top 10 percent of scores), 25 (top 25 percent of scores), 50 (top 50 percent of scores), and 100 (all the rest of the scores). Higher scores correspond to lower REAP values (1, 10, and 25), which represent the highest ecologically

important areas. REAP scores were determined to evaluate the potential quantitative effects on natural ecological systems and wildlife using a similar basis of comparison across the alternatives.

The Texas Natural Diversity Database (TXNDD) was used to identify reported locations of terrestrial communities and animal assemblages. This GIS database system is typically used on a project level assessment along with other databases and field investigations to evaluate environmental impacts and resource management. For this service- level assessment where detailed route alignment alternatives have not yet been defined, this tool was used as a preliminary indicator of the magnitude of plant and animal resources within the EIS Study Area, based on reported occurrences. It is noted that due to the lack of current and historic access to private lands and the limitation of reporting information only from public data sources, there are known to be gaps in the TXNDD data. However, this data source does provide a preliminary indication of the reported occurrences of resources across a large area such as the EIS Study Area.

3.5.3 Affected Environment

The Texas-Oklahoma Passenger Rail Program (Program) corridor spans 850 miles, from central Oklahoma to south Texas. Therefore, the alternatives are spread across a broad geographic area with typical weather patterns that include semi-arid, humid subtropical, and modified subtropical conditions. The EIS Study Area generally lies along low-elevation basins and valleys associated with the Great Plains in the north and with the Coastal Plains in the south. Land cover types within the EIS Study Area include developed, vegetated with open grasslands, agricultural, shrubland, and forests.

In general, the climate in the Study Vicinity is characterized by a regime of moderate to hot summer drought and winter rain. Winter rain results from low-pressure depressions associated with Pacific and Arctic fronts (University of Oklahoma 2014; Texas Climate Data 2014). In the Northern Section, annual precipitation averages 48 inches near Oklahoma City to 37 inches near Dallas and Fort Worth. In the Central Section, annual precipitation averages 36 inches in Waco to 34 inches in Austin. In the Southern Section, annual precipitation ranges from 32 inches in San Antonio to 20 inches in Laredo. Precipitation is generally rain except during winter in the Northern Section from Oklahoma to Dallas and Fort Worth where snowfall can occur. The daily high temperature ranges on average from 50 to 94 degrees Fahrenheit (°F) in the Northern Section to 67 to 100°F in the Southern Section; however, temperatures over 100°F are common in summer throughout the entire Study Vicinity (U.S. Climate Data 2014).

The NLCD is used in this analysis to describe general vegetation characteristics throughout the EIS Study Area and to compare areas of developed versus non-developed land covers. The NLCD 2011 land cover types within the EIS Study Area are defined in Table 3.5-1.

Table 3.5-1: National Land Cover Database Land Cover Types

Land Cover Type	Definition
Developed, High Intensity	Highly developed, where people reside or work in high numbers.
Developed, Medium Intensity	Mixture of constructed materials and vegetation. Impervious surfaces account for 50 to 79 percent of the total cover.
Developed, Low Intensity	Mixture of constructed materials and vegetation. Impervious surfaces account for 20 to 49 percent of total cover.
Developed, Open Space	Mixture of some constructed materials, but mostly vegetation in the form of lawn grasses. Impervious surfaces account for less than 20 percent of total cover.
Barren Land	Rock, sand, and clay. Generally, vegetation accounts for less than 15 percent of total cover.
Deciduous Forest	Dominated by trees generally greater than 5 meters tall and greater than 20 percent of total vegetation cover.
Evergreen Forest	Dominated by trees generally greater than 5 meters tall and greater than 20 percent of total vegetation cover.
Mixed Forest	Dominated by trees generally greater than 5 meters tall and greater than 20 percent of total vegetation cover.
Shrub/Scrub	Dominated by shrubs less than 5 meters tall with shrub canopy typically greater than 20 percent of total vegetation.
Grassland/Herbaceous	Dominated by gramanoid or herbaceous vegetation, generally greater than 80 percent of total vegetation.
Pasture/Hay	Grasses, legumes, or grass-legume mixtures planted for livestock grazing or the production of seed or hay crops, typically on a perennial cycle. Pasture/hay vegetation accounts for greater than 20 percent of total vegetation.
Cultivated Crops	Used for the production of annual crops, such as corn, soybeans, vegetables, tobacco, and cotton, and perennial woody crops, such as orchards and vineyards. Crop vegetation accounts for greater than 20 percent of total vegetation.
Woody Wetlands	Forest or shrubland vegetation accounts for greater than 20 percent of vegetative cover, and the soil or substrate is periodically saturated with or covered with water.
Emergent Herbaceous Wetlands	Perennial herbaceous vegetation accounts for greater than 80 percent of vegetative cover, and the soil or substrate is periodically saturated or covered with water.
Open Water	Open water, generally with less than 25 percent cover of vegetation or soil.

Source: Homer et al. (2015).

Based on the *2011 Environmental Occurrences for Federal and State Listed and Tracked Threatened, Endangered, and Rare Species* spatial dataset (Michael Baker Jr., Inc. 2012), one sensitive terrestrial plant community, Little Bluestem-Indiangrass series (*Schizachyrium scoparium-Sorghastrum nutans* series), is reported within the EIS Study Area. The Little Bluestem-Indiangrass series plant community is an upland prairie, native tall grassland, climax plant community that contains native grasses and forbs. Much of north-central Texas was historically native prairies or

savannahs. Few native prairie sites remain today, although there are extensive grasslands on many private ranches in the northern portion of the Fort Worth Prairie (Texas Parks and Wildlife Department [TPWD] 2014).

Based on the same dataset, one type of animal assemblage, identified as a "rookery," is located within the EIS Study Area. Rookeries, or breeding grounds of colony-forming species, are important in an ecosystem as they are home to migratory and resident wading birds and shorebirds. No other natural plant communities or other significant features (e.g., bat caves, prairie dog towns) are reported within the EIS Study Area.

3.5.3.1 Northern Section: Oklahoma City to Dallas and Fort Worth

3.5.3.1.1 National Land Cover Database – Land Cover

Based on the NLCD, approximately 46 percent (6,947 acres) of the 15,108 acres of the EIS Study Area for Alternative N4A is composed of developed land coverage types (high, medium, and low intensity or open space). The remaining 54 percent (8,161 acres) is composed of non-developed land coverage types, with grasslands composing 30 percent, forest composing 12 percent, cultivated crops composing 6 percent, and pasture composing 5 percent. Less than 1 percent of the EIS Study Area is composed of wetlands and shrubland/scrub. Table 3.5-2 includes the acres of NLCD land cover types within the EIS Study Area for Alternative N4A Conventional, as well as the detailed percentages of total area for each land cover type.

Table 3.5-2: Acres of Potential NLCD Land Cover Types within EIS Study Area – Alternative N4A

Land Cover Type	Alternative N4A	
	Acres of Land Cover Types within EIS Study Area	Percentage of Total EIS Study Area
Developed		
High Intensity	1,249	8%
Medium Intensity	1,625	11%
Low Intensity	2,046	14%
Open Space	2,027	13%
Total Developed[a]	**6,947**	**46%**
Non-developed		
Barren Land (Rock/Sand/Clay)	53	<1%
Cultivated Crops	960	6%
Deciduous Forest	1,748	12%
Emergent Herbaceous Wetlands	8	<1%
Evergreen Forest	15	<1%
Grassland/Herbaceous	4,465	30%
Mixed Forest	0	0%
Open Water	120	1%

Land Cover Type	Alternative N4A	
	Acres of Land Cover Types within EIS Study Area	Percentage of Total EIS Study Area
Pasture/Hay	783	5%
Shrub/Scrub	2	<1%
Woody Wetlands	7	<1%
Total Non-developed [a]	**8,161**	**54%**

[a] Acreage totals may be slightly different because values were rounded to the nearest whole number.

Source: MRLC (2011).

3.5.3.1.2 Wildlife Corridors and Assemblages and Sensitive Plant Communities

Based on the spatial datasets acquired from TXNDD and Oklahoma Department of Wildlife Conservation (ODWC) (2014), Figure 3.5-1 illustrates approximate locations of reported terrestrial communities and animal assemblage area (rookeries) within the EIS Study Area for Alternative N4A. No other wildlife corridors and assemblages or sensitive plant communities were identified within the EIS Study Area.

3.5.3.1.3 REAP Composite Scores

As identified in Table 3.5-3, potentially 10 percent (1,535 acres) of the total land coverage of the EIS Study Area for Alternative N4A is composed of higher ecological importance/value land coverage areas (Ecological Importance Rankings of 1, 10, and 25). As shown on Figures 3.5-2 and 3.5-3, most lands with higher ecological importance are in areas just south of Norman, Oklahoma, near Murray County as the route passes through Love and Grayson counties. All other areas of Alternative N4A Conventional consist predominantly of lower ecological value land types.

Table 3.5-3: Acres of Potential REAP Composite Ranking Land Coverages – Alternative N4A

Ecological Importance Rank	Alternative N4A	
	Acres of Potential REAP Ecological Importance Ranking Types within EIS Study Area	Total Area of EIS Study Area (High Value vs. All Other Land Types)
1	100	10% (1,535 acres)
10	665	
25	770	
50	1,829	90% (13,572 acres)
100	11,743	
Total (acres)[a]	**15,107**	-

[a] Acreage totals may be slightly different because values were rounded to the nearest whole number.

Source: EPA (2011).

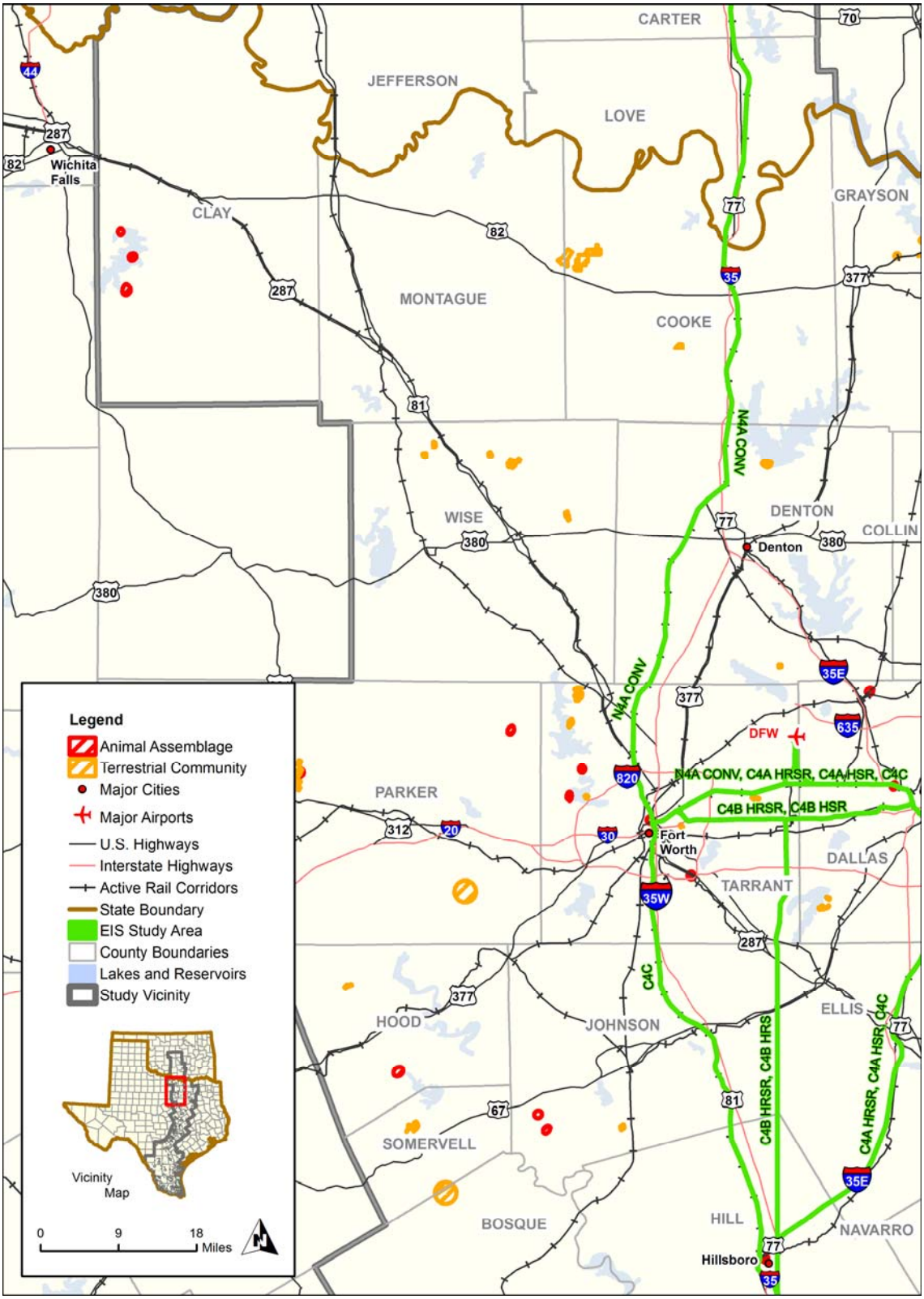

Figure 3.5-1: Wildlife Corridors/Assemblages and Communities – Northern Section Alternative

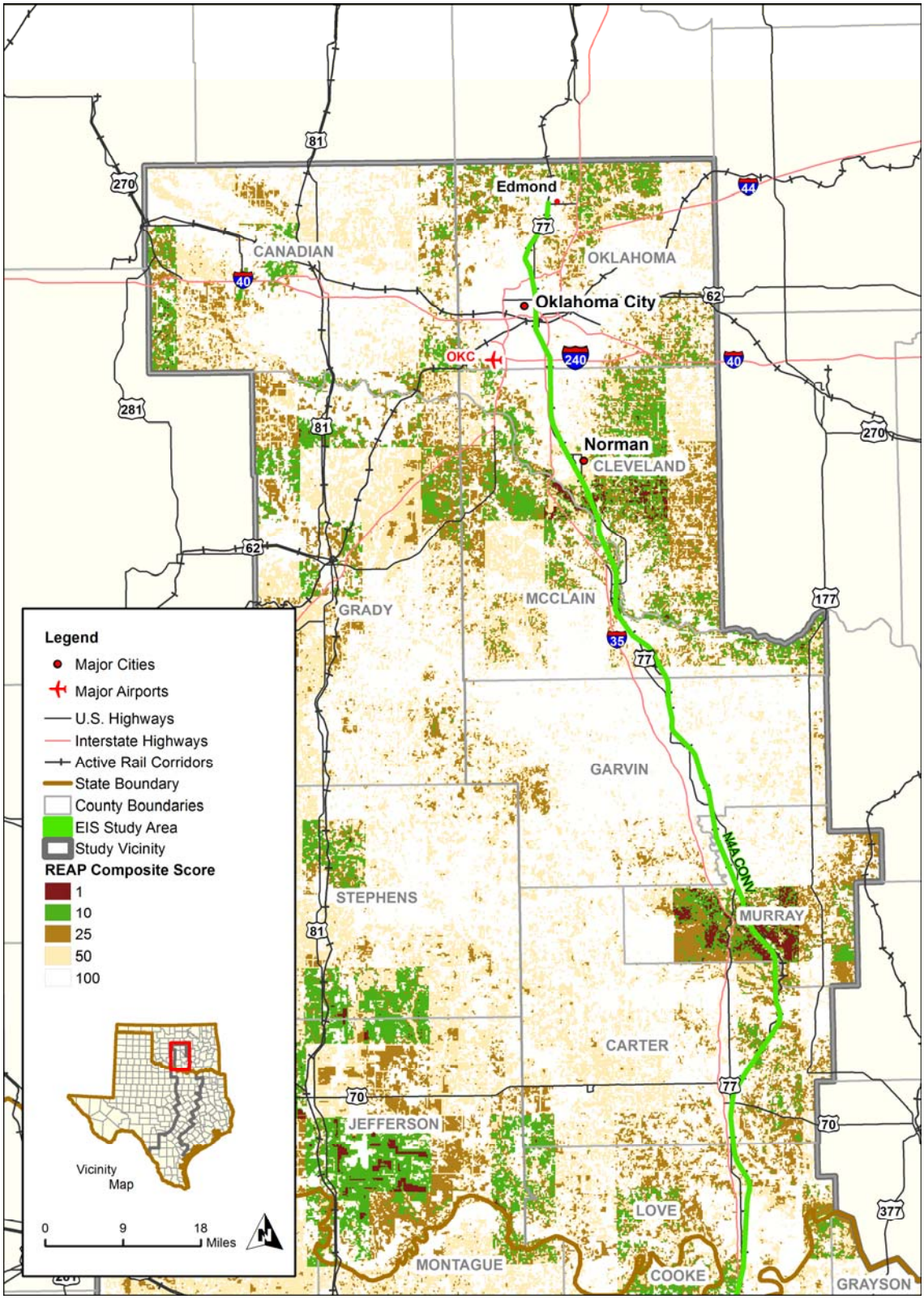

Figure 3.5-2: REAP Composite Scores – Northern Section Alternative

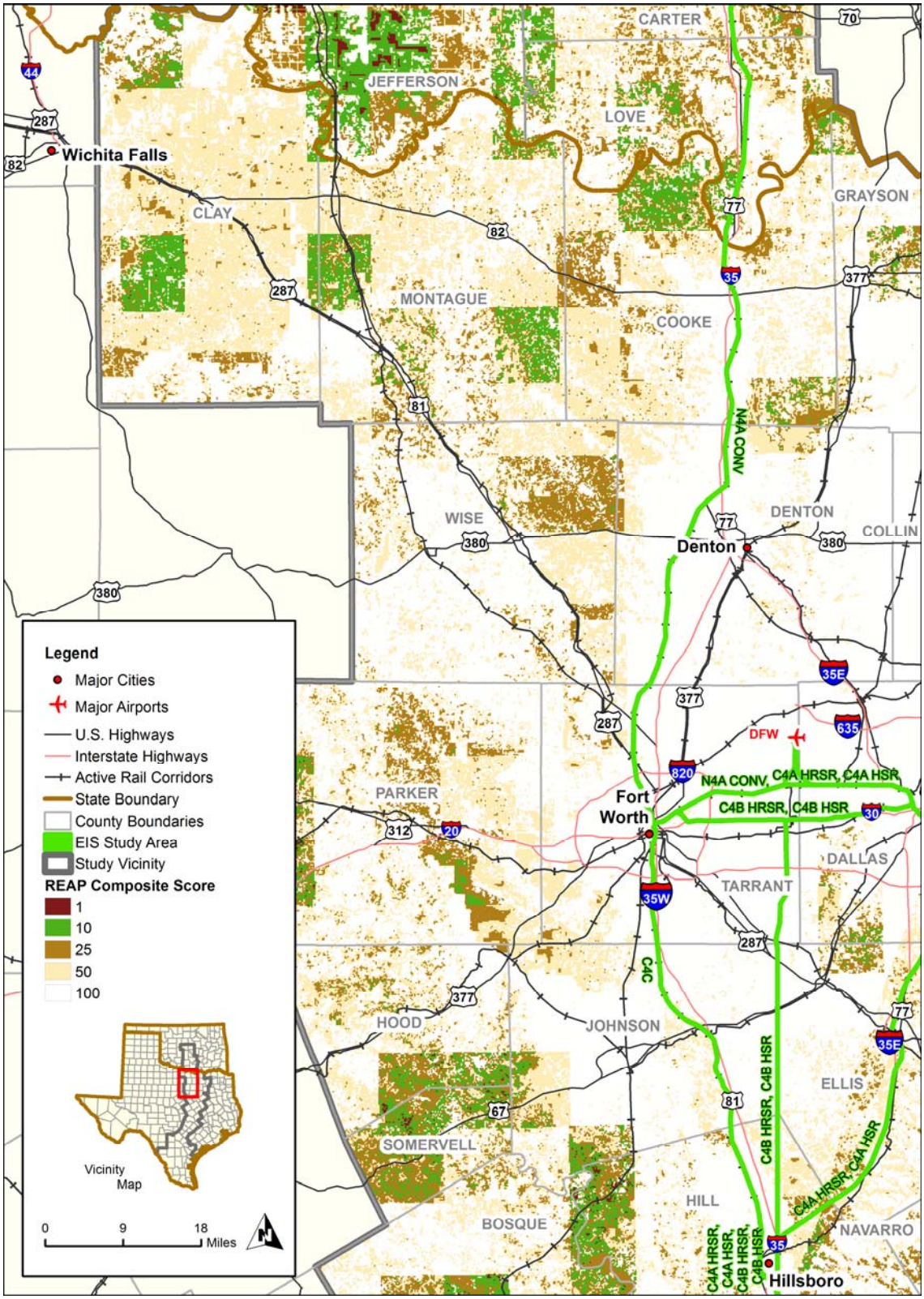

Figure 3.5-3: REAP Composite Scores – Northern Section Alternative

3.5.3.2 Central Section: Dallas and Fort Worth to San Antonio

3.5.3.2.1 National Land Cover Database – Land Cover

Based on NLCD data, approximately 38 percent (7,564 acres) of the 20,129 acres of the EIS Study Area for Alternative C4A is composed of developed land coverage types. The remaining 62 percent (12,565 acres) is composed of non-developed land coverage types, with grasslands composing 21 percent, cultivated crops composing 15 percent, shrub/scrub composing 9 percent, and forest and pasture each composing 7 percent. Wetlands and open water compose about 2 percent and less than 1 percent, respectively. Table 3.5-4 includes the acres of potential land cover types within the EIS Study Area for Alternative C4A, as well as the detailed percentages of total area for each land cover type. The northern extent of Alternative C4A, near Dallas and Fort Worth, would follow the Trinity Railway Express (TRE) between Fort Worth and Dallas, then continue south on the BNSF alignment; however, most of Alternative C4A Higher-Speed Rail, starting at Waxahachie, would follow an alignment outside existing transportation corridors.

Table 3.5-4: Acres of Potential Land Cover Types – Alternative C4A

Land Cover Type	Alternative C4A	
	Acres of Land Cover Types within EIS Study Area	Percentage of Total EIS Study Area
Developed		
High Intensity	1,347	7%
Medium Intensity	1,809	9%
Low Intensity	1,667	8%
Open Space	2,741	14%
Total Developed[a]	**7,564**	**38%**
Non-developed		
Barren Land (Rock/Sand/Clay)	48	<1%
Cultivated Crops	3,013	15%
Deciduous Forest	1,284	6%
Emergent Herbaceous Wetlands	18	<1%
Evergreen Forest	261	1%
Grassland/Herbaceous	4,274	21%
Mixed Forest	63	<1%
Open Water	80	<1%
Pasture/Hay	1,404	7%
Shrub/Scrub	1,720	9%
Woody Wetlands	400	2%
Total Non-developed[a]	**12,565**	**62%**

[a] Acreage totals may be slightly different because values were rounded to the nearest whole number.

Source: MRLC (2011).

Approximately 36 percent (6,642 acres) of the 18,675 acres of the EIS Study Area for Alternative C4B is composed of developed land coverage types. The remaining 63 percent (12,033 acres) is composed of non-developed land coverage types, with grasslands composing 21 percent, cultivated crops composing 17 percent, shrub/scrub and pasture each composing 9 percent, and forest composing 5 percent. Wetlands and open water compose 2 percent and less than 1 percent, respectively. Table 3.5-5 includes the acres of potential land cover types within the EIS Study Area for Alternative C4B, as well as the percentages of total area for each land cover type.

Table 3.5-5: Acres of Potential Land Cover Types – Alternative C4B

Land Cover Type	Alternative C4B	
	Acres of Land Cover Types within EIS Study Area	Percentage of Total EIS Study Area
Developed		
High Intensity	1,318	7%
Medium Intensity	1,810	10%
Low Intensity	1,374	7%
Open Space	2,140	11%
Total Developed[a]	**6,642**	**36%**
Non-developed		
Barren Land (Rock/Sand/Clay)	30	<1%
Cultivated Crops	3,252	17%
Deciduous Forest	812	4%
Emergent Herbaceous Wetlands	10	<1%
Evergreen Forest	237	1%
Grassland/Herbaceous	3,886	21%
Mixed Forest	63	<1%
Open Water	59	<1%
Pasture/Hay	1,602	9%
Shrub/Scrub	1,716	9%
Woody Wetlands	366	2%
Total Non-developed[a]	**12,033**	**63%**

[a] Acreage totals may be slightly different because values were rounded to the nearest whole number.

Source: MRLC (2011).

Approximately 38 percent (9,122 acres) of the 23,713 acres of the EIS Study Area for Alternative C4C is composed of developed land coverage types. The remaining 62 percent (14,591) is composed of grasslands (23 percent), cultivated crops (14 percent), forest (8 percent), shrub/scrub (7 percent), and pasture (6 percent). Wetlands and open water compose 2 percent and less than 1 percent, respectively. Table 3.5-6 includes the acres of potential land cover types within the EIS

Study Area for Alternative C4C, as well as the percentages of total area for each land cover type. The northern extent of Alternative C4C, near Dallas and Fort Worth, would follow the TRE between Fort Worth and Dallas, then continue south on the BNSF alignment; however, the majority of the alternative, starting at Waxahachie, would follow an alignment outside existing transportation corridors.

Table 3.5-6: Acres of Potential Land Cover Types – Alternative C4C

Land Cover Type	Alternative C4C	
	Acres of Land Cover Types within EIS Study Area	Percentage of Total EIS Study Area
Developed		
High Intensity	1,533	6%
Medium Intensity	2,080	9%
Low Intensity	2,108	9%
Open Space	3,401	14%
Total Developed[a]	**9,122**	**38%**
Non-developed		
Barren Land (Rock/Sand/Clay)	60	<1%
Cultivated Crops	3,350	14%
Deciduous Forest	1738	7%
Emergent Herbaceous Wetlands	18	<1%
Evergreen Forest	264	1%
Grassland/Herbaceous	5,415	23%
Mixed Forest	63	<1%
Open Water	84	<1%
Pasture/Hay	1,453	6%
Shrub/Scrub	1,728	7%
Woody Wetlands	418	2%
Total Non-developed[a]	**14,591**	**62%**

[a] Acreage totals may be slightly different because values were rounded to the nearest whole number.

Source: MRLC (2011).

3.5.3.2.2 Wildlife Corridors and Assemblages and Sensitive Plant Communities

The spatial dataset acquired from TXNDD, Figures 3.5-4 and 3.5-5, illustrates that animal assemblages and special terrestrial communities reported within the EIS Study Area are located in the portions of the alternative outside existing transportation corridors.

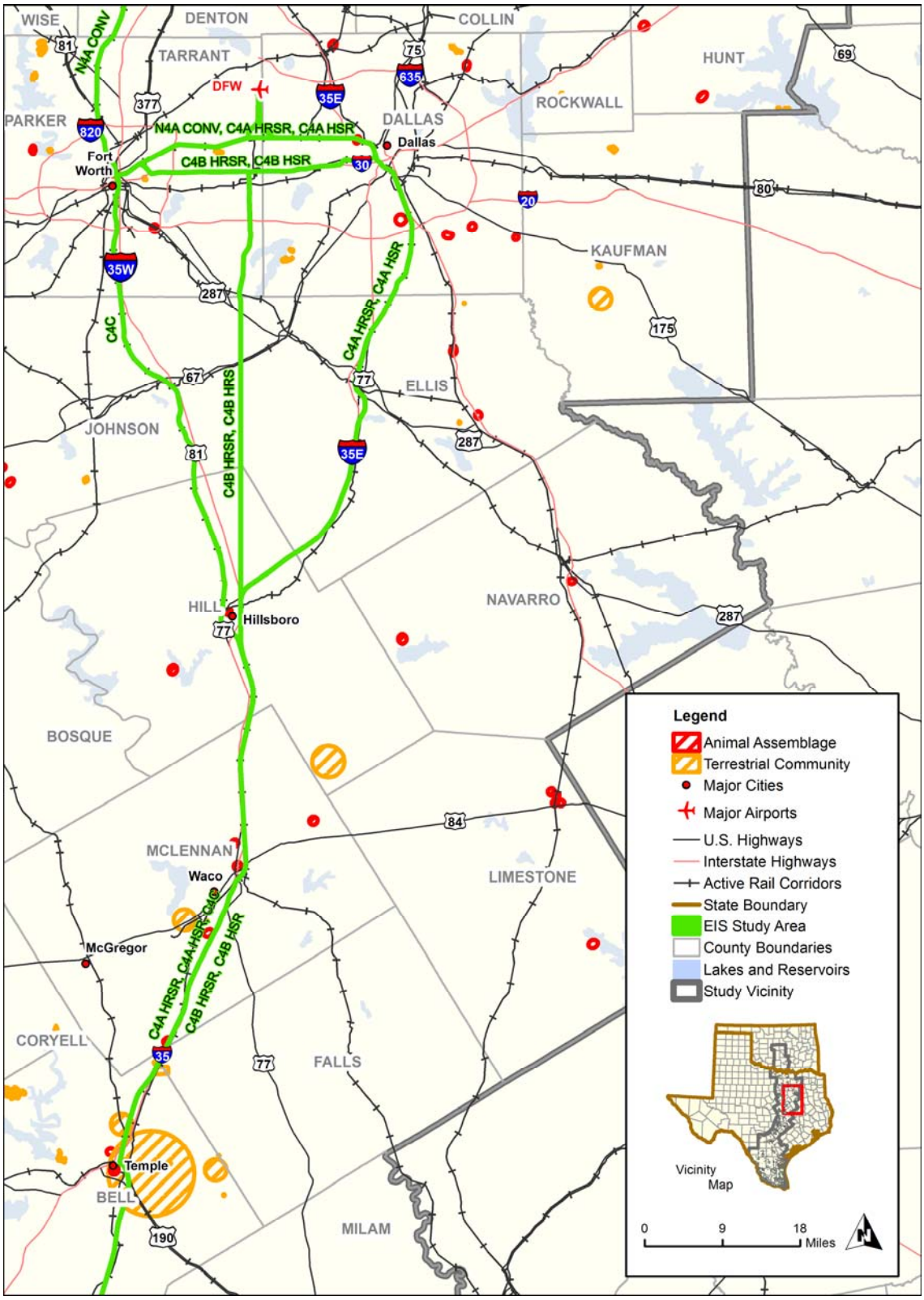

Figure 3.5-4: Wildlife Corridors/Assemblages and Communities – Central Section Alternatives

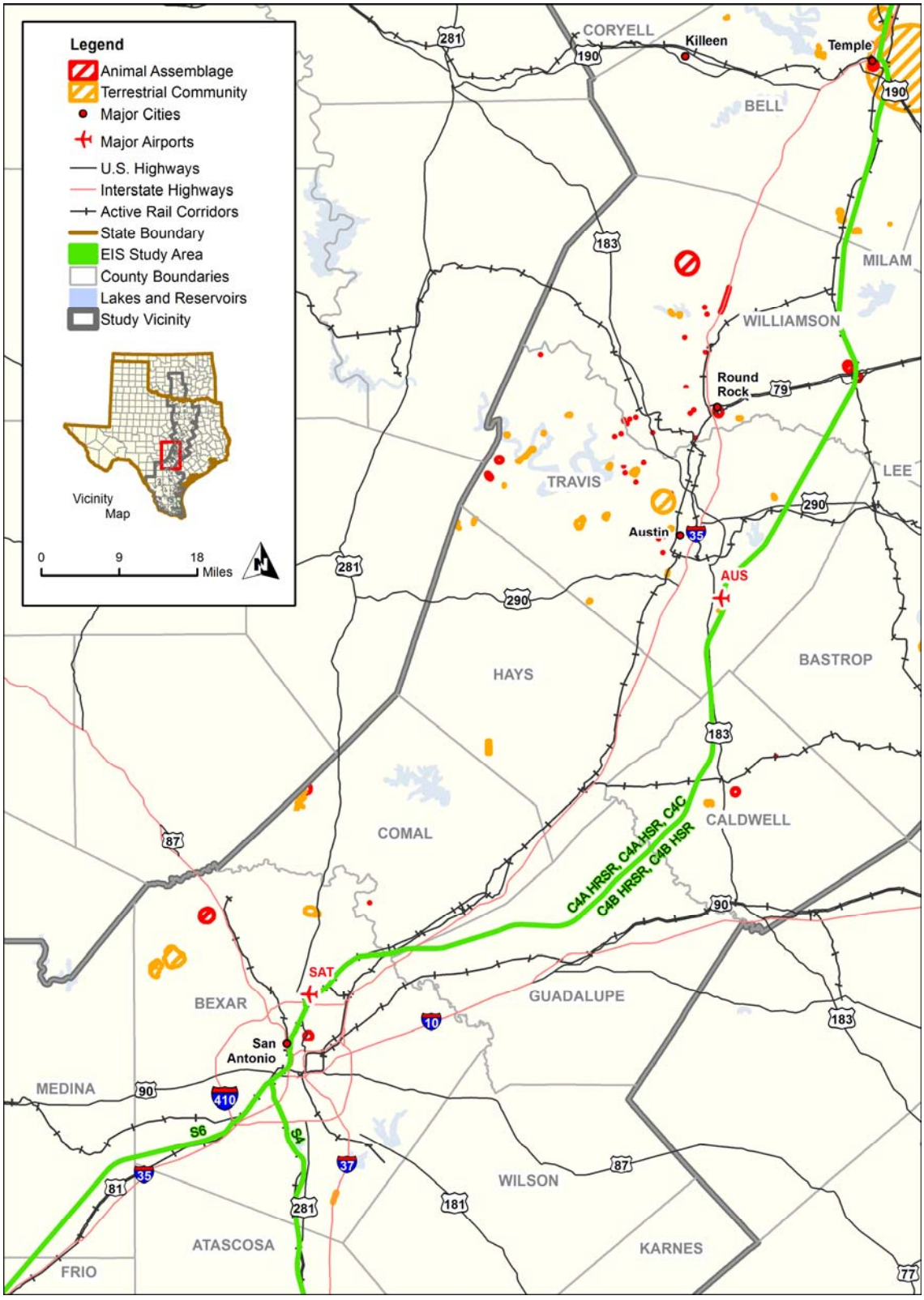

Figure 3.5-5: Wildlife Corridors/Assemblages and Communities – Central Section Alternatives

3.5.3.2.3 REAP Composite Scores

As identified in Table 3.5-7, potentially 18 percent (3,537 acres) of the total acreage of the EIS Study Area for Alternative C4A is composed of higher ecological importance/value land coverage areas (Ecological Importance Rankings of 1, 10, and 25). As shown on Figures 3.5-6 and 3.5-7, the majority of lands with higher ecological importance are in the portions of Alternatives C4A outside existing transportation corridors, in areas just south of McGregor, through Temple, and east of Austin and as the corridor passes through Guadalupe County. Areas of Alternative C4A that consist of predominantly lower ecological value land types are near Dallas and Fort Worth, where the alternative would follow the existing right-of-way of the TRE to Dallas and continue on the BNSF alignment.

Table 3.5-7: Acres of Potential REAP Composite Ranking Land Coverages – Alternative C4A

Ecological Importance Rank	Alternative C4A	
	Acres of Potential REAP Ecological Importance Ranking Types within EIS Study Area	Total Area of EIS Study Area (High Value vs. All Other Land Types)
1	32	18% (3,537 acres)
10	1,884	
25	1,621	
50	3,407	82% (16,591 acres)
100	13,184	
Total (acres)[a]	**20,128**	-

[a] Acreage totals may be slightly different because values were rounded to the nearest whole number.

Source: EPA (2011).

As identified in Table 3.5-8, potentially 18 percent (3,328 acres) of the total acreage of the EIS Study Area for Alternative C4B is composed of higher ecological importance/value land coverage areas (Ecological Importance Rankings of 1, 10, and 25). As shown on Figures 3.5-6 and 3.5-7, the majority of lands with higher ecological importance are in the portions of Alternative C4B outside existing transportation corridors, in areas just south of McGregor, through Temple, and east of Austin and as the corridor passes through Guadalupe County. Areas of Alternative C4B that consist of predominantly lower ecological value land types are near Dallas and Fort Worth, where the alternative would follow a new elevated high-speed rail alignment in the Interstate Highway (IH)-30 median to Arlington.

Table 3.5-8: Acres of Potential REAP Composite Ranking Land Coverages – Alternative C4B

Ecological Importance Rank	Alternative C4B	
	Acres of Potential REAP Ecological Importance Ranking Types within EIS Study Area	Total Area of EIS Study Area (High Value vs. All Other Land Types)
1	32	18% (3,328 acres)
10	1,839	
25	1,457	
50	2,727	82% (15,347 acres)
100	12,621	
Total (acres)[a]	**18,675**	-

[a] Acreage totals may be slightly different because values were rounded to the nearest whole number.

Source: EPA (2011).

As identified in Table 3.5-9, potentially 15 percent (3,556 acres) of the total acreage of the EIS Study Area for Alternative C4C Higher-Speed Rail is composed of higher ecological importance/value land coverage areas (Ecological Importance Rankings of 1, 10, and 25). As shown on Figures 3.5-6 and 3.5-7, the majority of lands with higher ecological importance are in the portions of Alternative C4C outside existing transportation corridors, in areas just south of McGregor, through Temple, and east of Austin and as the corridor passes through Guadalupe County. Areas of Alternative C4C that consist of predominantly lower ecological value land types are near Dallas and Fort Worth, where the alternative would follow a new elevated high-speed alignment in the IH-30 median to Arlington.

Table 3.5-9: Acres of Potential REAP Composite Ranking Land Coverages – Alternative C4C

Ecological Importance Rank	Alternative C4C	
	Acres of Potential REAP Ecological Importance Ranking Types within EIS Study Area	Total Area of EIS Study Area (High Value vs. All Other Land Types)
1	32	15% (3,556 acres)
10	1,884	
25	1,640	
50	3,613	85% (20,158 acres)
100	16,546	
Total (acres)[a]	**23,714**	-

[a] Acreage totals may be slightly different because values were rounded to the nearest whole number.

Source: EPA (2011).

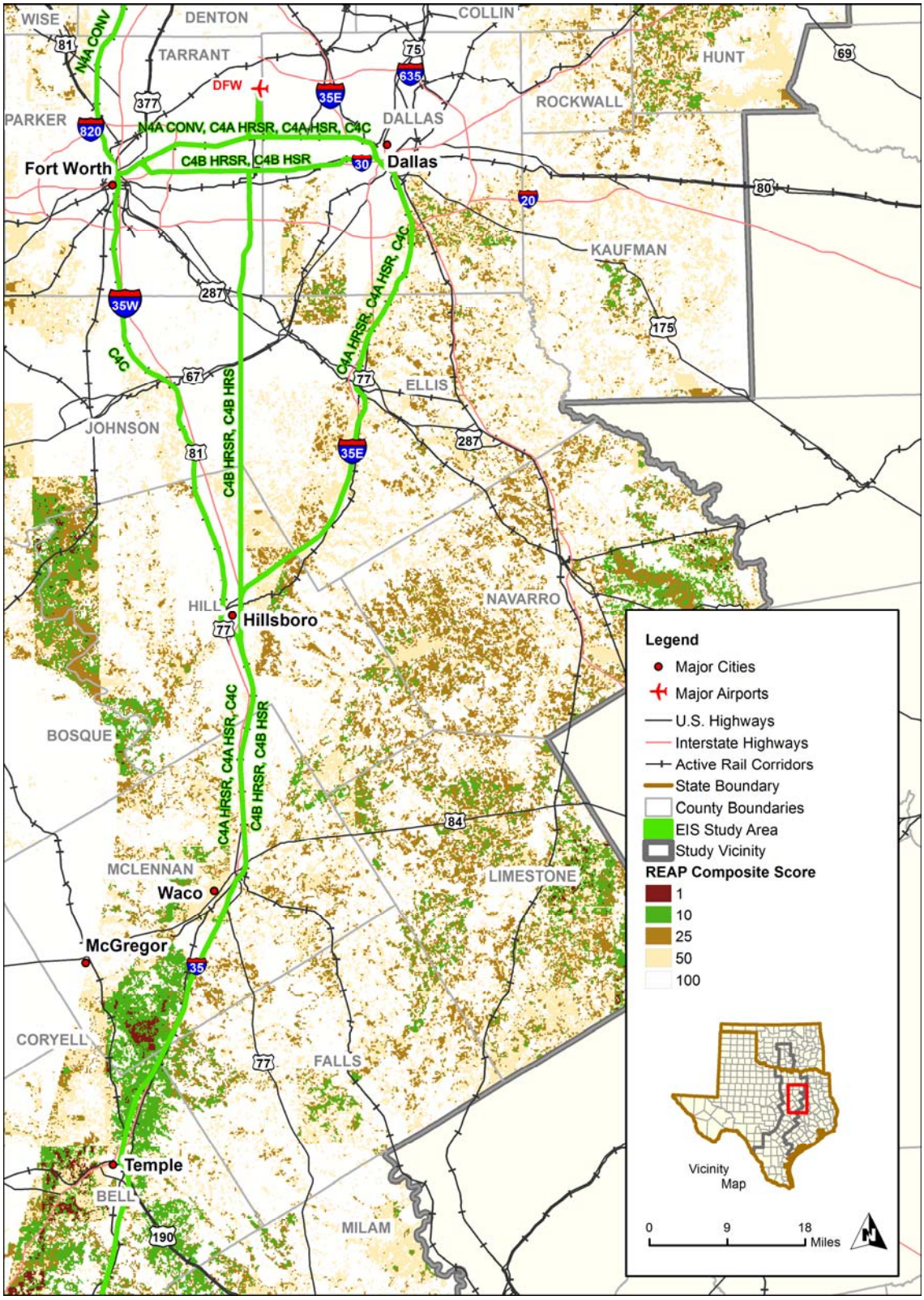

Figure 3.5-6: REAP Composite Scores – Central Section Alternatives

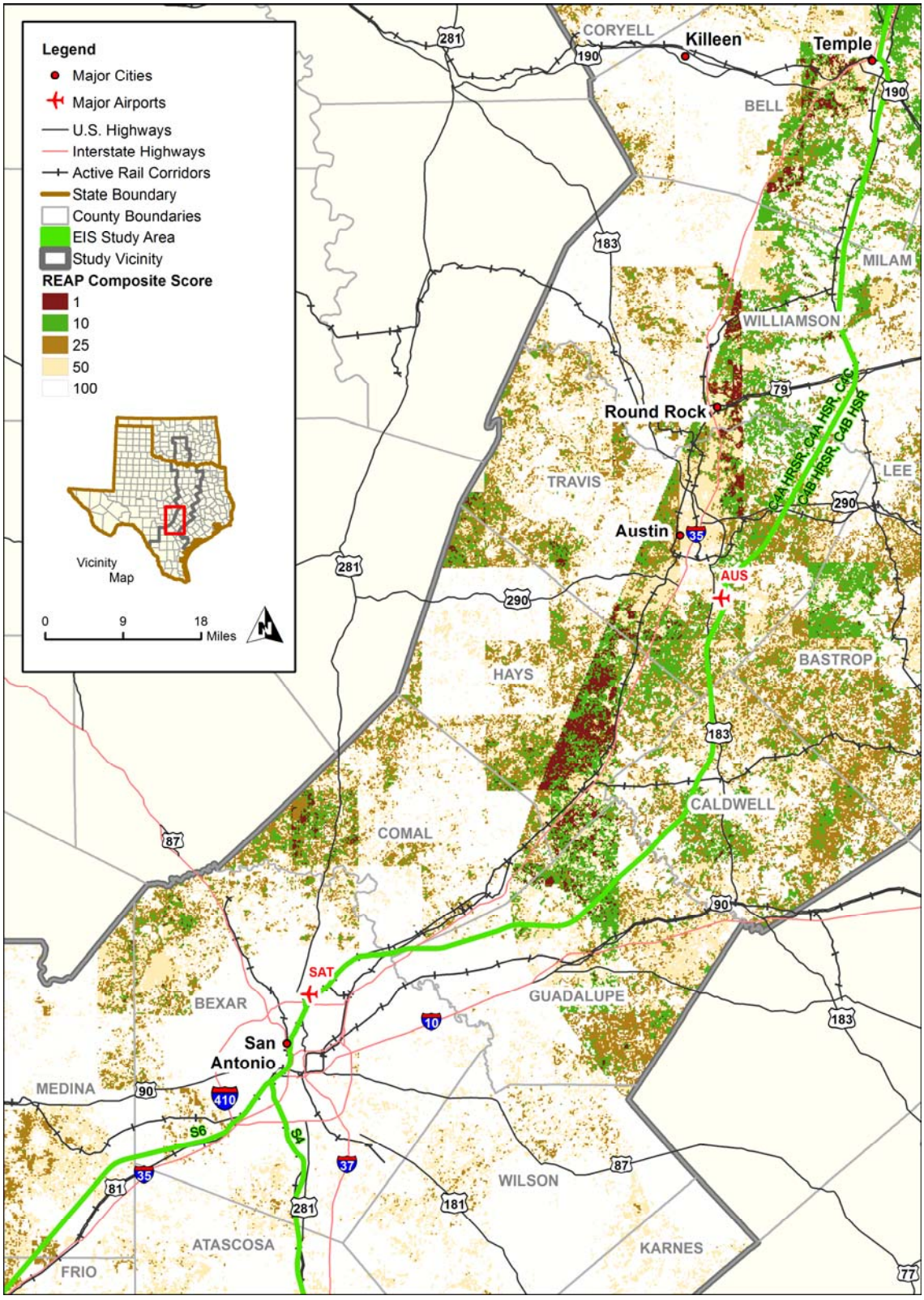

Figure 3.5-7: REAP Composite Scores – Central Section Alternatives

3.5.3.3 Southern Section: San Antonio to South Texas

3.5.3.3.1 National land Cover Database – Land Cover

Based on the NLCD, approximately 32 percent (7,998 acres) of the 25,194 acres of the EIS Study Area for Alternative S4 is composed of developed land coverage types. The remaining 68 percent (17,196) is composed of non-developed land coverage types, with shrub/scrub composing 34 percent, pasture composing 12 percent, grassland and cultivated crops each composing 9 percent. Wetlands compose about 2 percent, and forests compose 1 percent. Table 3.5-10 includes the acres of potential land cover types within the EIS Study Area for Alternative S4, as well as the detailed percentages of total area for each land cover type.

Table 3.5-10: Acres of Potential Land Cover Types within EIS Study Area – Alternative S4

Land Cover Type	Alternative S4	
	Acres of Land Cover Types within EIS Study Area	Percentage of Total EIS Study Area
Developed		
High Intensity	776	3%
Medium Intensity	2,019	8%
Low Intensity	2,888	11%
Open Space	2,315	9%
Total Developed[a]	**7,998**	**32%**
Non-developed		
Barren Land (Rock/Sand/Clay)	260	1%
Cultivated Crops	2,174	9%
Deciduous Forest	340	1%
Emergent Herbaceous Wetlands	64	<1%
Evergreen Forest	41	<1%
Grassland/Herbaceous	2,330	9%
Mixed Forest	24	<1%
Open Water	45	<1%
Pasture/Hay	2,948	12%
Shrub/Scrub	8,574	34%
Woody Wetlands	396	2%
Total Non-developed[a]	**17,196**	**68%**

[a] Acreage totals may be slightly different because values were rounded to the nearest whole number.

Source: MRLC (2011).

Only approximately 8 percent (701 acres) of the 8,666 acres of the EIS Study Area for Alternative S6 is composed of developed land coverage types. The majority of the land coverage of the EIS

Study Area is composed of non-developed land coverage types, consisting of shrub/scrub (44 percent), grasslands (20 percent), cultivated crops (14 percent), pasture (7 percent), wetlands (emergent herbaceous and woody) (3 percent), and forest (deciduous, evergreen, and woody) (3 percent). Table 3.5-11 includes the acres of potential land cover types within the EIS Study Area for Alternative S6, as well as the detailed percentages of total area for each land cover type.

Table 3.5-11: Acres of Potential Land Cover Types within EIS Study Area – Alternative S6

Land Cover Type	Alternative S6	
	Acres of Land Cover Types within EIS Study Area	Land Cover Types within EIS Study Area
Developed		
High Intensity	84	1%
Medium Intensity	97	1%
Low Intensity	202	2%
Open Space	318	4%
Total Developed[a]	**701**	**8%**
Non-developed		
Barren Land (Rock/Sand/Clay)	108	1%
Cultivated Crops	1,177	14%
Deciduous Forest	112	1%
Emergent Herbaceous Wetlands	9	<1%
Evergreen Forest	58	1%
Grassland/Herbaceous	1,729	20%
Mixed Forest	52	1%
Open Water	11	<1%
Pasture/Hay	578	7%
Shrub/Scrub	3,852	44%
Woody Wetlands	279	3%
Total Non-developed[a]	**7,965**	**92%**

[a] Acreage totals may be slightly different because values were rounded to the nearest whole number.

Source: MRLC (2011).

3.5.3.3.2 Wildlife Corridors and Assemblages and Sensitive Plant Communities

The spatial dataset acquired from TXNDD, Figures 3.5-8 through 3.5-11, illustrates that the reported terrestrial community in Brooks County is within an existing abandoned rail corridor in areas that were disturbed by prior rail development. No wildlife corridors and assemblages and sensitive plant communities were reported within the EIS Study Area for Alternative S6.

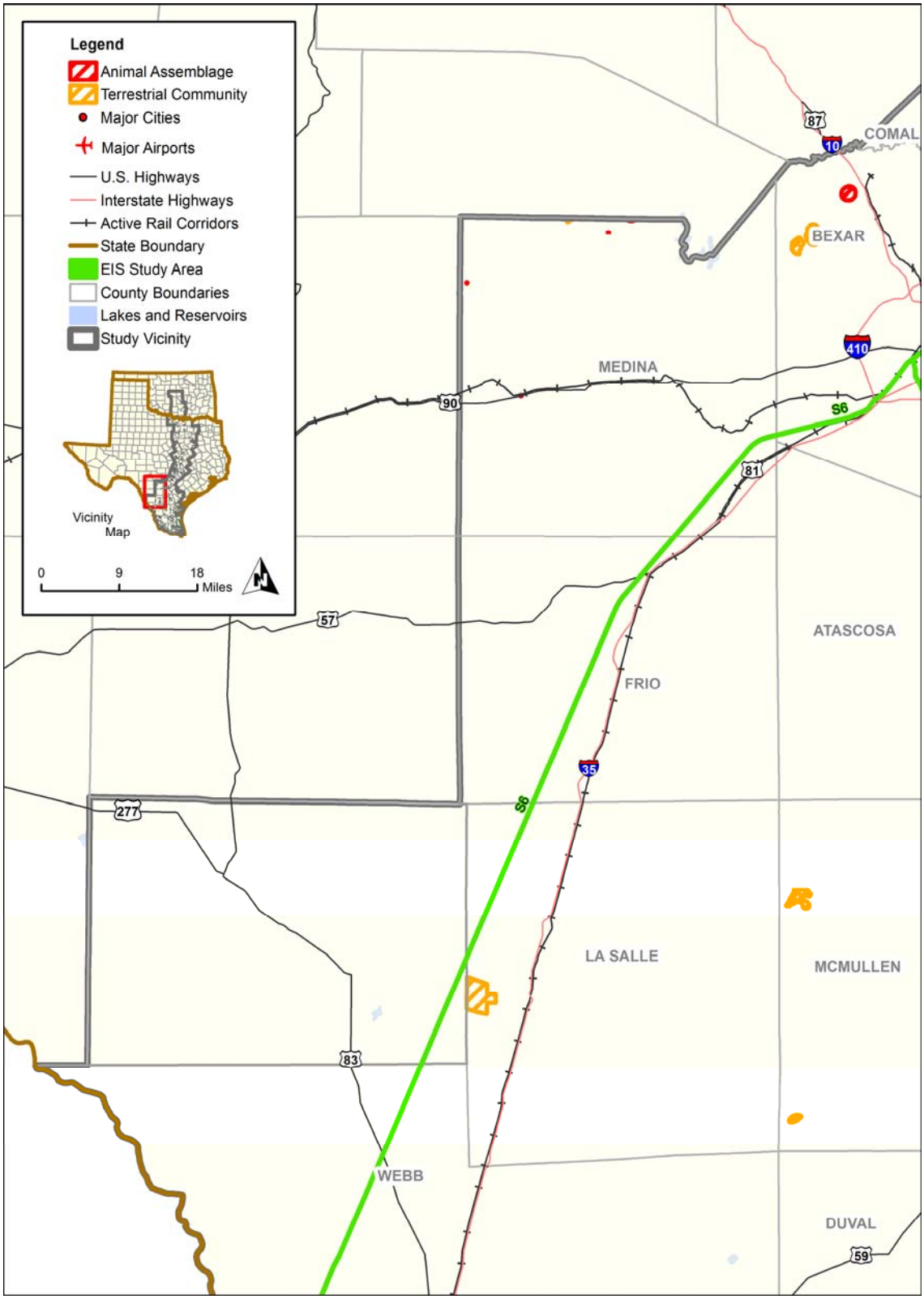

Figure 3.5-8: Wildlife Corridors/Assemblages and Communities – Southern Section Alternatives

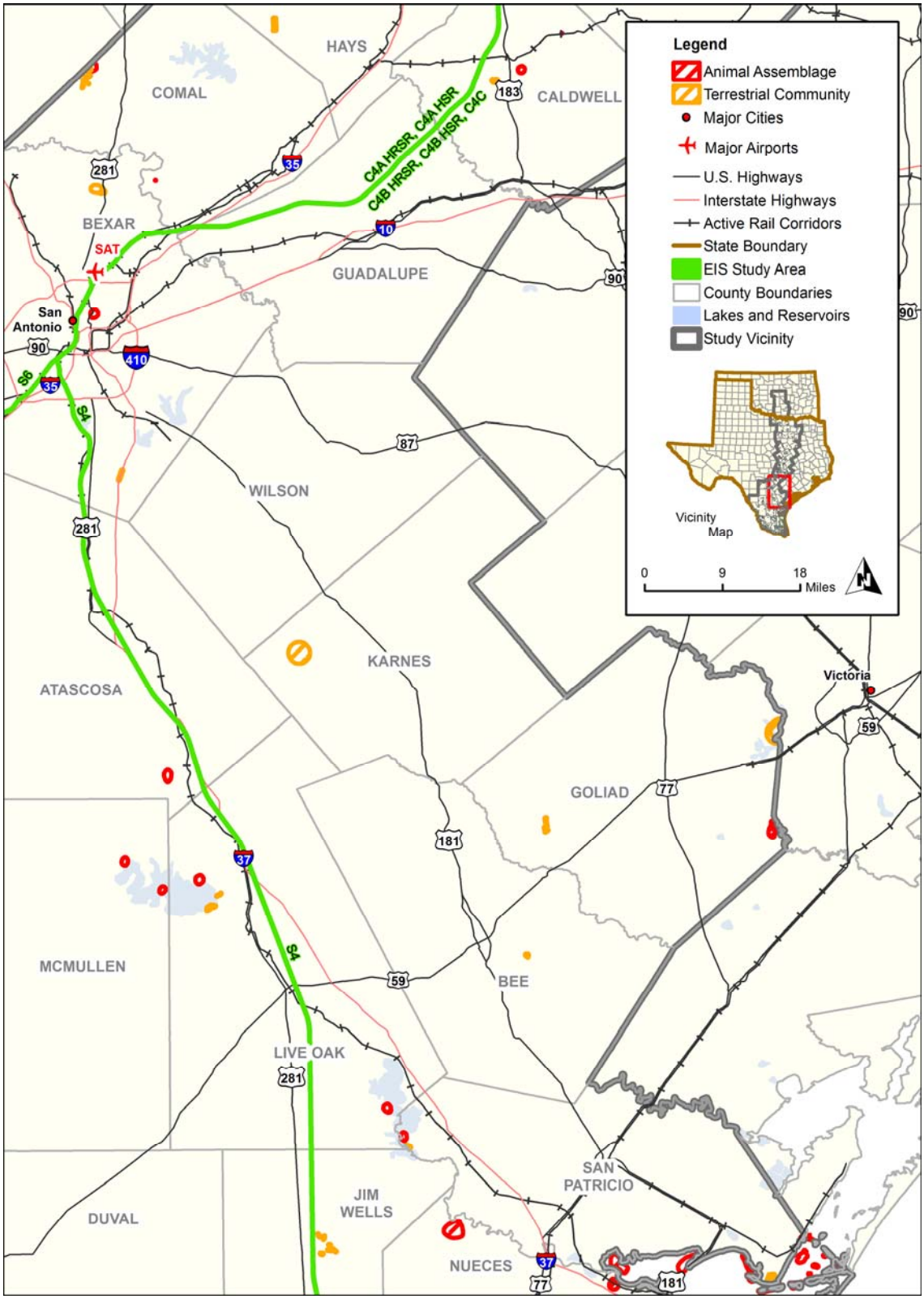

Figure 3.5-9: Wildlife Corridors/Assemblages and Communities – Southern Section Alternatives

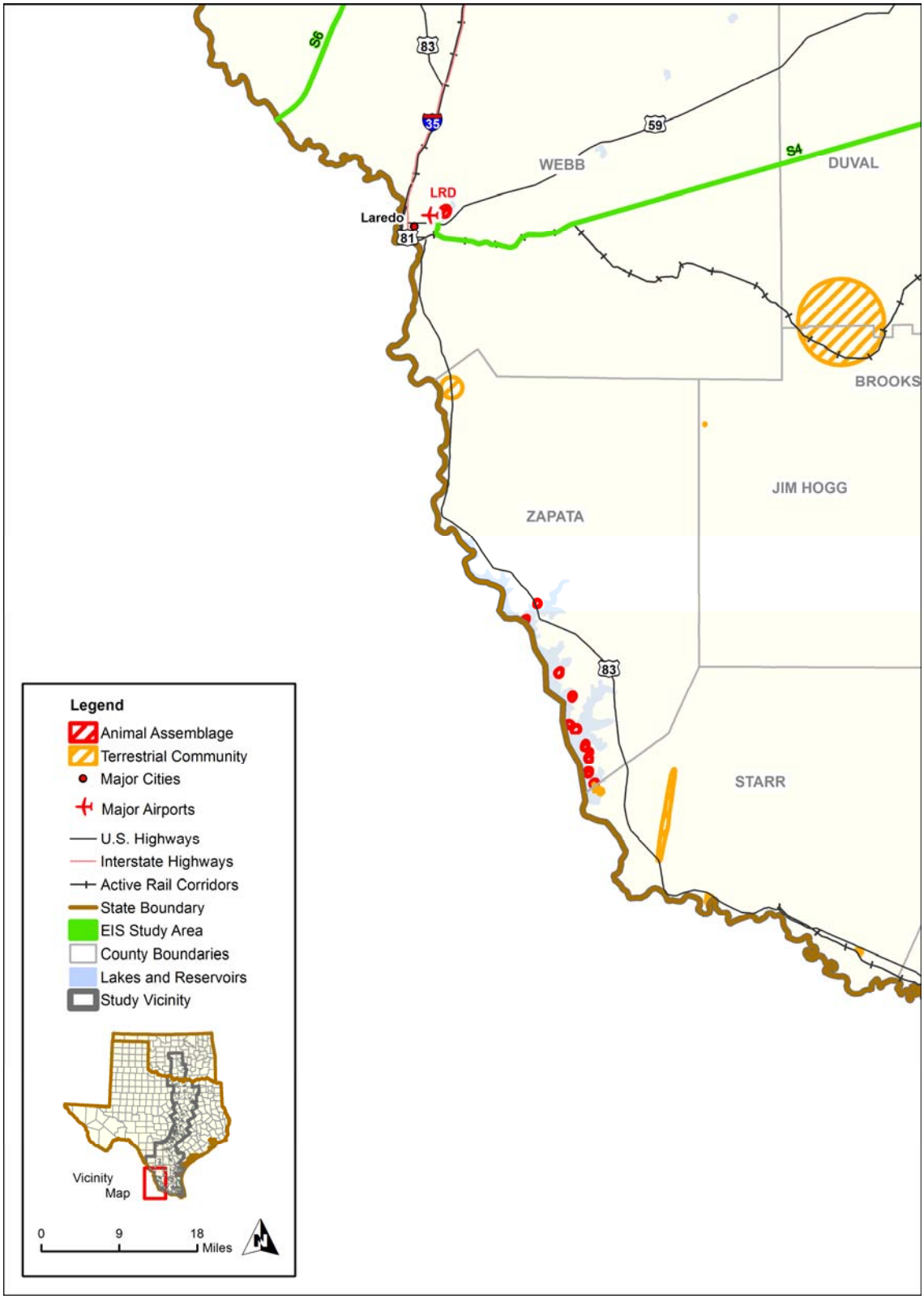

Figure 3.5-10: Wildlife Corridors/Assemblages and Communities – Southern Section Alternatives

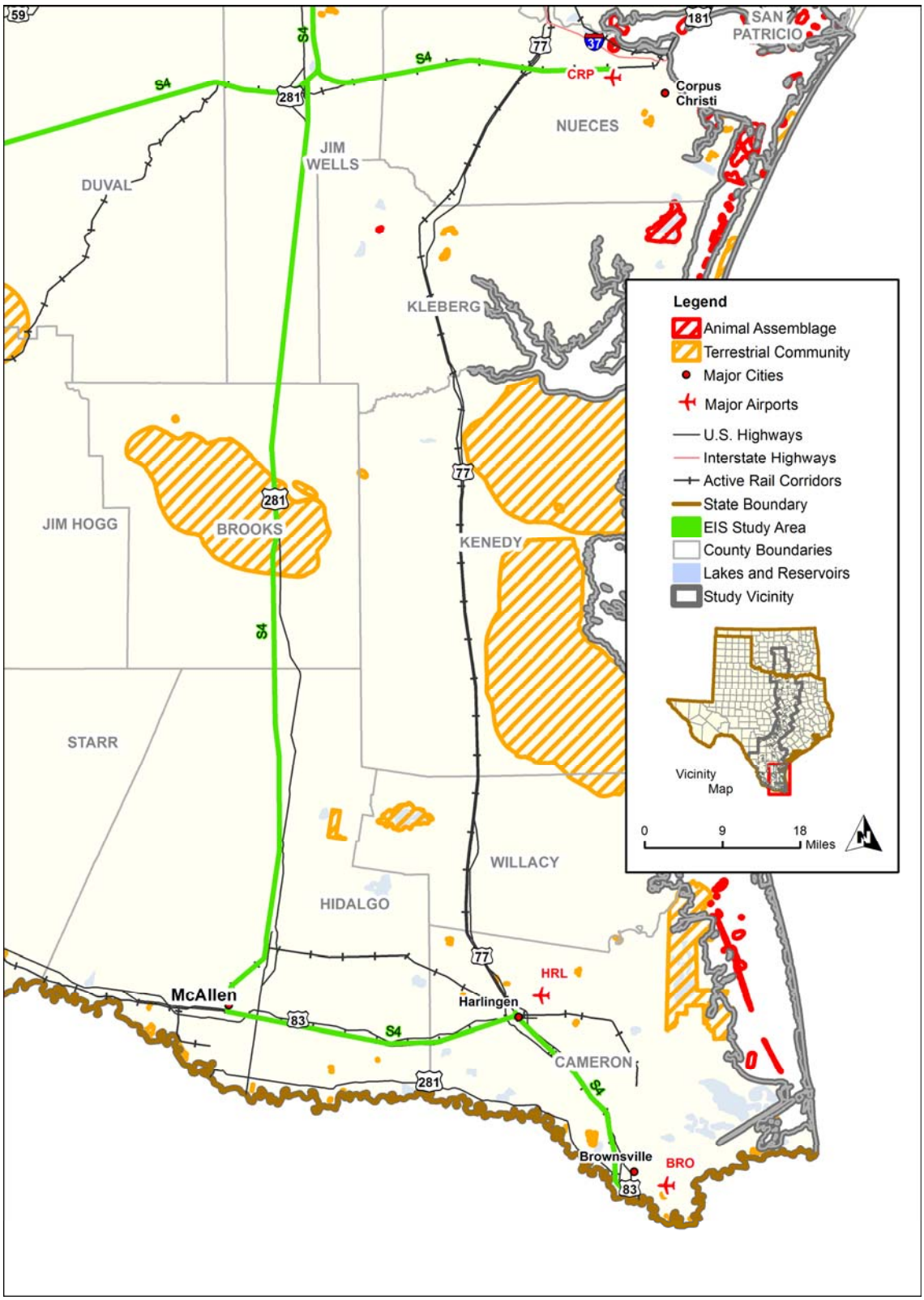

Figure 3.5-11: Wildlife Corridors/Assemblages and Communities – Southern Section Alternatives

3.5.3.3.3 REAP Composite Scores

As identified in Table 3.5-12, potentially 15 percent (3,659 acres) of the total acreage of the EIS Study Area for Alternative S4 is composed of higher ecological importance/value land coverage areas (Ecological Importance Rankings of 1, 10, and 25). As shown on Figures 3.5-12 through 3.5-15, the majority of lands with higher ecological importance for Alternative S4 are near Brooks, Live Oak, Duval, and Webb counties.

Table 3.5-12: Acres of Potential REAP Composite Ranking Land Coverages – Alternative S4

Ecological Importance Rank	Alternative S4	
	Acres of Potential REAP Ecological Importance Ranking Types within EIS Study Area	Total Area of EIS Study Area (High Value vs. All Other Land Types)
1	21	15% (3,659 acres)
10	1,088	
25	2,550	
50	4,589	85% (21,533 acres)
100	16,943	
Total (acres)[a]	**25,192**	-

[a] Acreage totals may be slightly different because values were rounded to the nearest whole number.

Source: EPA (2011).

As identified in Table 3.5-13, potentially 21 percent (1,796 acres) of the total acreage of the EIS Study Area for Alternative S6 Higher-Speed Rail is composed of higher ecological importance/value land coverage areas (Ecological Importance Rankings of 1, 10, and 25). As shown on Figures 3.5-12 through 3.5-15, most lands with higher ecological importance for Alternative S6 Higher-Speed Rail are in areas near Dimmit and Webb counties.

Table 3.5-13: Acres of Potential REAP Composite Ranking Land Coverages – Alternative S6 Higher-Speed Rail

Ecological Importance Rank	Alternative S6 Higher-Speed Rail	
	Acres of Potential REAP Ecological Importance Ranking Types Within EIS Study Area	Total Area of EIS Study Area (High Value vs. All Other Land Types)
1	31	21% (1,796 acres)
10	538	
25	1,227	
50	2,389	79% (6,901 acres)
100	4,469	
Total (acres)[a]	**8,653**	-

[a] Acreage totals may be slightly different because values were rounded to the nearest whole number.

Source: EPA (2011).

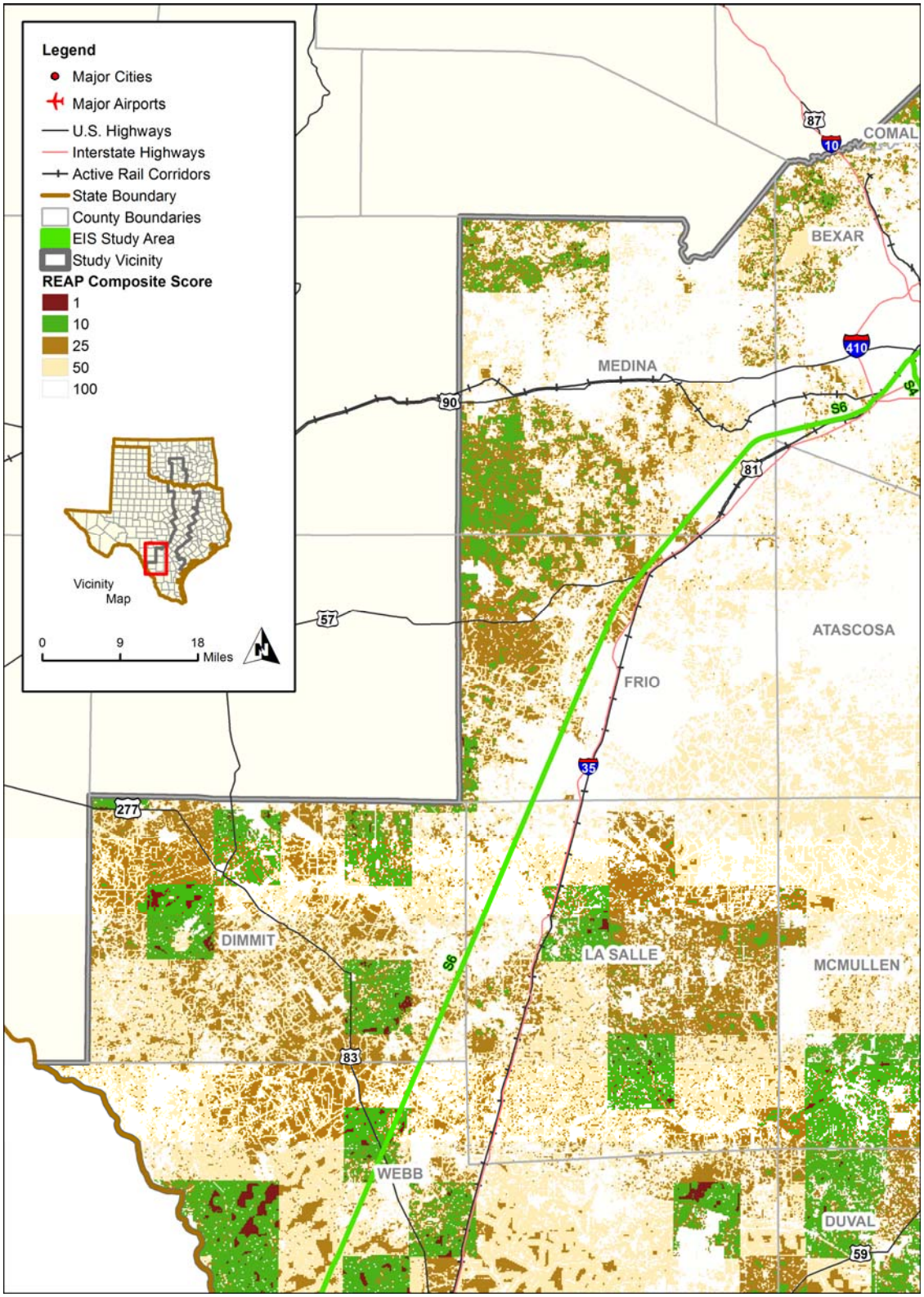

Figure 3.5-12: REAP Composite Scores – Southern Section Alternatives

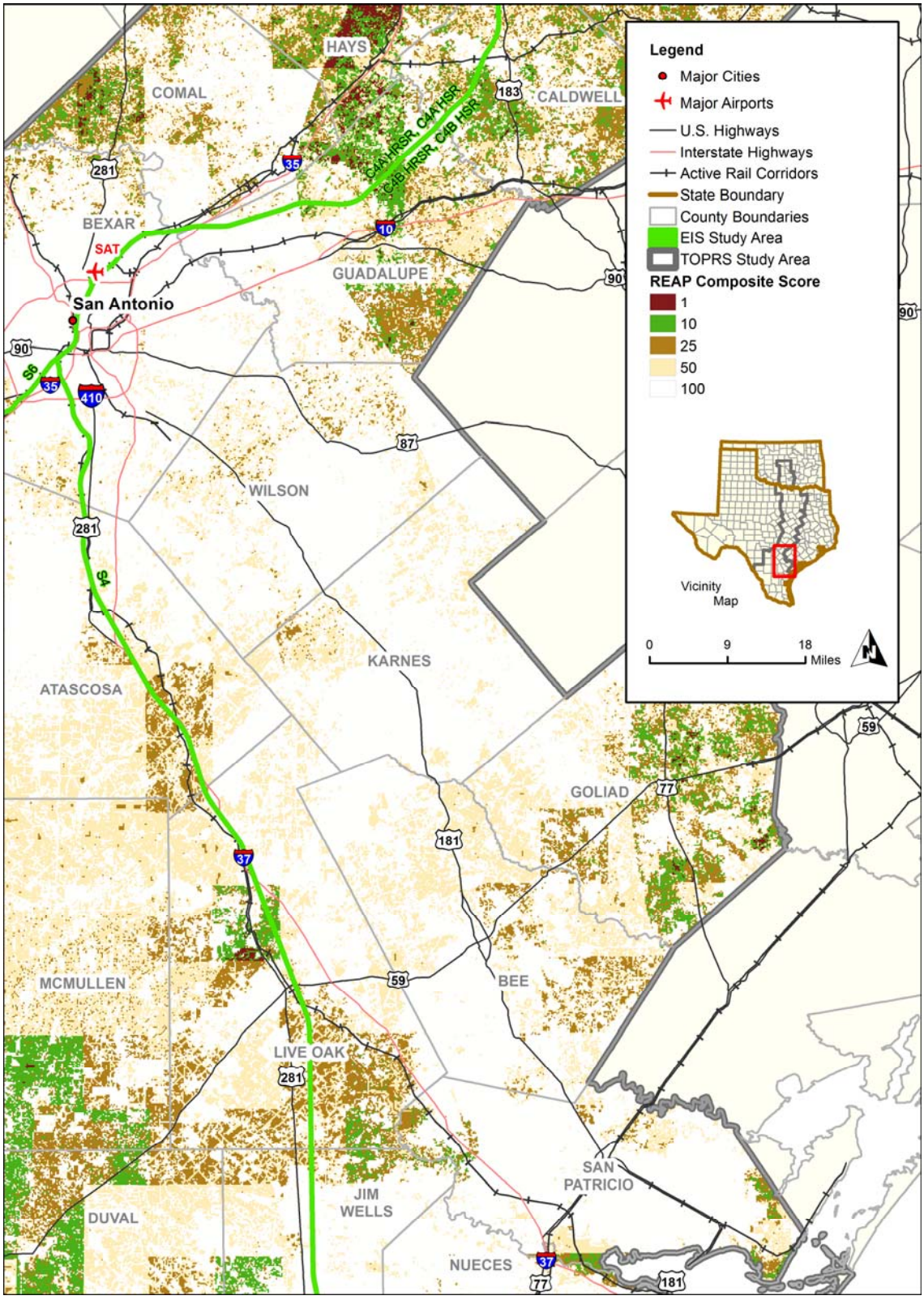

Figure 3.5-13: REAP Composite Scores – Southern Section Alternatives

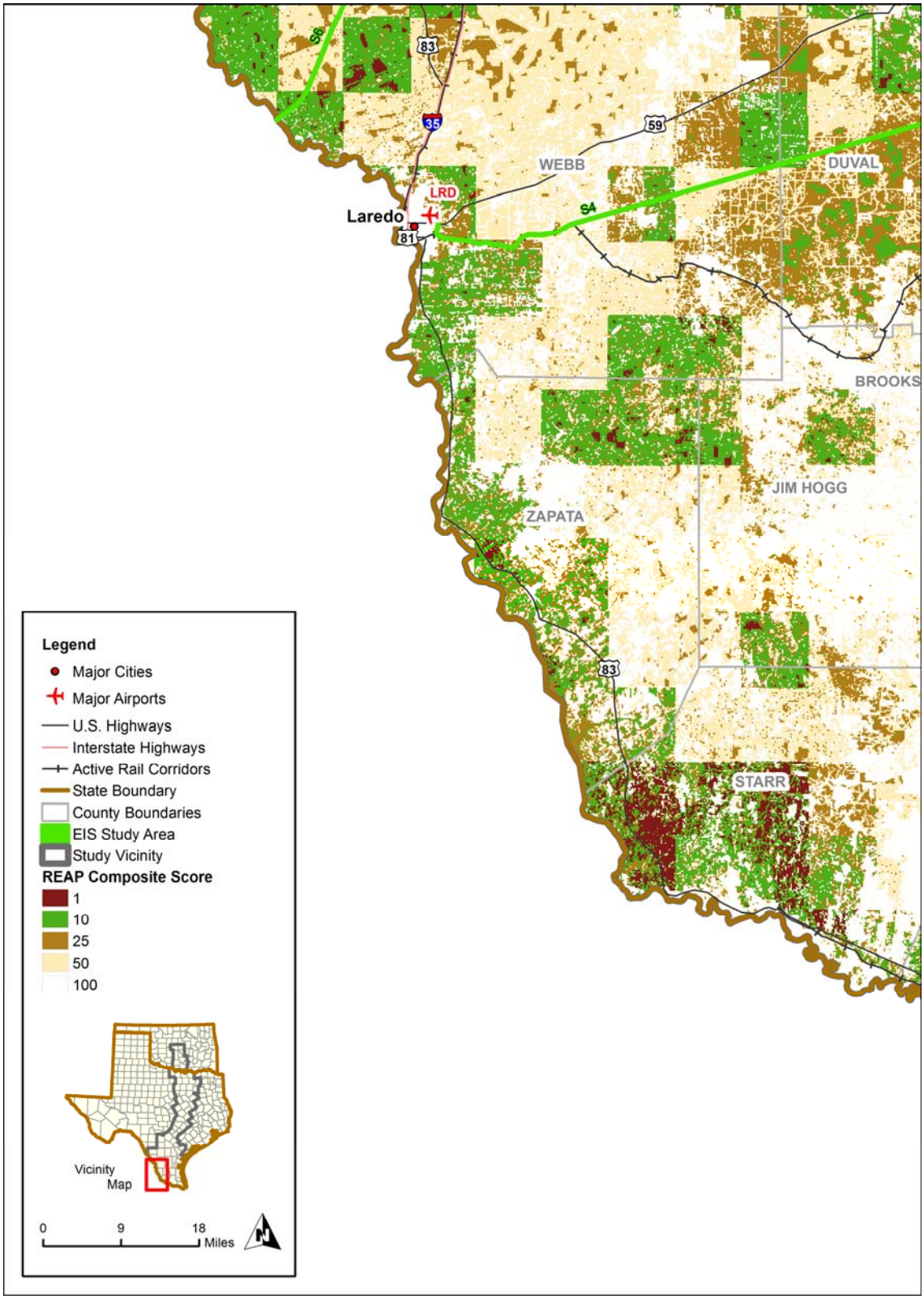

Figure 3.5-14: REAP Composite Scores – Southern Section Alternatives

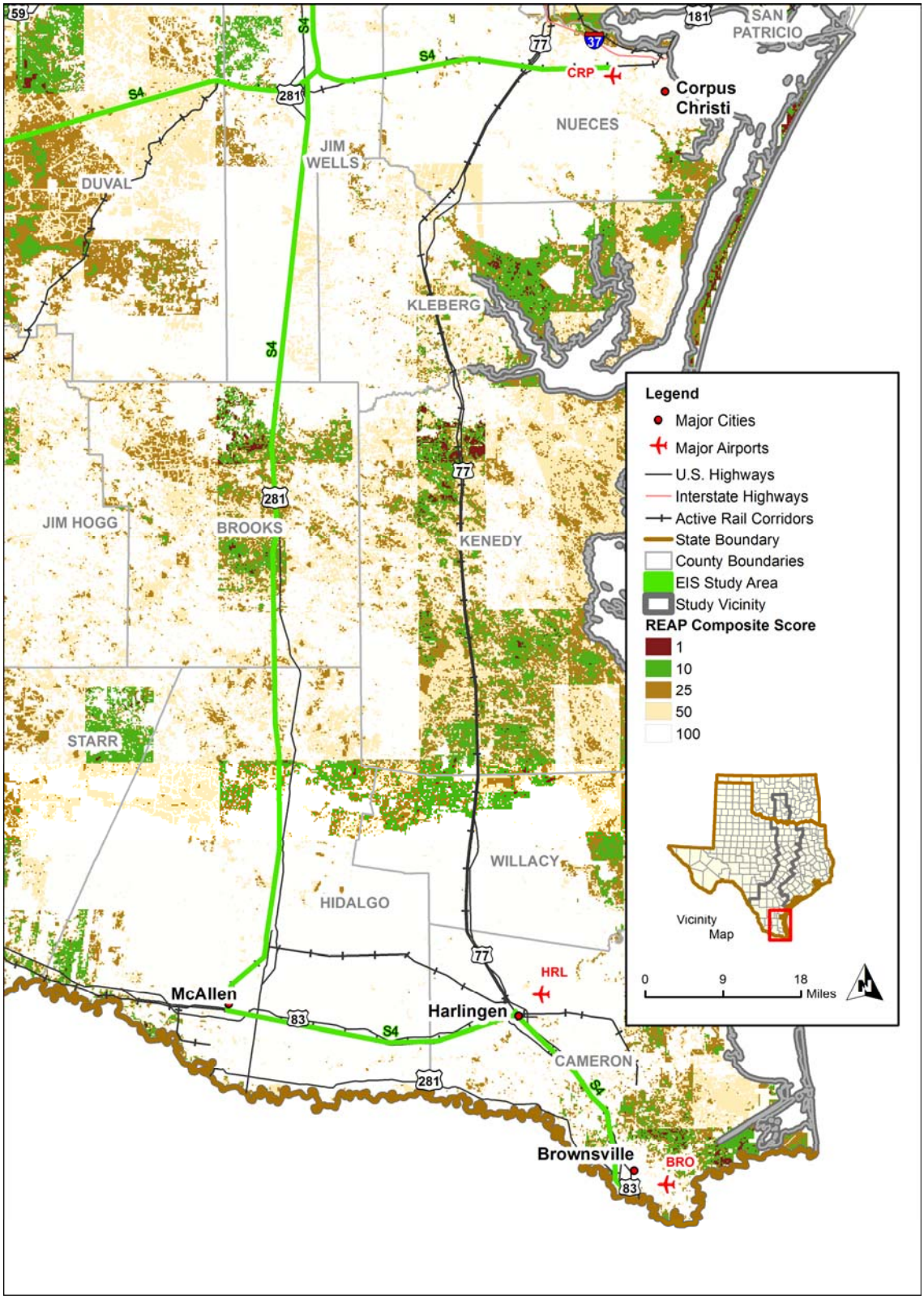

Figure 3.5-15: REAP Composite Scores – Southern Section Alternatives

3.5.4 Environmental Consequences

3.5.4.1 Overview

Effects from the proposed alternatives and associated infrastructure can be broadly classified into construction and operations effects. Long-term or permanent effects and short-term effects on natural ecological systems and wildlife would be anticipated as a result of constructing any of the build alternatives. Long-term or permanent effects on vegetation, including sensitive plant communities, would occur from permanent structures (e.g., track, stations), clearing for construction, staging of equipment, and stockpiling of soil, ballast, or other construction materials. Short-term effects on adjacent habitats and their corresponding wildlife would be caused by noise, vibration, and air pollution from construction equipment and activities. In general, conventional rail would have fewer construction effects on natural because it would follow existing rail alignments, with minimal new right-of-way. Higher-speed and high-speed rail service types would have more effects during construction because some or all of the alignment would be constructed in a new corridor.

Operations effects on wildlife for conventional and higher-speed rail would include making wildlife movement vulnerable to an increased risk of strikes from the additional rail traffic along the routes. High-speed rail would be completely fenced; therefore, the risk of strikes would be lower for this service type. Additionally, construction of new tracks on rail bed elevated above the floodplain could create barriers to wildlife movement. High-speed rail would be fully grade-separated; therefore, more passages for wildlife would likely be included.

3.5.4.2 No Build Alternative

The No Build Alternative, as described in Chapter 2 (Section 2.2) and the introduction to Chapter 3, is used as the baseline for comparison. The No Build Alternative would not implement the Program of rail improvements associated with this service-level evaluation and would not meet the purpose and the need of the Program. Therefore, the No Build Alternative is anticipated to have the least effect on natural ecosystems and wildlife.

3.5.4.3 Northern Section: Oklahoma City to Dallas and Fort Worth

3.5.4.3.1 Alternative N4A Conventional

National Land Cover Database – Land Cover Type Effects

Alternative N4A Conventional would follow the BNSF rail alignment and the existing TRE tracks. Therefore, this alternative would likely be constructed in areas that were disturbed by prior rail development.

The percentage of total non-developed land covers within the EIS Study Area represents a negligible effect on undeveloped land when compared with the No Build Alternative. Most effects from this alternative would be during construction within existing rights-of-way that were disturbed by prior rail development.

The potential operations effects associated with Alternative N4A Conventional with regard to developed land covers within the EIS Study Area would be considered negligible as the service would operate within existing rights-or-way.

3.5.4.3.2 Wildlife Corridors and Assemblages and Sensitive Plant Community Effects

The potential construction effects of Alternative N4A Conventional on wildlife corridors and assemblages or sensitive plant communities would be negligible because this alternative would be constructed within existing rights-of-way that have been disturbed by prior rail development.

Operations effects for Alternative N4A Conventional would be moderate because this alternative would not likely be fenced, making wildlife movement vulnerable to an increased risk for strikes from the additional rail traffic along the route. Such effects would have a noticeable effect on wildlife, but the effects could be reduced by the use of best management practices (BMPs) (see Section 3.5.5, Avoidance, Minimization, and Mitigation Strategies).

REAP Composite Score Effects

Most lands with higher ecological importance are in areas just south of Norman, Oklahoma, near Murray County as the route passes through Love and Grayson counties. All other areas of Alternative N4A Conventional consist predominantly of lower ecological value land types, and in these areas, the alternative would not substantially affect areas of higher ecological importance within the EIS Study Area. The potential effects associated with construction and operation of Alternative N4A Conventional on higher ecological importance/value land coverage types would be negligible, as most effects from this alternative would be during construction within existing rights-of-way that were disturbed by prior rail development

3.5.4.4 Central Section: Dallas and Fort Worth to San Antonio

3.5.4.4.1 Alternative C4A Higher-Speed Rail

National Land Cover Database – Land Cover Type Effects

The northern extent of Alternative C4A Higher-Speed Rail, near Dallas and Fort Worth, would follow the TRE between Fort Worth and Dallas, then continue south on the BNSF alignment; however, most of Alternative C4A Higher-Speed Rail, starting at Waxahachie, would follow an alignment outside existing transportation corridors. Because of the high percentage of total non-developed land cover types within the EIS Study Area, and because most of the alternative would follow an alignment outside existing transportation corridors, the alternative could have a noticeable, inevitable effect on non-developed land within the EIS Study Area. The potential construction effects of Alternative C4A Higher-Speed Rail on non-developed land cover types within the EIS Study Area would be substantial compared to the No Build Alternative because construction effects on vegetation outside existing transportation corridors are considered long-term or permanent.

The potential operations effects associated with Alternative C4A Higher-Speed Rail with regard to developed land covers within the EIS Study Area would be considered moderate because of disruption of wildlife species from noise and vibration from the additional rail traffic along the route.

Wildlife Corridors and Assemblages and Sensitive Plant Community Effects
The majority of animal assemblages and special terrestrial communities identified within the EIS Study Area are located in the portions of the alternative outside existing transportation corridors. Therefore, the potential construction effects of Alternative C4A Higher-Speed Rail on wildlife corridors, animal assemblages and terrestrial communities would be substantial when compared with the No Build Alternative as construction of the portions of the alternative outside existing transportation corridors would have a noticeable, inevitable effect on these resources within the EIS Study Area.

The potential operations effects for Alternative C4A Higher-Speed Rail would be moderate because this alternative would not likely be fenced, making wildlife movement vulnerable to an increased risk for strikes as a result of the additional rail traffic along the route. Such effects would have a noticeable effect on wildlife, but the effects could be reduced by the use of BMPs (see Section 3.5.5, Avoidance, Minimization, and Mitigation Strategies).

REAP Composite Score Effects
The percentages of the total land coverage of the EIS Study Area composed of higher ecological importance/value land coverage areas for the alternative represent a substantial effect when compared to the No Build Alternative. Construction of the portions of the alternative outside existing transportation corridors would have a noticeable, inevitable effect on lands with higher ecological importance within the EIS Study Area.

The potential operations effects associated with Alternative C4A Higher-Speed Rail with regard to higher ecological importance/value land coverage areas within the EIS Study Area would be considered moderate because of potential disruption of wildlife species from noise and vibration from the additional rail traffic along the route.

3.5.4.4.2 Alternative C4A High-Speed Rail

National Land Cover Database – Land Cover Type Effects
Potential effects on NLCD land cover types would be the same as those discussed for Alternative C4A Higher-Speed Rail, because both service types share the same route. The construction effects would be substantial and the operations effects would be moderate.

Wildlife Corridors and Assemblages and Sensitive Plant Community Effects
Potential construction effects on wildlife corridors and assemblages and sensitive plant communities would be the same as those discussed for Alternative C4A Higher-Speed Rail (substantial) because both service types share the same route. Alternative C4A High-Speed Rail would likely be fully fenced, lessening the likelihood of strikes when compared to the higher-speed rail option. However, Alternative C4A High-Speed Rail would have a higher potential for operations effects overall on wildlife corridors and assemblages within the EIS Study Area than the higher-speed rail option as the noise and vibration generated by high-speed rail would travel farther than the noise generated by higher-speed rail. Overall, the potential operations effects on wildlife corridors and assemblages and sensitive plant communities would be moderate.

REAP Composite Score Effects

The percentage of the total land coverage composed of higher ecological importance/value land coverage area would be the same as Alternative C4A Higher-Speed Rail because both service types share the same route. The construction effects would be substantial and the operations effects would be moderate.

3.5.4.4.3 Alternative C4B Higher-Speed Rail

National Land Cover Database – Land Cover Type Effects

The percentages of total non-developed land covers within the EIS Study Area represent substantial potential effects on non-developed land. The northern extent of Alternative C4B Higher-Speed Rail would follow a new elevated high-speed alignment in the IH-30 median between Fort Worth and Dallas and follow an alignment outside existing transportation corridors starting at Arlington and continuing south to Hillsboro. Construction of the portions of the alternative outside existing transportation corridors would have a noticeable, inevitable effect on non-developed land within the EIS Study Area. The potential construction and operations effects associated with Alternative C4B Higher-Speed Rail with regard to non-developed land covers within the EIS Study Area would be similar to those described for Alternative C4A Higher-Speed Rail because both alternatives share the same route outside existing transportation corridors. The construction effects would be substantial and the operations effects would be moderate.

Wildlife Corridors and Assemblages and Sensitive Plant Community Effects

The animal assemblages and special terrestrial communities identified within the EIS Study Area, for the majority, are in the portions of the alternative outside existing transportation corridors. Therefore, the potential construction effects associated with construction of Alternative C4B Higher-Speed Rail would be substantial and would have a noticeable, inevitable effect on these resources within the EIS Study Area. The effects would be similar to those described for Alternative C4A Higher-Speed Rail because both alternatives share the same route outside existing transportation corridors. Operations effects would have a noticeable and inevitable effect of wildlife, but the effects could be mitigated by the use of BMPs as described for Alternative C4A Higher-Speed Rail, therefore operations effects would be moderate.

REAP Composite Score Effects

The percentages of the total land coverage of the EIS Study Area composed of higher ecological importance/value land coverage areas for the alternative represent a substantial potential effect. Construction of the portions of the alternative outside existing transportation corridors would have a noticeable, inevitable effect on lands with higher ecological importance within the EIS Study Area.

The potential operations effects associated with Alternative C4B Higher-Speed Rail with regard to higher ecological importance/value land coverage areas within the EIS Study Area would be considered moderate because of potential disruption of wildlife species from noise and vibration from the additional rail traffic along the route.

3.5.4.4.4 Alternative C4B High-Speed Rail

National Land Cover Database – Land Cover Type Effects

Potential effects on land cover types would be the same as those discussed for Alternative C4B Higher-Speed Rail, because both service types share the same route. The construction effects would be substantial and the operations effects would be moderate.

Wildlife Corridors and Assemblages and Sensitive Plant Community Effects

Potential construction effects on wildlife corridors and assemblages and sensitive plant communities would be the same as those discussed for Alternative C4B Higher-Speed Rail (substantial), because both service types share the same route. Alternative C4B High-Speed Rail would likely be fully fenced, lessening the likelihood of strikes when compared to the higher-speed rail option. However, Alternative C4B High-Speed Rail would have a higher potential for operations effects on wildlife corridors and assemblages because the noise and vibration generated by high-speed rail would travel farther than the noise generated by higher-speed rail. Overall, the potential operations effects on wildlife corridors and assemblages and sensitive plant communities would be moderate.

REAP Composite Score Effects

The percentage of the total land coverage composed of higher ecological importance/value land coverage area would be the same as Alternative C4B Higher-Speed Rail because both service types share the same route. The construction effects would be substantial and the operations effects would be moderate.

3.5.4.4.5 Alternative C4C Higher-Speed Rail

National Land Cover Database – Land Cover Type Effects

The northern extent of Alternative C4C Higher-Speed Rail, near Dallas and Fort Worth, would follow the TRE between Fort Worth and Dallas, then continue south on the BNSF alignment; however, the majority of the alternative, starting at Waxahachie, would follow an alignment outside existing transportation corridors. Because of the high percentages of total non-developed land covers within the EIS Study Area, and because most of the alternative would follow an alignment outside existing transportation corridors, the alternative could have a noticeable, inevitable effect on non-developed land within the EIS Study Area. The potential construction and operations effects associated with C4C Higher-Speed Rail would be similar to those described for Alternative C4A Higher-Speed Rail, because both alternatives share the same route outside existing transportation corridors. The construction effects would be substantial and the operations effects would be moderate.

Wildlife Corridors and Assemblages and Sensitive Plant Community Effects

The animal assemblages and special terrestrial communities identified within the EIS Study Area are, for the majority, in the portions of the alternative outside existing transportation corridors. Therefore, the potential effects of construction of Alternative C4C Higher-Speed Rail would be substantial because construction of the portions of the alternative outside existing transportation corridors would have a noticeable, inevitable effect on these resources within the EIS Study Area.

The potential construction and operations effects associated with C4C Higher-Speed Rail with regard to wildlife corridors and assemblages and sensitive plant communities within the EIS Study Area would be similar to those described for Alternative C4A Higher-Speed Rail because both alternatives share the same route outside existing transportation corridors. Operations effects would have a noticeable and inevitable effect of wildlife, but the effects could be mitigated by the use of BMPs, as described for Alternative C4A Higher-Speed Rail, therefore operations effects would be moderate.

REAP Composite Score Effects

The percentages of the total land coverage of the EIS Study Area composed of higher ecological importance/value land coverage areas for Alternative C4C Higher-Speed Rail represent a substantial potential effect. Construction of the portions of the alternative outside existing transportation corridors would have a noticeable, inevitable effect on lands with higher ecological importance within the EIS Study Area.

The potential operations effects associated with Alternative C4C Higher-Speed Rail with regard to higher ecological importance/value land coverage areas within the EIS Study Area would be considered moderate because of potential disruption of wildlife species from noise and vibration from the additional rail traffic along the route.

3.5.4.4.6 Alternative C4C High-Speed Rail

National Land Cover Database – Land Cover Type Effects

Potential effects on land cover types would be the same as those discussed for Alternative C4C Higher-Speed Rail, because both service types share the same route. The construction effects would be substantial and the operations effects would be moderate.

Wildlife Corridors and Assemblages and Sensitive Plant Community Effects

Potential construction effects on wildlife corridors and assemblages and sensitive plant communities would be the same as those discussed for the Alternative C4C Higher-Speed Rail (substantial), because both service type options share the same route. Alternative C4C High-Speed Rail would likely be fully fenced, reducing the likelihood of strikes when compared to the higher-speed rail option. However, Alternative C4C High-Speed Rail would have a higher potential for operations effects overall on wildlife corridors and assemblages within the EIS Study Area than the higher-speed rail option because the noise and vibration generated by high-speed rail would travel farther than the noise generated by higher-speed rail. Overall, the potential operations effects on wildlife corridors and assemblages and sensitive plant communities would be moderate.

REAP Composite Score Effects

The percentage of the total land coverage composed of higher ecological importance/value land coverage area would be the same as Alternative C4C Higher-Speed Rail because both service types share the same route. The construction effects would be substantial and the operations effects would be moderate.

3.5.4.5 Southern Section: San Antonio to South Texas

3.5.4.5.1 Alternative S4 Higher-Speed Rail

National Land Cover Database – Land Cover Type Effects

Alternative S4 Higher-Speed Rail would have a moderate potential effect on non-developed land. Although portions of Alternative S4 Higher-Speed Rail would be constructed in new alignments outside existing transportation corridors, significant portions of the alternative would likely be constructed within existing routes (e.g., Kansas City Southern Railway and revitalization of abandoned tracks) that have been disturbed by prior rail development, mitigating potential effects on resources.

The potential operations effects associated with Alternative S4 Higher-Speed Rail with regard to developed land covers within the EIS Study Area would be considered moderate as significant portions of the alternative would operate within existing rights-or-way.

Wildlife Corridors and Assemblages and Sensitive Plant Community Effects

The large area of Little Bluestem-Indiangrass terrestrial community within the EIS Study Area for Alternative S4 Higher-Speed Rail is located in Brooks County, in an area that would be constructed on an existing abandoned rail and in areas that were disturbed by prior rail development. The potential effects of construction and operation of Alternative S4 Higher-Speed Rail on wildlife corridors and assemblages or sensitive plant communities would be negligible. This portion of Alternative S4 Higher-Speed Rail would be constructed within existing rights-of-way in the areas of this resource and would not create new effects on sensitive communities.

REAP Composite Score Effects

The portions of Alternative S4 Higher-Speed Rail that cross Brooks and Live Oak counties would be constructed on existing rights-of-way and would have a negligible effect on lands with higher ecological importance within the EIS Study Area. However, construction of the portions of Alternative S4 Higher-Speed Rail outside existing transportation corridors, especially near Duval and Webb counties, would represent a substantial effect. Overall, the construction of Alternative S4 Higher-Speed Rail would have a substantial effect (noticeable, inevitable effect) on lands with higher ecological importance within the EIS Study Area.

The potential operations effects associated with Alternative S4 Higher-Speed Rail with regard to higher ecological importance/value land coverage areas within the EIS Study Area would be considered moderate because of potential disruption of wildlife species from noise and vibration from the additional rail traffic along the route.

3.5.4.5.2 Alternative S6 Higher-Speed Rail

National Land Cover Database – Land Cover Type Effects

Alternative S6 Higher-Speed Rail would have a substantial potential effect on non-developed land within the EIS Study Area because this alternative would follow a new direct high-speed corridor outside existing transportation corridors from San Antonio to a station near the Laredo-Columbia

Solidarity Bridge. Construction of this alternative would have a noticeable, inevitable effect on non-developed land within the EIS Study Area. The potential construction effects associated with Alternative S6 Higher-Speed Rail on non-developed land covers within the EIS Study Area would be substantial because construction effects on vegetation outside existing transportation corridors would be long-term or permanent.

The potential operations effects associated with Alternative S6 Higher-Speed Rail on developed land covers within the EIS Study Area would be moderate because of disruption of wildlife species from noise and vibration from the rail traffic along the route. However, the route outside existing transportation corridors could be designed with alternative pathways or undercrossings to maintain wildlife migratory paths or corridors. In addition, the majority of effects on non-developed land covers would be during construction of the alternative.

Wildlife Corridors and Assemblages and Sensitive Plant Community Effects

No wildlife corridors and assemblages and sensitive plant communities were identified within the EIS Study Area for Alternative S6 Higher-Speed Rail. Therefore, construction and operation effects on wildlife corridors and assemblages and sensitive plant communities would be negligible.

REAP Composite Score Effects

Alternative S6 Higher-Speed Rail would have a substantial effect on lands with higher ecological importance both during construction and operation because construction of this new alignment outside existing transportation corridors would have a noticeable, inevitable effect on resources.

3.5.4.5.3 Alternative S6 High-Speed Rail

National Land Cover Database – Land Cover Type Effects

Potential effects on land cover types would be the same as those discussed for Alternative S6 Higher-Speed Rail, because both service types share the same route. The construction effects would be substantial and the operations effects would be moderate.

Wildlife Corridors and Assemblages and Sensitive Plant Community Effects

Potential construction effects on wildlife corridors and assemblages and sensitive plant communities would be the same as those discussed for Alternative S6 Higher-Speed Rail because both service types share the same route. Because no wildlife corridors and assemblages and sensitive plant communities were identified within the EIS Study Area, construction and operation effects on wildlife corridors and assemblages and sensitive plant communities would be negligible.

REAP Composite Score Effects

The percentage of the total land coverage composed of higher ecological importance/value land coverage area would be the same as Alternative S6 Higher-Speed Rail and would represent a substantial potential effect during construction and operation, because both service types share the same route.

3.5.4.6 Summary of Potential Effects

The construction and operation of the build alternatives would affect natural ecological systems and wildlife to some degree. Construction of Alternative N4A Conventional would have a negligible effect as the alternative would follow existing rail alignments, with minimal new right-of-way. However, from an operations standpoint, the alternative would not likely be fenced, making wildlife movement vulnerable to an increased risk for strikes from the additional rail traffic that would occur.

The construction of the Central Section build alternatives would have a substantial effect on natural ecological systems and wildlife as most alternatives would be constructed in new rights-of-way, outside of existing transportation corridors, and also bisect known wildlife corridors and assemblages and sensitive plant communities. Operational effects on wildlife for the Central Section higher-speed rail alternatives would be similar to conventional rail service type, as they would not likely be fenced. Conversely, high-speed rail alternatives would be completely fenced and fully grade-separated. Therefore, the risk of strikes would be lower. The high-speed rail alternatives could also be designed with passages for wildlife, further mitigating operational effects. However, the Central Section high-speed rail alternatives would have higher overall potential for effects than the higher-speed rail alternatives, because noise and vibration generated by high-speed rail would travel farther than that generated by higher-speed rail.

The Southern Section build alternatives would have a moderate to substantial effect, with either portions of the alternative constructed outside existing transportation corridors (Alternative S4 Higher-Speed Rail), or, in the case of the S6 alternatives, it would be constructed in a new, direct route, composed of approximately 92 percent non-developed land covers outside existing transportation corridors.

Table 3.5-14 summarizes the qualitative assessment of potential effects (negligible, moderate, or substantial) for the alternatives and also includes measures that could be taken to avoid or reduce the potential effects of the alternatives. Acreages listed below are not the actual areas of effect associated with construction and operation of any of the alternatives. This service-level analysis uses the 500-foot EIS Study Area to determine the types of resources that may be affected and, more importantly, the relative magnitude of resources that may be affected. Some alternatives could be built alone or combined with other section alternatives. In addition, more than one alternative in the Central Section and Southern Section could be built in the future, because the alternatives provide different service type options for the independent destinations. Details about how alternatives might connect, as well as measures to reduce effects, would be analyzed at the project-level EIS phase.

3.5.5 Avoidance, Minimization, and Mitigation Strategies

Avoidance and minimization of project-level effects would be incorporated when feasible. If effects cannot be avoided or minimized, mitigation strategies would be implemented. Mitigation measures to reduce or eliminate effects on sensitive habitats and species would be coordinated with federal

and state agencies. To minimize construction effects and minimize disturbance of terrestrial and aquatic habitats and wildlife, BMPs would be used during construction and operations. BMPs would include but are not limited to the following:

- Construct multiple and varying crossing structures at a wildlife crossing point to provide connectivity for species likely to use a given area.
- Determine and construct the appropriate number, spacing, and location of crossing structures based on species-specific information.
- Monitor structures for obstructions, such as detritus or silt blockages, that impede movement.
- Manage human activity near crossing structures, with use of measures such as fencing and signage.
- Routes outside existing transportation corridors could be designed with alternative pathways or undercrossings to maintain wildlife migratory paths or corridors.

Local ordinances would be followed for erosion, sediment, and stormwater controls during construction to minimize potential effects on aquatic resources. For terrestrial habitats that might be temporarily disturbed by construction, pre-construction conditions or better would be restored once construction is complete.

3.5.6 Subsequent Analysis

Once a preferred alternative is selected, additional GIS-based analysis using tools such as the Ecological Mapping Systems of Texas (EMST) tool and updated TXNDD database will be conducted based on project-level engineered alignment alternatives. In addition, field investigations or surveys will be conducted to determine the likelihood of impacts on sensitive habitats within the EIS Study Area and to determine the extent and type of general and sensitive natural ecological systems and wildlife, including formal biological assessments for protected species and consultation with the U.S. Fish and Wildlife Service, TPWD, and ODWC, as needed. The boundaries of sensitive wildlife corridors, sensitive plant communities, or areas identified as having a higher ecological importance/value land coverage will be confirmed to avoid or minimize effects on these areas. Habitat and species assessments will be conducted in accordance with applicable federal and state regulations.

Table 3.5-14: Summary of Effects on Natural Ecological Systems and Wildlife

Alternative[a]	NLCD		Wildlife Corridors and Assemblages and Sensitive Plant Communities		REAP	
	Construction	Operations	Construction	Operations	Construction	Operations
N4A CONV	**Negligible** ▪ 54% non-developed land covers ▪ Alternative would be located within existing transportation corridors, in areas already disturbed by rail development	**Negligible** ▪ Majority of effects would be during construction ▪ Alternative would be located within existing transportation corridors, in areas already disturbed by rail development	**Negligible** ▪ Wildlife corridors and assemblages outside of proposed route ▪ Alternative would be located within existing transportation corridors, in areas already disturbed by rail development	**Moderate** ▪ Alignment would not likely be fenced, making wildlife movement vulnerable to increased risk for strikes from additional rail traffic ▪ Best management practices could mitigate effects	**Negligible** ▪ 10% of EIS Study Area composed of higher ecological value land coverage ▪ Alternative would be located within existing transportation corridors, in areas already disturbed by rail development	**Negligible** ▪ Majority of effects would be during construction ▪ Alternative would be located within existing transportation corridors, in areas already disturbed by rail development
C4A HrSR	**Substantial** ▪ 62% non-developed land covers ▪ Majority of alternative, starting in Waxahachie, would be located outside existing transportation corridors ▪ Effects on vegetation would be considered long-term or permanent	**Moderate** ▪ Disruption of species from noise and vibration would occur ▪ Alternative could be designed with alternative pathways or undercrossings to maintain wildlife migratory paths or corridors	**Substantial** ▪ Wildlife corridors and assemblages potentially associated with proposed route ▪ Sensitive plant communities ▪ Majority of alternative outside existing transportation corridors ▪ Effects would be considered long-term or permanent	**Moderate** ▪ Disruption of species from noise and vibration would occur ▪ Alternative could be designed with alternative pathways or undercrossings to maintain wildlife migratory paths or corridors	**Substantial** ▪ 18% of EIS Study Area composed of higher ecological value land coverage ▪ Majority of alternative outside existing transportation corridors	**Moderate** ▪ Majority of alternative, starting in Waxahachie, would be located outside existing transportation corridors
C4A HSR	Same as C4A HrSR	Same as C4A HrSR	Same as C4A HrSR	**Moderate** ▪ Would likely be fully fenced, lessening the likelihood of strikes when compared to C4A HrSR ▪ Higher overall potential for effects as noise and vibration generated would travel farther than that generated by HrSR	Same as C4A HrSR	Same as C4A HrSR
C4B HrSR	**Substantial** ▪ 64% non-developed land covers ▪ Majority of alternative outside existing transportation corridors	**Moderate** ▪ Disruption of species from noise and vibration would occur ▪ Alternative could be designed with alternative pathways or undercrossings to maintain wildlife migratory paths or corridors	**Substantial** ▪ Wildlife corridors and assemblages potentially associated with proposed route ▪ Sensitive plant communities ▪ Majority of alternative outside existing transportation corridors	**Moderate** ▪ Disruption of species from noise and vibration would occur ▪ Alternative could be designed with alternative pathways or undercrossings to maintain wildlife migratory paths or corridors	**Substantial** ▪ 18% of EIS Study Area composed of higher ecological value land coverage ▪ Majority of alternative outside existing transportation corridors	**Moderate** ▪ Majority of alternative would be located outside existing transportation corridors
C4B HSR	Same as C4B HrSR	Same as C4B HrSR	Same as C4B HrSR	**Moderate** ▪ Would likely be fully fenced, lessening the likelihood of strikes when compared to C4B HrSR ▪ Higher overall potential for effects as noise and vibration generated would travel farther than that generated by HrSR	Same as C4B HrSR	Same as C4B HrSR

Alternative[a]	NLCD		Wildlife Corridors and Assemblages and Sensitive Plant Communities		REAP	
	Construction	Operations	Construction	Operations	Construction	Operations
C4C HrSR	**Substantial** ▪ 62% non-developed land covers ▪ Majority of alternative outside existing transportation corridors	**Moderate** ▪ Disruption of species from noise and vibration would occur ▪ Alternative could be designed with alternative pathways or undercrossings to maintain wildlife migratory paths or corridors	**Substantial** ▪ Wildlife corridors and assemblages potentially associated with proposed route ▪ Sensitive plant communities ▪ Majority of alternative outside existing transportation corridors	**Moderate** ▪ Disruption of species from noise and vibration would occur ▪ Alternative could be designed with alternative pathways or undercrossings to maintain wildlife migratory paths or corridors	**Substantial** ▪ 15% of EIS Study Area composed of higher ecological value land coverage ▪ Majority of alternative outside existing transportation corridors	**Moderate** ▪ Majority of alternative outside existing transportation corridors
C4C HSR	Same as C4C HrSR	Same as C4C HrSR	Same as C4C HrSR	**Moderate** ▪ Would likely be fully fenced, lessening the likelihood of strikes when compared to C4C HrSR ▪ Higher overall potential for effects as noise and vibration generated would travel farther than that generated by HrSR	Same as C4C HrSR	Same as C4C HrSR
S4 HrSR	**Moderate** ▪ 68% non-developed land covers ▪ Portions of alternative outside existing transportation corridors	**Moderate** ▪ Majority of effects would be during construction ▪ Significant portions of the alternative would be located within existing transportation corridors, in areas already disturbed by rail development	**Negligible** ▪ No reported wildlife corridors or assemblages within EIS Study Area ▪ Sensitive plant communities located in EIS Study Area in portion of alternative within existing transportation corridors	**Negligible** ▪ Majority of effects would be during construction ▪ Alternative would be located within existing transportation corridors, in areas already disturbed by rail development	**Substantial** ▪ 15% of EIS Study Area composed of higher ecological value land coverage ▪ Portions of alternative that consist of higher ecological value land coverage within EIS Study Area located outside existing transportation corridors	**Moderate** ▪ Portions of the alternative outside existing transportation corridors would be located in areas of higher ecological value
S6 HrSR	**Substantial** ▪ 92% non-developed land covers ▪ Alternative would be a new, direct route outside existing transportation corridors	**Moderate** ▪ Disruption of species from noise and vibration would occur ▪ Alternative could be designed with alternative pathways or undercrossings to maintain wildlife migratory paths or corridors	**Negligible** ▪ No reported wildlife corridors or assemblages or sensitive plant communities within EIS Study Area	**Negligible** ▪ No wildlife corridors or assemblages or sensitive plant communities within EIS Study Area ▪ Alternative could be designed with alternative pathways or undercrossings to maintain wildlife migratory paths or corridors	**Substantial** ▪ 21% of EIS Study Area composed of higher ecological value land coverage ▪ Alternative would be a new, direct route outside existing transportation corridors	**Substantial** ▪ The alternative would be located outside existing transportation corridors ▪ Noticeable and inevitable effect on lands of higher ecological value
S6 HSR	Same as S6 HrSR	Same as S6 HrSR	Same as S6 HrSR	**Moderate** ▪ Would likely be fully fenced, lessening the likelihood of strikes when compared to S6 HrSR ▪ Higher overall potential for effects as noise and vibration generated would travel farther than that generated by HrSR	Same as S6 HrSR	Same as S6 HrSR

[a] CONV = conventional rail; HrSR = higher-speed rail; HSR = high-speed rail

Revised DEIS Section: 3.7 Threatened and Endangered Species

3.7 Threatened and Endangered Species

This section describes threatened and endangered species within the 500-foot Environmental Impact Statement (EIS) Study Area and assesses potential effects on these resources by the alternatives. The introduction to Chapter 3 describes the EIS Study Area and use of terms such as Study Vicinity and transportation corridor, along with the standard organization of each analysis.

A supplemental Texas Parks and Wildlife Department (TPWD) county-by-county list of special-status species has been added to bolster analysis of the potential plant and animal species that could be effected. These data are located in Table 3.7-6 at the end of this section.

3.7.1 Regulatory Environment

Applicable federal and state legislation and regulations pertaining to threatened and endangered species within the EIS Study Area are described below. Additional local and regional laws, regulations, and orders may be applicable and will be addressed in project-level analysis.

3.7.1.1 Federal

- **Endangered Species Act (ESA) of 1973 (16 United States Code [U.S.C.] § 1531-1544 and 42 U.S.C. § 4321, et seq.).** The ESA protects and recovers imperiled species and the ecosystems upon which they depend. The U.S. Fish and Wildlife Service (USFWS) and the National Marine Fisheries Service (NMFS) administer the ESA. USFWS is responsible for terrestrial and freshwater organisms, and NMFS is responsible for marine wildlife, including whales, and anadromous fish, such as salmon. Under the ESA, species may be listed as either endangered or threatened. An endangered species means a species is in danger of extinction throughout all or a significant portion of its range. A threatened species means a species is likely to become endangered within the foreseeable future. Species of plants and animals, except pest insects, are eligible for listing if they meet the criteria for endangered or threatened classification. The ESA and amendments provide guidance for conserving federally listed species and the ecosystems upon which they depend. Relevant sections within the ESA are summarized below:
  - Section 4 of the ESA (Listing, Critical Habitat and Recovery). Section 4 of the ESA (16 U.S.C. § 1533) includes the procedures for listing a species and requires species to be listed as endangered or threatened solely on the basis of their biological status and threats to their existence. When evaluating a species for listing, USFWS considers the following five factors: (1) damage to, or destruction of, a species' habitat; (2) overuse of the species for commercial, recreational, scientific, or educational purposes; (3) disease or predation; (4) inadequacy of existing protection; and (5) other natural or manmade factors that affect the continued existence of the species. When one or more of these factors endanger the survival of a species, USFWS takes action to protect it. Section 4 also requires USFWS and NMFS to designate critical habitat for species listed under the ESA. Critical habitat is defined as follows:

- Specific areas within the geographical area occupied by the species at the time of listing if those areas contain physical or biological features essential to conservation and if those features require special management considerations or protection.
- Specific areas outside the geographical area occupied by the species if those areas are essential for conservation.

In addition, Section 4 directs USFWS and NMFS to develop and implement recovery plans for threatened and endangered species, unless such a plan would not promote conservation of the species.

- Section 7 of the ESA (Interagency Consultation and Biological Assessments). Section 7 of the ESA (16 U.S.C. § 1536) requires federal agencies to consult with USFWS or NMFS, as appropriate, to ensure that actions they authorize, fund, or carry out are not likely to jeopardize the continued existence of threatened or endangered fish, wildlife, or plant species or result in the destruction or adverse modification of designated critical habitat for any such species. Destruction or adverse modification means a direct or indirect alteration that appreciably diminishes the value of critical habitat for the conservation of a listed species. Such alterations may include, but are not limited to, those that alter the physical or biological features essential to the conservation of a species or that preclude or significantly delay development of such features.
- Section 9 of the ESA (Prohibited Acts), and its implementing regulations. Section 9 of the ESA (16 U.S.C. § 1538) prohibits the "taking" of any fish or wildlife species listed under the ESA as endangered or threatened, unless otherwise authorized by federal regulations. "Take" includes the destruction of a listed species' habitat. "Take" also refers to activities that could harm a listed species (e.g., harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct). Section 9 also prohibits specified activities with respect to endangered and threatened plants.
- Section 10 of the ESA (Permitting and Conservation Plans). Section 10 of the ESA (16 U.S.C. § 1539) provides a process by which nonfederal entities may obtain an Incidental Take Permit from USFWS or NMFS for otherwise lawful activities that might incidentally result in take of endangered or threatened species, subject to specific conditions. Take refers to activities that could harm a listed species (e.g., harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct).

- **USFWS Coordination Act of 1934 (16 U.S.C. § 661-667, et seq.).** This Act applies to any federal project where a body of water is impounded, diverted, deepened, or otherwise modified. It provides the basic authority for USFWS involvement in evaluating impacts on fish and wildlife from proposed water resource development projects. It requires that fish and wildlife resources receive equal consideration to other project features. It also requires federal agencies that construct, license, or permit water resource development projects to first consult with USFWS (and the NMFS in some instances) and state fish and wildlife agencies regarding the impacts on

fish and wildlife resources and measures to mitigate these impacts. Consultation with USFWS, TPWD, and Oklahoma Department of Wildlife Conservation (ODWC) would occur at the project level.

- **Migratory Bird Treaty Act (MBTA) of 1918 (16 U.S.C. § 703-712).** The MBTA protects selected species of birds that cross international boundaries (i.e., species that occur in more than one country at some point during their life cycle). The law prohibits the take of such species, including the removal of nests, eggs, and feathers. The MBTA makes it illegal for anyone to take, possess, import, export, transport, sell, purchase, barter, or offer for sale, purchase, or barter, any migratory bird, or the parts, nests, or eggs of such a bird, except under the terms of a valid permit issued pursuant to federal regulations.
- **Bald and Golden Eagle Protection Act (16 U.S.C. § 668-668d, 50 CFR 22).** This Act prohibits the destruction of bald and golden eagles and their occupied and unoccupied nests. It also makes it illegal to take, transport, or possess eagles or use these species in commerce.
- **Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act) (16 U.S.C. §§ 1801-1884).** The Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act) is the primary law governing marine fisheries management in U.S. federal waters. First passed in 1976, the Magnuson-Stevens Act fosters long-term biological and economic sustainability of our nation's marine fisheries out to 200 nautical miles from shore.

3.7.1.2 State

- **State of Oklahoma Statute Title 29.** This statute gives the state the authority to list a wildlife species as threatened or endangered within Oklahoma, although it might not be classified as threatened or endangered federally through the ESA. An endangered species refers to any wildlife species or subspecies in the wild or in captivity whose prospects of survival and reproduction are in immediate jeopardy. It includes those species listed as endangered by the federal government and any species or subspecies identified as threatened by Oklahoma statute or Commission resolution, as outlined in Oklahoma Statute Title 29. Four wildlife species are listed as state-threatened or state-endangered in Oklahoma.

  State of Oklahoma Statute Title 29 also prohibits possession, hunting, chasing, harassing, capture, shooting at, wounding or killing, taking or attempting to take, trapping or attempting to trap any endangered or threatened species or subspecies without specific written permission from the Director. In no event, however, may that permission conflict with federal law. Consultation with ODWC would occur at the project level.
- **Texas Parks and Wildlife Code.** The Texas legislature authorized the TPWD to establish a list of endangered animals in the state in 1973. State regulations prohibit the taking, possession, transportation, or sale of any of the animal species designated as endangered or threatened without the issuance of a permit, as outlined in Chapters 6 and 68 of the Texas Parks and Wildlife Code and 31 Texas Administrative Code (TAC) § 65.171-65.176. Endangered species

are those species that the Executive Director of TPWD has identified as being threatened with state-wide extinction. Threatened species are those species that the TPWD Commission has determined are likely to become endangered in the future.

State regulations prohibit commerce of threatened and endangered plants and prohibit the collection of listed plant species from public land without the issuance of a permit as outlined in Chapter 88 of the Texas Parks and Wildlife Code and 31 TAC § 69.01-69.9. Consultation with TPWD would occur at the project level.

State regulations prohibit the take, possession, sale or offering for sale of any species of mussel listed in §65.175 of this title or §65.176 of this title except as provided by Parks and Wildlife Code, Chapter 67 or 31 TAC Chapter 65, Subchapter G, as outlined in TAC Title 31 Section 51.157.

3.7.2 Methodology

The methodology for this evaluation consists of using existing data to identify threatened and endangered species occurrences and the corresponding habitat that could be present within the EIS Study Area for each build alternative. The methodology also included evaluating the potential level of effect that each alternative could have if constructed. Critical habitat, as defined by Section 4 of the ESA, may exist within the EIS Study Area; however, at the service-level analysis, a data set with specific critical habitat boundaries was not provided nor assessed. The assessment conducted has taken into account that the absence/presence of a species may or may not be the sole indicator that the corresponding critical habitat is or may also be present. Recognizing that the incorporation of critical habitat areas and their corresponding analysis will be identified and conducted at the project level (see 3.7.6 *Subsequent Analysis*) a broader consideration and use of the term habitat has been included in this assessment and effect determinations. The build alternatives are compared with other alternatives within the same geographic section, as well as with the No Build Alternative. The No Build Alternative includes the existing transportation network (roadway, passenger rail, and air) in the Study Vicinity and committed improvements to these systems. The intensity of an effect as a result of the route alternatives is characterized as negligible, moderate, or substantial, in comparison with the No Build Alternative. For threatened and endangered species, these terms are defined as follows:

- Negligible intensity effects from construction and operation of an alternative would have no effect on threatened and endangered species or their habitat.
- Moderate intensity effects from construction and operation of an alternative may affect, but would not likely adversely affect, threatened and endangered species or their habitat.
- Substantial intensity effects from construction and operation of an alternative may affect, and would likely adversely affect, threatened and endangered species or their habitat.

Available information, such as special-status species occurrences and corresponding habitat, was used to assess the potential magnitude or intensity of the effects. To evaluate the potential effects

on threatened and endangered species from construction and operation of the alternatives, the following information was reviewed and potential service-level effects assessed:

- **Reported presence of special-status plant and wildlife occurrences.** Potential effects of each alternative were determined using special-status species data by comparing locations of known occurrences and approximate number and location of reported special-status plant and wildlife species within the EIS Study Area. It should be noted that actual potential habitat for listed species would most likely be more widespread and would be determined during focused surveys conducted during a project-level National Environmental Policy Act (NEPA) analysis. Federally and state-listed species in Texas were identified through a review of the 2011 Environmental Occurrences for Federal and State Listed and Tracked Threatened, Endangered, and Rare Species spatial dataset, acquired from the TPWD Texas Natural Diversity Database (TXNDD), and through a review of the county-by-county list of endangered and threatened species published by TPWD (Michael Baker Jr., Inc. 2012, TPWD (2014a); TPWD (2014b). Oklahoma federally and state-listed species were identified through a review of the county-by-county list of endangered and threatened species published by ODWC. These resources represent tools utilized for planning level evaluation purposes and are not a final determination of presence or absence of species. For the service-level analysis of threatened and endangered plant and animal species, only TXNDD data and the county-by-county list were used. Based on direction received from the Texas Department of Transportation regarding the methods of analysis for each of the environmental disciplines that were considered and included in the service-level EIS, data acquired via the Ecological Mapping Systems of Texas, the National Land Cover Database, and composite data from the U.S. Environmental Project Agency's Regional Ecological Assessment Protocol were included in the *Natural Ecological Systems and Wildlife Technical Study* (Appendix G) and in Section 3.5, Natural Ecological Systems and Wildlife. Such data were used to assess the potential magnitude, or intensity, of the effects on land use coverage, ecoregions, wildlife corridors and assemblages, and sensitive plant communities and not incorporated within the threatened and endangered species analysis. During subsequent, project-level analysis, data from the Ecological Mapping Systems of Texas, National Land Cover Database, and Regional Ecological Assessment Protocol, as well as data from TXNDD and ODWC, will be used to determine if habitat is present within the study area of a preferred alternative and will be used to conduct a detailed analysis to determine actual effects on threatened and endangered species and habitats.
- **Reported presence of potential habitat within the EIS Study Area.** Potential effects of each alternative were determined using approximate location (presence/absence) of habitat within the EIS Study Area commensurate with the corresponding potential for sensitive plant and wildlife species to also be present. Data used for analysis were obtained from the TXNDD and the *Oklahoma Department of Transportation, High-Speed Intercity Passenger Rail I-35 Corridor, Oklahoma, Data Collection Report* (Meshek & Associates 2013).

3.7.3 Affected Environment

The EIS Study Area spans 850 miles in length from central Oklahoma to south Texas. Therefore, the alternatives are spread across a broad geographic area with typical weather patterns that include semi-arid, humid subtropical, and modified subtropical conditions. The EIS Study Area generally lies along low-elevation basins and valleys associated the Great Plains in the north and with the Coastal Plains in the south. Land cover types within the EIS Study Area include developed, vegetated with open grasslands, agricultural, shrubland, and forests. Details regarding the general climate of the Study Vicinity can be found in Section 3.5, Natural Ecological Systems and Wildlife.

As described previously, federal and state regulations protect imperiled plant species and facilitate the recovery of such species and the ecosystems upon which they depend. Federal and state regulations also provide guidance on how a species is listed and designations (endangered, threatened, etc.) of a species' sensitivity. Special-status plant species were identified to potentially occur within the Northern, Central and Southern sections. Table 3.7-1 lists the sensitive plant species from the TPWD data set that potentially occur within the EIS Study Area and describes each species status and/or TPWD ranking.

*Table 3.7-1: Sensitive Plant Species Potential to Occur Within the EIS Study Area**

Common Name	Scientific Name	Status (Federal/State/ TPWD Ranking)[a]	General Habitat Type(s)
Northern Section			
Alternative N4A Conventional			
None			
Central Section			
Alternative C4A Higher-Speed Rail and C4A High-Speed Rail			
None			
Alternative C4B Higher-Speed Rail and C4B High-Speed Rail			
None			
Alternative C4C Higher-Speed Rail and C4C High-Speed Rail			
None			
Southern Section			
Alternative S4 Higher-Speed Rail			
Bailey's ballmoss	*Tillandsia baileyi*	-- / -- / S2	An air plant that grows on trees in woodland, savanna/open woodland and shrubland in Texas
Elmendorf's onion	*Allium elmendorfii*	-- / -- / S2	Savanna/open woodland; known only from the Carrizo sands of eastern Bexar, Frio, Wilson, and Atacosa counties

Common Name	Scientific Name	Status (Federal/State/ TPWD Ranking)[a]	General Habitat Type(s)
Falfurrias milkvine	*Matelea radiata*	-- / -- / SH	Unknown
Green Island echeandia	*Echeandia texensis*	-- / -- / S1	Grassland; on clay dunes, llanos, and open areas in Texas
Johnston's frankenia	*Frankenia johnstonii*	LE, PDL / E / S3	Shrubland; found in high-saline, rocky or eroding and reddish soil, associated with the Maverick soil series. It is found in Webb, Zapata, and Starr Counties of south Texas; also in northern Mexico
Lila de los llanos	*Echeandia chandleri*	-- / -- / S2	Grassland; coastal plains in Texas and Mexico (San Luis Potosí, Tamaulipas)
Mexican mud-plantain	*Heteranthera mexicana*	-- / -- / S1	Freshwater wetland (playas); riparian (resacas); populations are located in swales and ditches in an area that is subject to irregular rainfall
Plains gumweed	*Grindelia oolepis*	-- / -- / S2	Grassland; endemic to Texas and primarily found along roadsides and other disturbed rights-of-way
Runyon's cory cactus	*Coryphantha macromeris* var. *runyonii*	-- / -- / S2	Shrubland (Chihuahuan desert scrub, Tamaulipan thorn scrub), on nearly all substrates including nearly pure gypsum, gravelly soils, usually sandy alluvium or clay, rarely crevices or steep slopes in New Mexico, Texas and Mexico (Chihuahua, Coahuila, Durango, Zacatecas)
Runyon's water-willow	*Justicia runyonii*	-- / -- / S2	Shrubland and woodland in Texas, Rio Grande Valley and Northern Mexico
Sandhill woolywhite	*Hymenopappus carrizoanus*	-- / -- / S2	Savanna/open woodland (sandhills), oak woodlands on sandy soils
Slender rushpea	*Hoffmannseggia tenella*	LE / E / S1	Grassland; known to occur in four populations in Nueces and Kleberg counties in Texas
South Texas ambrosia	*Ambrosia cheiranthifolia*	LE / E / S2	Grassland; on seasonally wet clay and sands in Texas and Mexico (Tamaulipas)
St. Joseph's Staff	*Manfreda longiflora*	-- / -- / S2	Shrubland on clay slopes, dry gravelly hills or sandy prairies in Texas and Mexico (Tamaulipas).

Common Name	Scientific Name	Status (Federal/State/ TPWD Ranking)[a]	General Habitat Type(s)
Texas ayenia	*Ayenia limitaris*	LE / E / S1	Shrubland; known to occur in only one small population of about 20 individuals in Hidalgo county
Texas windmill-grass	*Chloris texensis*	-- / -- / S2	Grassland (coastal prairie, saline prairie)
Vasey's adelia	*Adelia vaseyi*	-- / -- / S2	Shrubland
Walker's manioc	*Manihot walkerae*	LE / E / S1	Shrubland; Historically, Walker's manioc is known only from the lower Rio Grande valley of Texas (Hidalgo and Starr counties) and northern Tamaulipas, Mexico. Now, located in three different areas on the Lower Rio Grande National Wildlife Refuge in Starr and Hidalgo Counties
Alternative S6 Higher-Speed Rail and S6 High-Speed Rail			
None			

[a] Status acronyms:

Federal and State Listing Designations

E – State endangered
DL – Delisted
LE – Federally endangered
LT – Federally threatened
PDL – Proposed delisted
PE – Federally proposed endangered
PT – Federally proposed threatened
T – State threatened
C - Category 1 candidate for listing as threatened or endangered by the USFWS

TPWD Rankings

S1 - Fewer than 6 occurrences known in Texas; critically imperiled in Texas; especially vulnerable to extirpation from the state
S2 - 6 to 20 known occurrences in Texas; imperiled in the state because of rarity; very vulnerable to extirpation from the state
S3 - 21 to 100 known occurrences in Texas; either rare or uncommon in the state
S4 - More than 100 occurrences in Texas; apparently secure in the state, though it may be rare in some areas of Texas
S5 - Demonstrably secure in Texas
SH - Historical in Texas, not verified within the past 40 years but suspected to be extant
SR - Reported from Texas in literature but not verified via specimens or field observations
SX - Presumed extirpated from Texas

Source: TPWD (2014b).

*This table displays only the species shown in the TPWD spatial data set. Supplemental species data from the analysis of the TPWD county-by-county special-status species list is displayed in Table 3.7-6.

Sensitive wildlife species include federally and state-listed endangered species, threatened species, federally proposed endangered and proposed threatened species as well as TPWD Species of Greatest Conservation Need (SGCN). Table 3.7-2 lists the sensitive wildlife species and their status that potentially occur within the EIS Study Area based on the spatial dataset and county-by-county list acquired from the TXNDD.

*Table 3.7-2: Sensitive Wildlife Species Potential to Occur Within the EIS Study Area**

Common Name	Scientific Name	Status (Federal/State/ TPWD Ranking[a])	General Habitat Type(s)
Northern Section			
Alternative N4A Conventional			
Arkansas River shiner	*Notropis girardi*	LT / -- / --	Historically inhabited the main channels of wide, shallow, sand-bottomed rivers and larger streams of the Arkansas River basin. Adults are uncommon in quiet pools or backwaters, and almost never occur in tributaries having deep water and bottoms of mud or stone. Juveniles associated most strongly with current, conductivity (total dissolved solids), and backwater and island habitat types.
Black-capped vireo	*Vireo atricapillus*	LE / -- / --	Rangelands with scattered clumps of shrubs separated by open grassland. There are two known populations of black-capped vireos in Oklahoma. One population is large (more than 2,000 birds) and is located in the Wichita Mountains of northern Comanche County. The other population is small (fewer than 30 birds) and occurs in the canyon lands of northern Blaine County, north of Watonga.
Black-sided darter	*Percina maculata*	-- / T / --	Clear, gravel-bottom, perennial streams.
Interior least tern	*Sterna antillarum*	LE / -- / --	Nesting habitat–bare or sparsely vegetated sand, shell, and gravel beaches, sandbars, islands, and salt flats associated with rivers and reservoirs. For feeding, needs shallow water with an abundance of small fish. Shallow water areas of lakes, ponds, and rivers located close to nesting areas are preferred. Occurs in Oklahoma during the late spring and summer breeding season (mid-May through late August) on portions of the Arkansas, Cimarron, Canadian and Red rivers.
Piping plover	*Charadrius melodus*	LT / -- / --	Estuary/estuarine and coastal.

Common Name	Scientific Name	Status (Federal/State/ TPWD Ranking[a])	General Habitat Type(s)
			Winter – beaches, sand flats, mudflats, algal mats, emergent sea grass beds, wash-over passes, and very small dunes where seaweed (sargassum) or other debris has accumulated sand; spoil islands along the Intracoastal Waterway; bare or sparsely vegetated coastal areas. There are two nesting records for the piping plover in the Oklahoma panhandle, but it is normally a spring and fall migrant through the state. Most records for migrating piping plovers occur across the main body of the state, with recent records including Woodward, Alfalfa, Oklahoma, Cleveland, Tulsa, and Washington counties.
Whooping crane	*Grus Americana*	LE / -- / --	Saltwater wetland and estuary. Winter – primarily freshwater and brackish marshes of south Texas, salt marshes, and tidal flats on the mainland and barrier islands dominated by salt grass, saltwort, smooth cordgrass, glasswort, and sea ox-eyebut; recently a few flocks have used waterbodies (e.g., Granger Lake), stopping short of coastal destination; shallow, seasonally and semi-permanently flooded palustrine wetlands for roosting, and various cropland and emergent wetlands. During migration, whooping cranes pass through the western half of Oklahoma, with most sightings occurring west of Interstate Highway (IH)-35 and east of Guymon, in the panhandle.
Central Section			
Alternative C4A Higher-Speed Rail and C4A High-Speed Rail			
Mountain plover	*Charadrius montanus*	PT / -- /S2	Agricultural and grassland. Winter – shortgrass prairie, heavily grazed rangelands and agricultural fields in south Texas.

Common Name	Scientific Name	Status (Federal/State/ TPWD Ranking[a])	General Habitat Type(s)
			Breeding – short- and mixed-grass prairie, prairie dog colonies, agricultural lands, and semi-desert habitats in west Texas and panhandle. Nest locally in the western Great Plains from Montana south to New Mexico, in Utah, and in Mexico; winter in a broad band from Texas west and north to the Central Valley of California.
Texas garter snake	*Thamnophis sirtalis annectens*	-- / -- / S3	Riparian, around lacustrine and cultural aquatic sites; marshy, flooded pastureland or meadows, particularly in spring when frogs are present in numbers; at other times, grassy or brushy terrain near hill country streams and ponds. Central and north Texas and Oklahoma.
Alternative C4B Higher-Speed Rail and C4B High-Speed Rail			
Mountain plover	*Charadrius montanus*	PT / -- /S2	See above.
Texas garter snake	*Thamnophis sirtalis annectens*	-- / -- / S3	See above.
Alternative C4C Higher-Speed Rail and C4B High-Speed Rail			
Mountain plover	*Charadrius montanus*	PT / -- /S2	See above.
Texas garter snake	*Thamnophis sirtalis annectens*	-- / -- / S3	See above.
Southern Section			
Alternative S4 Higher-Speed Rail			
Black-spotted newt	*Notophthalmus meridionalis*	-- / -- / S2	Freshwater wetland, riparian, riverine, cultural aquatic; edaphically limited: deep, poorly drained, clayey sediments (such as the Tiocano and Edroy clay soils) with slow permeability allow formation of ephemeral ponds or wetlands during periods of heavy rain, within a matrix of native, intact Tamaulipan thornscrub; permanent and temporary ponds, roadside ditches, and pools of small streams may also be used; breed in shallow ephemeral ponds ranging in depth from 0.5 to 2 meters, with firm clay bottoms, and some with rooted macrophytes; salinities ranging from 0.5 to 1.0%; not found in

Common Name	Scientific Name	Status (Federal/State/ TPWD Ranking[a])	General Habitat Type(s)
			water bodies with predatory fish, high salinity, intense cattle usage, or agricultural runoff. Texas counties bordering the Gulf Coast, south from Aransas and Refugio counties, and the central portion of the Tamaulipan Province, south from Bexar County.
Black-striped snake	*Coniophanes imperialis*	-- / -- / S2	Savannas, thornscrub, agricultural landscapes, and edges of wet or marshy areas; semiarid coastal sandplain; also survives around buildings and in vacant lots in localized suburban areas. South Texas along the Gulf Coast to Veracruz, Mexico.
Jaguar	*Panthera onca*	LE / E / SH	Forest, woodland, and riparian. Broadleaf deciduous and mixed mature forest, canyons and rocky caves or dense thickets for denning, large blocks.
Jaguarundi[b]	*Herpailurus yaguarondi*	LE / E/ S1	Shrubland; dense thornscrub over loamy clay soils (holding moisture); riparian areas and brushy arroyos.
Keeled earless lizard	*Holbrookia propinqua*	-- / -- / S3	Coastal, barren/sparse vegetation, shrubland; native coastal grasslands, barrier islands. South Texas and along the Gulf Coast of Mexico.
Mexican blackhead snake	*Tantilla atriceps*	-- / -- / S1	Shrubland; wooded and grassland/thorn brush communities, desert flats to wooded mountain canyons. Restricted to two counties (Kleburg and Duval) in south Texas. In Mexico, occurs from central Coahuila south to San Luis Potosi, with isolated populations found in Tamaulipas.
Mexican treefrog	*Smilisca baudinii*	-- / -- / S3	Riparian, freshwater wetland, cultural aquatic, woodland; nocturnal and most active after rains; forested and brushy areas around streams, resacas, and roadside ditches; observed in tops of palm trees; seek shelter from heat and dry conditions under loose tree bark, in tree holes, in damp soil, and in the leaves of palms, banana plants, and other broadleaves. Restricted to the extreme southern tip of Texas, in Cameron and Hidalgo counties.

Common Name	Scientific Name	Status (Federal/State/ TPWD Ranking[a])	General Habitat Type(s)
Northern cat-eyed snake	*Leptodeira septentrionalis*	-- / T / S2	Forest, woodland, thornscrub with ponds or streams (frogs and toads are primary food). Restricted to counties along the Rio Grande Valley in the few remaining stretches of thornscrub and subtropical habitats.
Reticulate collared lizard	*Crotaphytus reticulatus*	-- / T / S2	Desert scrub, scrubland; thorn-scrub vegetation, usually on well-drained rolling terrain of shallow gravel, caliche, or sandy soils; scattered flat rocks below escarpments or isolated rock outcrops among scattered clumps of prickly-pear and mesquite; mesquite savanna and grasslands near rocky outcrops; shrub and rock structure in habitat are important. Occurs in the Rio Grande Valley of south Texas and Mexico, excluding the coastal areas.
Sheep frog	*Hypopachus variolosus*	-- / T / S2	Shrubland, riparian, cultural aquatic; thornscrub, oak woodland, mesquite savanna, short and mixed grassland, agricultural areas and other open areas; ephemeral and permanent wetlands key for breeding. Occurs from the eastern half of south Texas, from Bee County south to Cameron, Hidalgo, and Starr counties.
South Texas siren (large form)	*Siren sp. 1*	-- / T / S2	Freshwater wetland, cultural aquatic, lacustrine; wholly aquatic; shallow, muddy, vegetated wetlands, resacas, ditches, swamps, ponds and larger lakes and streams; structure (thick vegetation, rocks, and logs) and muddy bottom typically associated with unmanaged or unmanipulated waterways. Eastern third of Texas, from the lower Rio Grande Valley northward along the Gulf Coast to Louisiana.
Texas Indigo Snake	*Drymarchon melanurus erebennus*	-- / T / S4	Shrubland, savanna; riparian corridors in thorn brush woodland, mesquite savanna of the coastal plain, mixed-grass prairies, coastal sandhills, and desert scrubland; often uses small mammal burrows (e.g., gopher [Geomys]). Southern Texas south into Mexico.

Common Name	Scientific Name	Status (Federal/State/ TPWD Ranking[a])	General Habitat Type(s)
Texas scarlet snake	*Cemophora coccinea lineri*	-- / T / S1	Coastal, shrubland, and desert scrub. Known to occur in several counties located along the Texas coastal bend and in adjunct south Texas.
Alternative S6 Higher-Speed Rail and S6 High-Speed Rail			
Texas tortoise	*Gopherus berlandieri*	-- / -- / S2	Savanna, shrubland; semi-desert scrub and barrier islands, on sand, clay or caliche; lomas surrounded by salt flats and marshes; south of a line through Del Rio, San Antonio, and Rockport, Texas.

[a] Status acronyms:

Federal and State Listing Designations

E – State endangered

DL – Delisted

ET – State threatened

LE – Federally endangered

LT – Federally threatened

PDL – Proposed delisted

PE – Federally proposed endangered

PT – Federally proposed threatened

C = Category 1 candidate for listing as threatened or endangered by the USFWS

TPWD Rankings

SGCN – Species of Greatest Conservation Need (SGCN) but with S1 - Fewer than 6 occurrences known in Texas; critically imperiled in Texas; especially vulnerable to extirpation from the state

S2 - 6 to 20 known occurrences in Texas; imperiled in the state because of rarity; very vulnerable to extirpation from the state

S3 - 21 to 100 known occurrences in Texas; either rare or uncommon in the state

S4 - More than 100 occurrences in Texas; apparently secure in the state, though it may be rare in some areas of Texas

S5 - Demonstrably secure in Texas

SH - Historical in Texas, not verified within the past 40 years but suspected to be extant

SR - Reported from Texas in literature but not verified via specimens or field observations

SX - Presumed extirpated from Texas

[b] Texas Department of Transportation (TxDOT) staff noted that jaguarundi are no longer found in Texas; however, the species was included in information from the resource agency databases and is therefore referenced in this document.

*This table displays only the species shown in the TPWD spatial data set. Supplemental species data from the analysis of the TPWD county-by-county special-status species list is displayed in Table 3.7-6.

Sources: Meshek & Associates (2013); Michael Baker Jr., Inc. (2012); Southwestern Center for Herpetological Research (2014); ODWC (2014a); ODWC (2014b); Texas Natural Sciences Center (2014), TPWD (2014a); TPWD (2014b)

3.7.3.1 Northern Section: Oklahoma City to Dallas and Fort Worth

3.7.3.1.1 Sensitive Plant Species

Based on the dataset and the county-by-county list acquired from TXNDD and the ODWC endangered and threatened species list, no federally or state-listed plant species occur within the EIS Study Area for Alternative N4A Conventional. Based on the county by county list there is

potential for TPWD ranked Species of Greatest Conservation Need (SGCN) to occur within the EIS Study Area for Alternative N4A Conventional (See Table 3.7-6).

3.7.3.1.2 Sensitive Wildlife Species

Based on the dataset and county by county list acquired from TXNDD and the ODWC endangered and threatened species list, and shown in Table 3.7-2, there are wildlife species which have the potential to occur within the EIS Study Area for Alternative N4A Conventional.

3.7.3.1.3 Habitat

Based on the dataset and county-by-county list acquired from TXNDD and ODWC, corresponding habitat for animal species is reported within the EIS Study Area for Alternative N4A Conventional. This same dataset includes approximate locations of reported and designated habitat for federally threatened species within the EIS Study Area for Alternative N4A Conventional. As shown on Figure 3.7-1, habitat in the EIS Study Area includes the Canadian River that follows the existing rail alignment in McClain County, Oklahoma, and intersects perpendicularly to the EIS Study Area south of Norman, Oklahoma. No other designated habitat areas were identified at the service-level analysis.

3.7.3.2 Central Section: Dallas and Fort Worth to San Antonio

3.7.3.2.1 Sensitive Plant Species

Based on the dataset and county-by-county list acquired from TXNDD, no federally or state-listed or state-ranked plant species occur within the EIS Study Areas for the Central Section alternatives. Based on the county-by-county list there is potential for TPWD ranked Species of Greatest Conservation Need (SGCN) to occur within the EIS Study Area for Central Section (See Table 3.7-6). Alternative C4A is likely to have a lesser impact on plant species than C4B and C4C (see Table 3.7-6).

3.7.3.2.2 Sensitive Wildlife Species

Based on the dataset and county-by-county list acquired from TXNDD, and shown in Table 3.7-2 and 3.7-6, special-status wildlife species have the potential to occur within the EIS Study Area for Alternative C4A.

As shown on Figures 3.7-2 and 3.7-3, the recorded occurrences of sensitive wildlife species identified within the EIS Study Area are represented by relatively large areas intersected by the EIS Study Area. In addition, the occurrences are in the portions of the alternative outside existing transportation corridors.

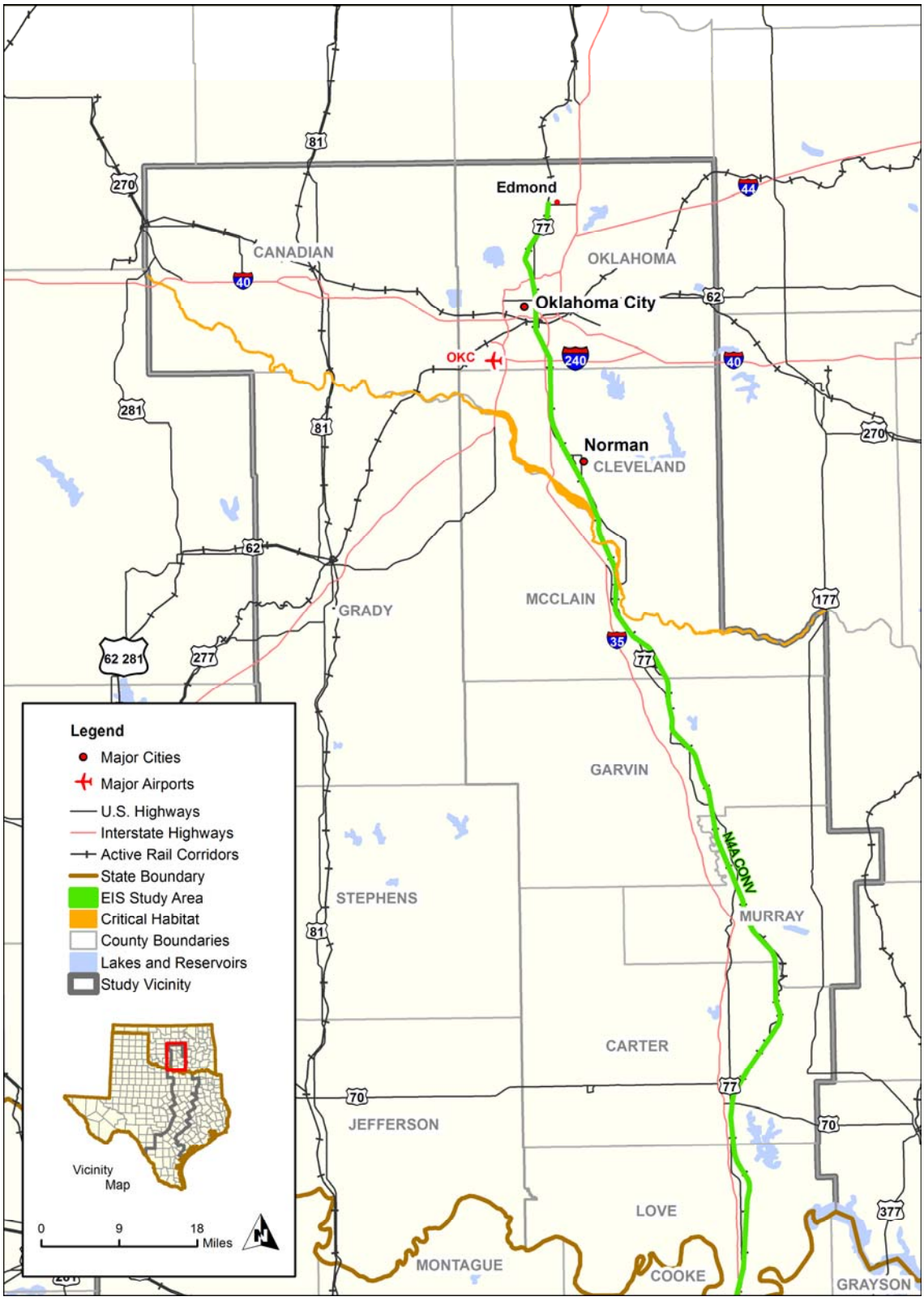

Figure 3.7-1: Habitat – Northern Section Alternative

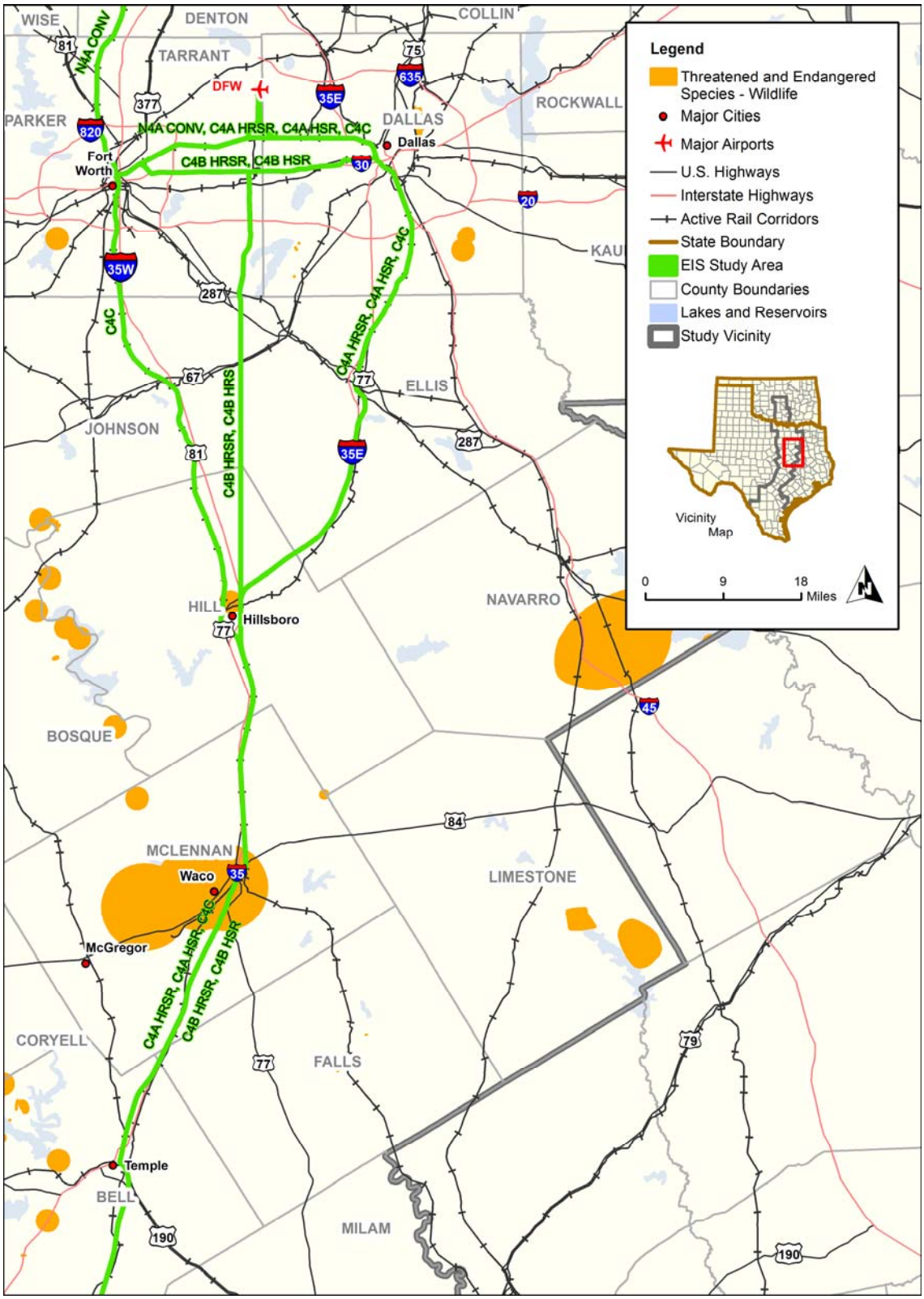

Figure 3.7-2: Sensitive Wildlife Species Occurrences – Central Section Alternatives

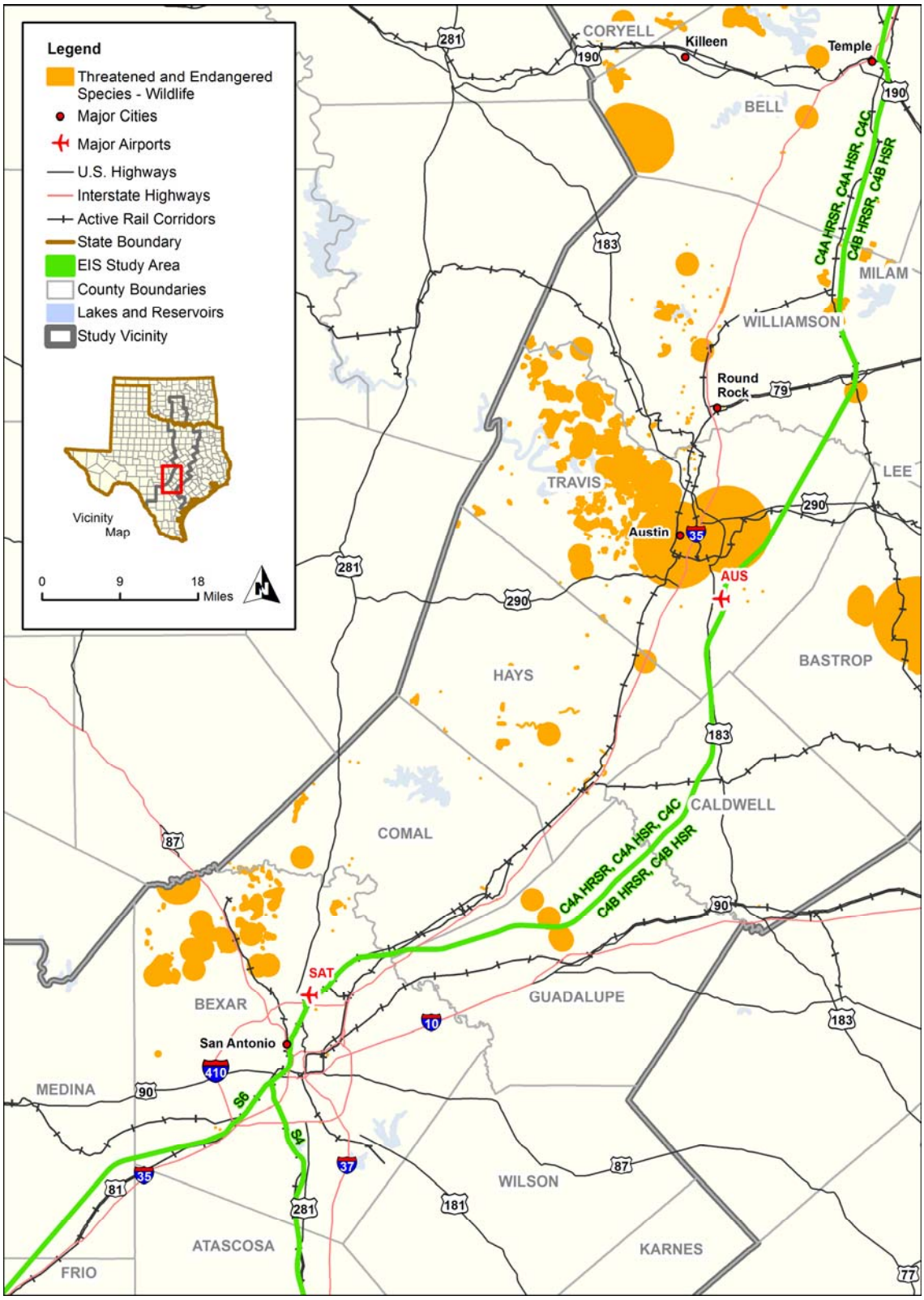

Figure 3.7-3: Sensitive Wildlife Species Occurrences – Central Section Alternatives

Based on the dataset and county-by-county list acquired from TXNDD, special-status wildlife species also have the potential to occur within the EIS Study Area for Alternative C4B. As shown on Figures 3.7-2 and 3.7-3, the recorded occurrences of sensitive wildlife species identified within the EIS Study Area are represented by relatively large areas intersected by the EIS Study Area.

Based on the dataset and county-by-county list acquired from TXNDD, special-status wildlife species also have the potential to occur within the EIS Study Area for Alternative C4C. As shown on Figures 3.7-2 and 3.7-3, the recorded occurrences of sensitive wildlife species identified within the EIS Study Area are again represented by relatively large areas intersected by the EIS Study Area.

3.7.3.2.3 Habitat

Based on the dataset and county-by-county list acquired from TXNDD, corresponding habitat areas were assumed to be present within the EIS Study Areas for the Central Section alternatives.

3.7.3.3 Southern Section: San Antonio to South Texas

3.7.3.3.1 Sensitive Plant Species

Based on the dataset and county-by-county list acquired from TXNDD, and shown in Table 3.7-1 and 3.7-6, federally and state-listed or state-ranked plant species have the potential to occur within the Southern Section. Table 3.7-3 and 3.7-6 lists the potential sensitive plant occurrences within the EIS Study Area for Alternative S4 Higher-Speed Rail.

Table 3.7-3: Potential Sensitive Plant Occurrences within EIS Study Area – Alternative S4 Higher-Speed Rail

Common Name*	
Bailey's ballmoss	Runyon's water-willow
Elmendorf's onion	Sandhill woolywhite
Falfurrias milkvine	Slender rushpea
Green Island echeandia	South Texas ambrosia
Johnston's frankenia	St. Joseph's Staff
Lila de los llanos	Texas ayenia
Mexican mud-plantain	Texas windmill-grass
Plains gumweed	Vasey's adelia
Runyon's cory cactus	Walker's manioc
Sources: Meshek & Associates (2013); Michael Baker Jr., Inc. (2012)	

As shown on Figures 3.7-4 through 3.7-6, most of the known occurrences of the listed plant species that intersect with the EIS Study Area for Alternative S4 Higher-Speed Rail are in Atascosa, Bexar, Brooks, Cameron, Hidalgo, Jim Wells, and Nueces Counties, in areas of the alternative that would be constructed on an existing abandoned rail and in areas that have already been disturbed by

prior rail development. It should be noted that there are some species of rare plants that persist and potentially expand within disturbed ROWs. This potentiality will be considered and evaluated in greater detail during project-level analysis.

3.7.3.3.2 Sensitive Wildlife Species

Based on the dataset and county-by-county list acquired from TXNDD, and as shown in Tables 3.7-2 and 3.7-6, there is the potential for listed wildlife species to occur within the EIS Study Areas for the Southern Section alternatives.

Table 3.7-4 lists the potential sensitive wildlife within the EIS Study Area of Alternative S4 Higher-Speed Rail.

Table 3.7-4: Potential Sensitive Wildlife Habitat within EIS Study Area – Alternative S4 Higher-Speed Rail [a]

Common Name
Black-spotted newt
Black-striped snake
Jaguar
Jaguarundia
Keeled earless lizard
Mexican blackhead snake
Mexican treefrog
Northern cat-eyed snake
Reticulate collared lizard
Sheep frog
South Texas siren (large form)
Texas indigo snake
Texas scarlet snake
[a] TxDOT staff noted that jaguarundi are no longer found in Texas; however, the species was included in information from the resource agency databases and is therefore referenced in this document. TxDOT staff also noted that black bear and ocelot are found in the area. Assessment of these species will be included in project-level analysis as appropriate.
Sources: Meshek & Associates (2013); Michael Baker Jr., Inc. (2012)

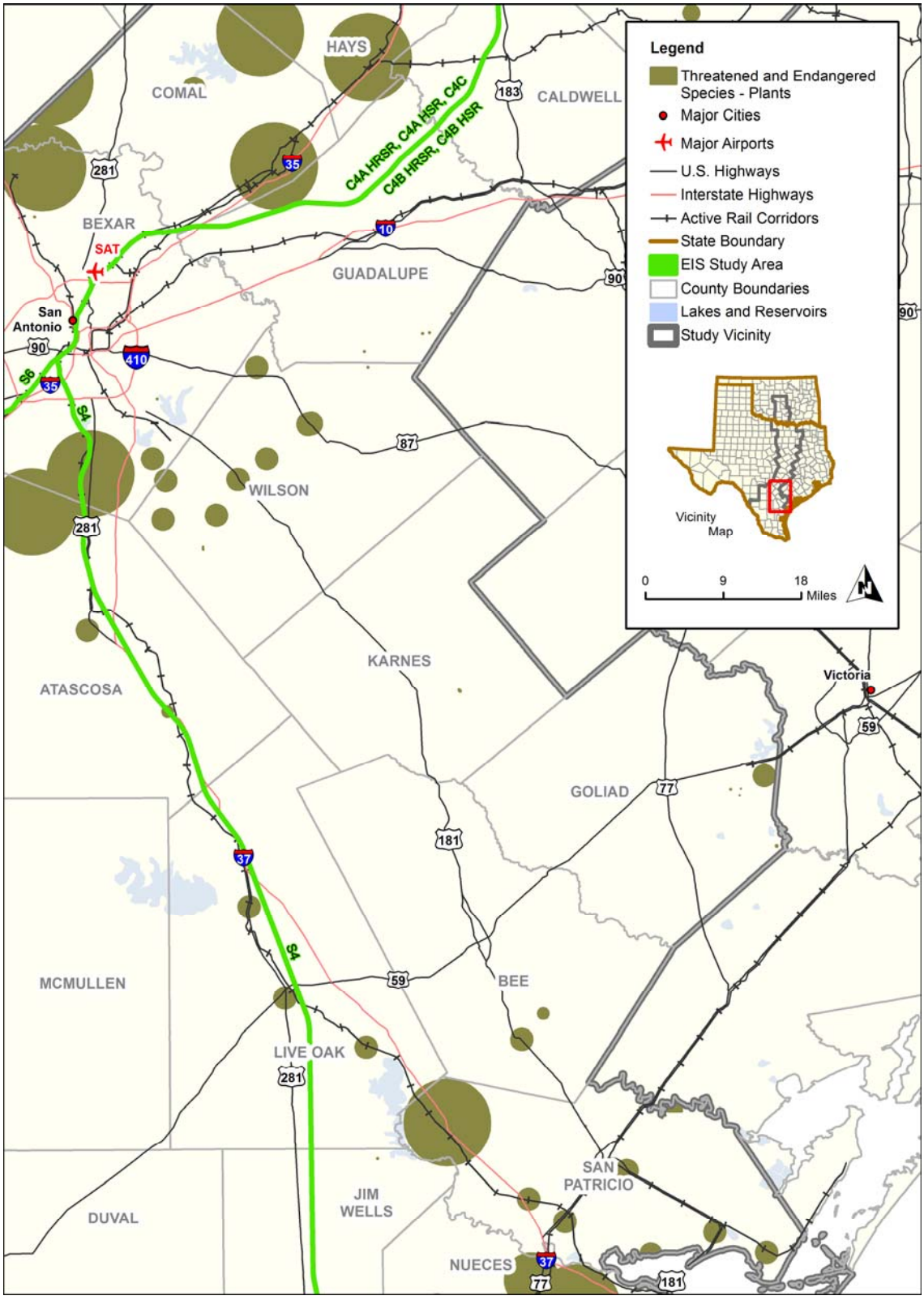

Figure 3.7-4: Sensitive Plant Species Occurrences – Alternative S4

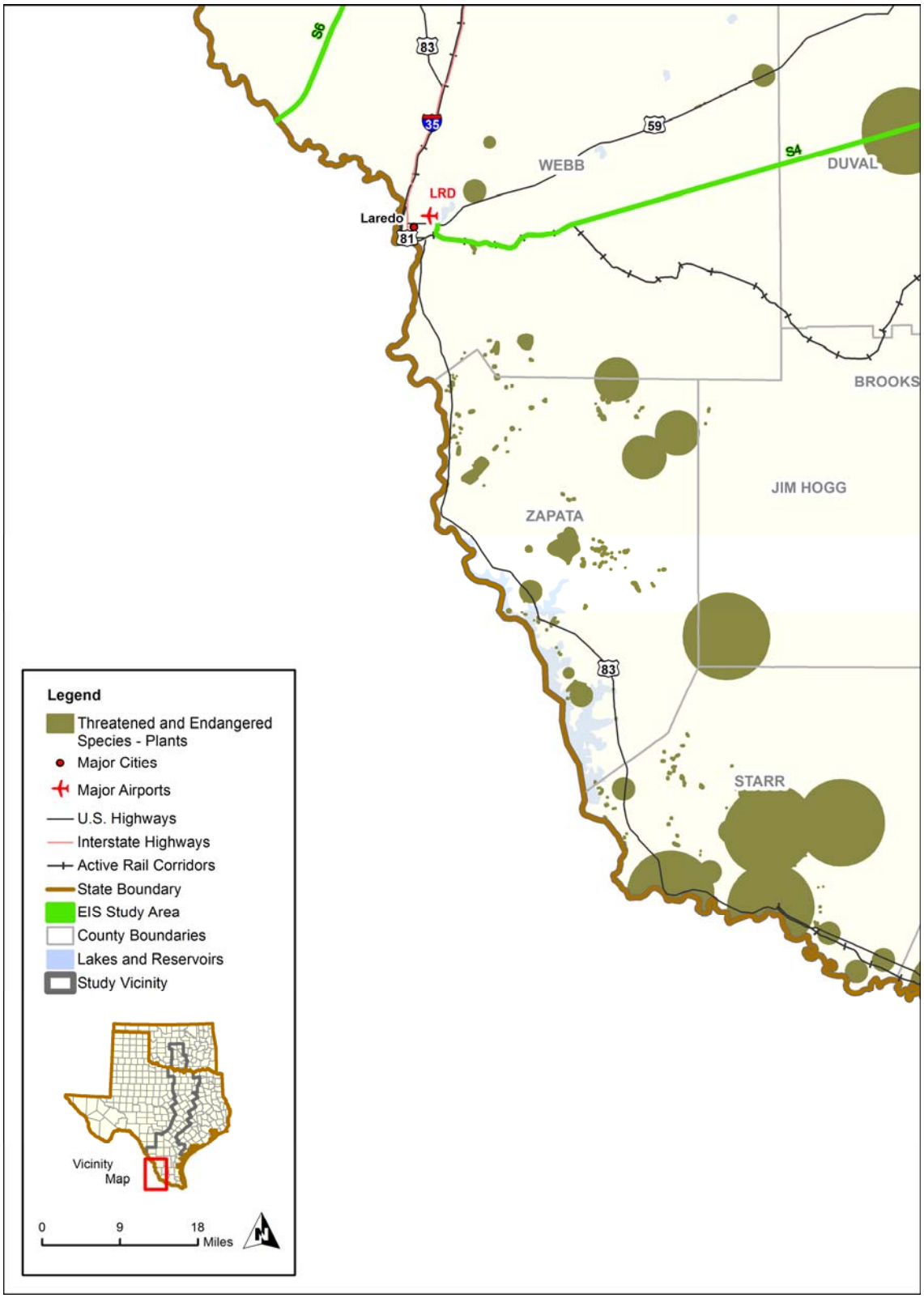

Figure 3.7-5: Sensitive Plant Species Occurrences – Alternative S4

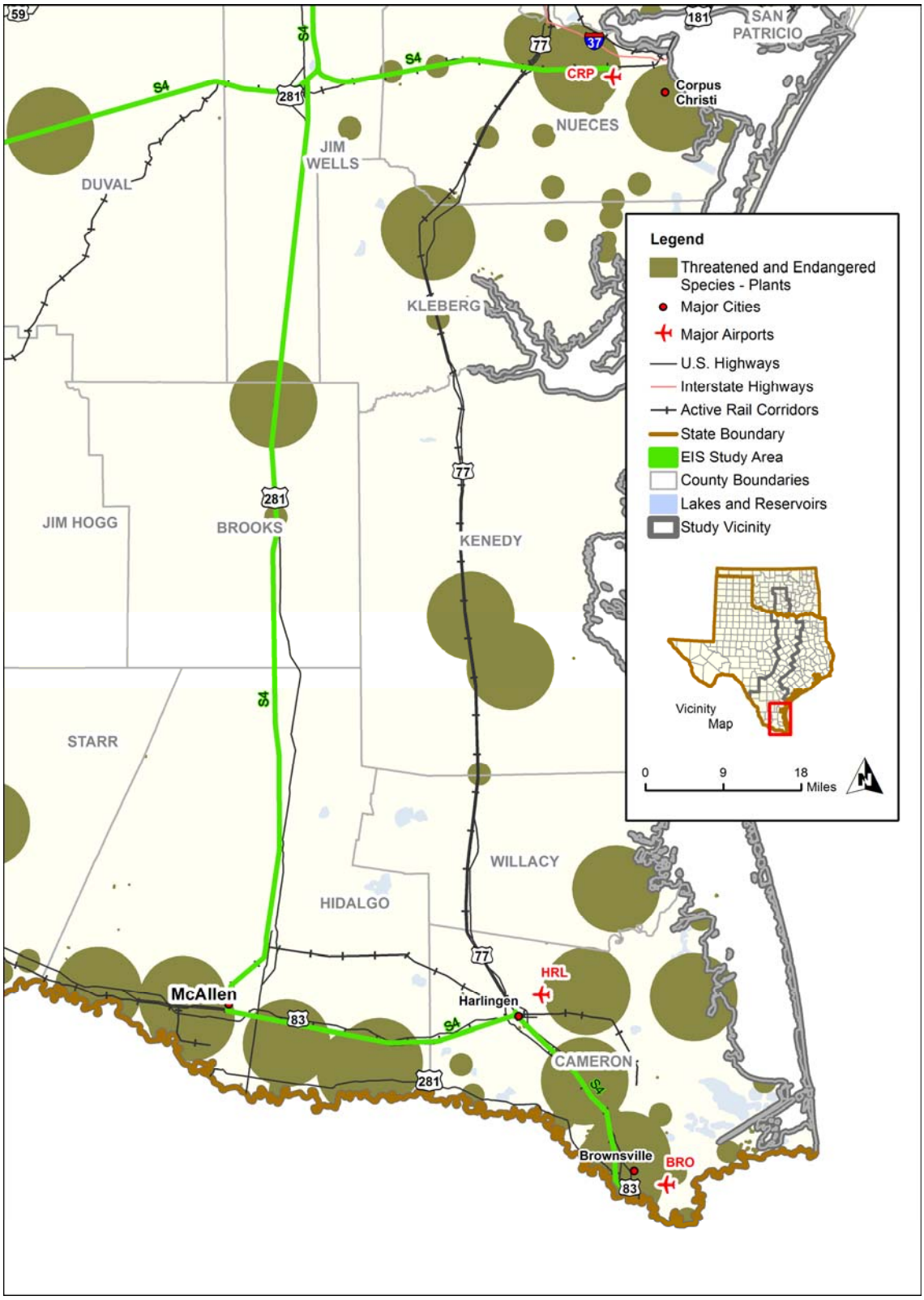

Figure 3.7-6: Sensitive Plant Species Occurrences – Alternative S4

As shown on Figures 3.7-7 through 3.7-9, most of the known occurrences of listed wildlife species that intersect with the EIS Study Area of Alternative S4 Higher-Speed Rail are in Brooks, Cameron, Hidalgo, Jim Wells, Live Oak, and Nueces Counties, in areas of the alternative that would be constructed on an existing abandoned rail.

Additionally, and also based on the dataset and the county-by-county list acquired from TXNDD, listed wildlife habitat for the state-listed Texas tortoise is within the EIS Study Area for Alternative S6 Higher-Speed Rail.

3.7.3.3.3 Habitat

Based on the spatial dataset and county-by-county list acquired from TXNDD, corresponding habitat areas were assumed to be present within the EIS Study Areas for the Southern Section alternatives.

3.7.4 Environmental Consequences

3.7.4.1 Overview

Effects from the alternatives and associated infrastructure can be broadly classified into construction and operations effects.

Long-term or permanent effects and short-term effects on threatened and endangered species and habitats would be anticipated as a result of constructing any of the build alternatives. Long-term or permanent effects on vegetation, including sensitive plant species, would occur from clearing for construction, staging of equipment, and stockpiling of soil, ballast, or other construction materials, as well as from permanent structures. Short-term effects on adjacent habitats and their corresponding wildlife, including threatened and endangered species, would be caused by noise, vibration, and air pollution from construction equipment and activities. In general, conventional rail would have fewer construction effects on threatened and endangered species because it would follow existing rail alignments, with minimal new right-of-way. Higher-speed and high-speed rail service types would have greater effects during construction because some or all of the alternative would be constructed in new corridors, outside existing transportation corridors.

Operations effects on wildlife for conventional and higher-speed rail would include making wildlife movement vulnerable to an increased risk of strikes from the additional rail traffic along the routes. High-speed rail would be completely fenced; therefore, the risk of strikes would be lower for this service type. However, the construction of new tracks on rail bed elevated above the floodplain and construction of fenced alignments could create barriers to wildlife movement,, particularly amphibians and reptiles. High-speed rail would be fully grade-separated; therefore, more passages for wildlife would likely be included.

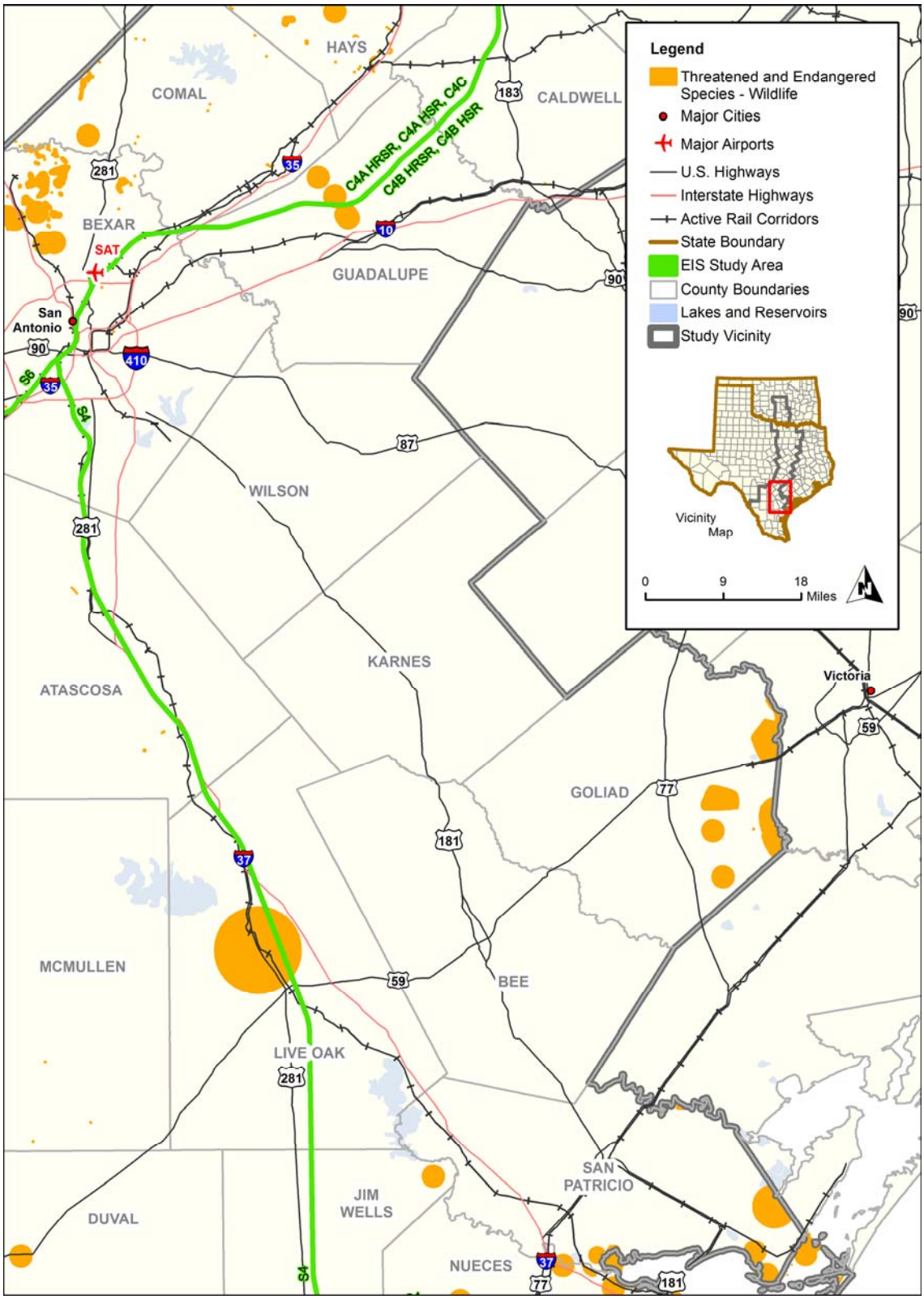

Figure 3.7-7: Sensitive Wildlife Species Occurrences – Alternative S4

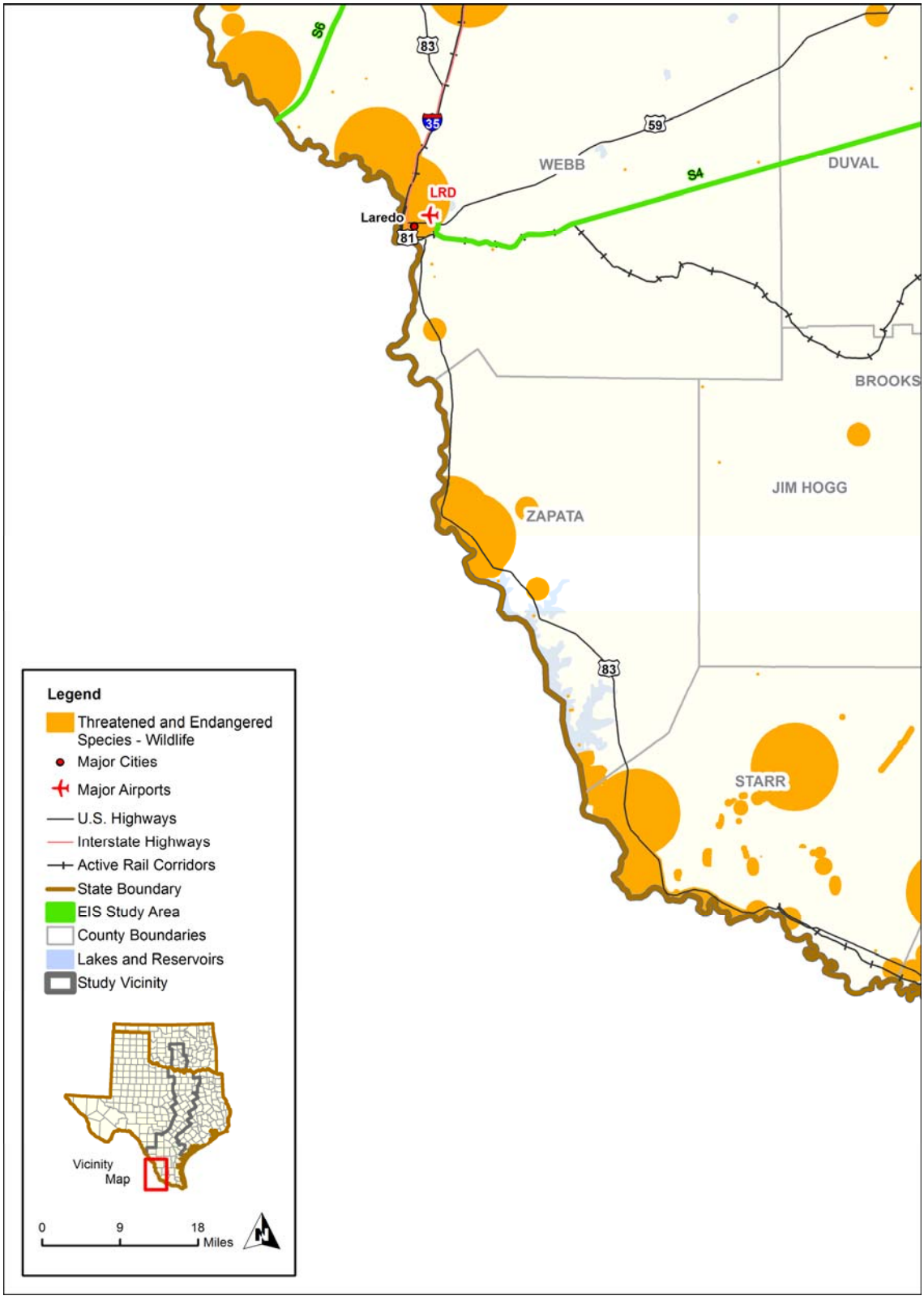

Figure 3.7-8: Sensitive Wildlife Species Occurrences – Alternative S4

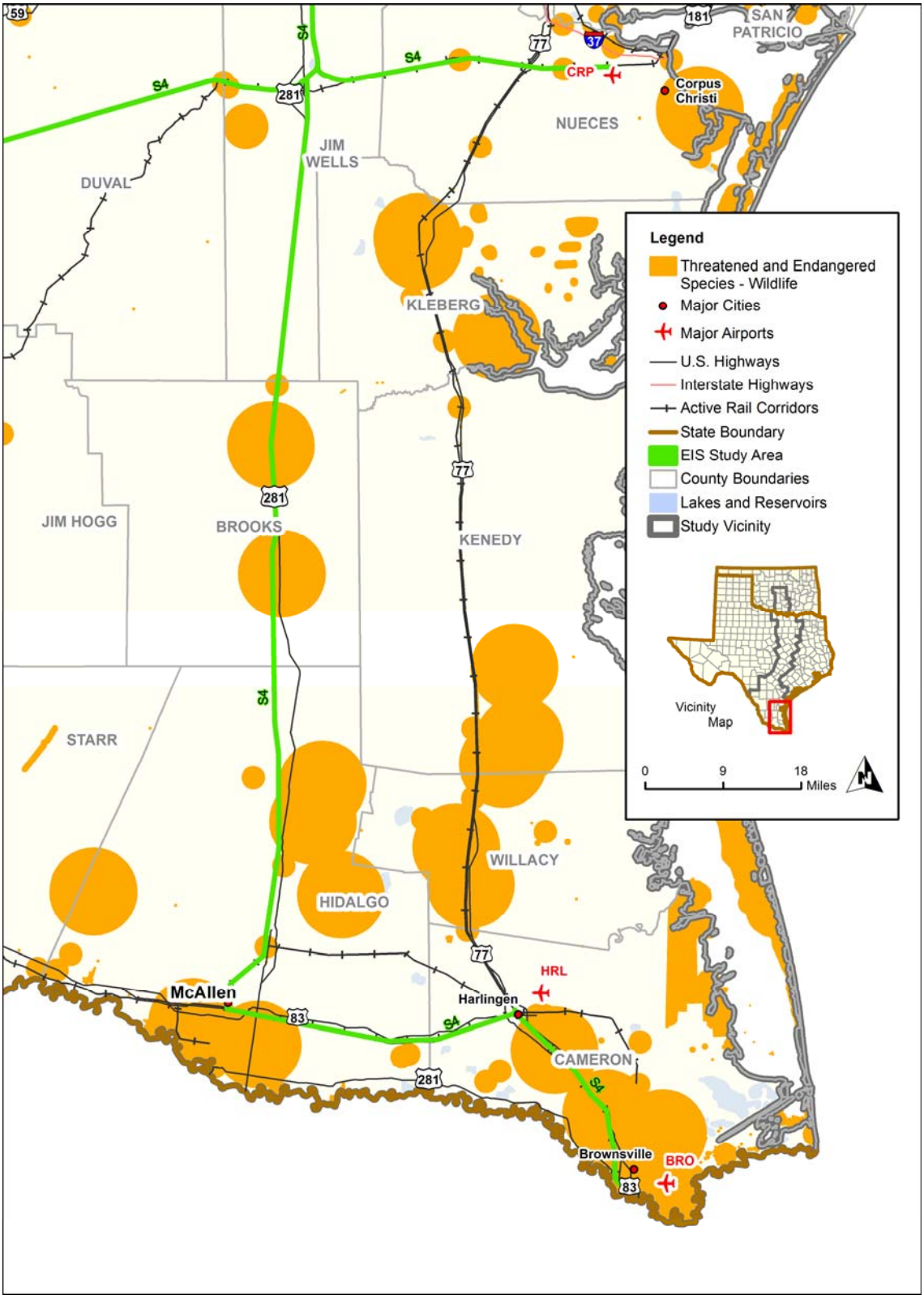

Figure 3.7-9: Sensitive Wildlife Species Occurrences – Alternative S4

3.7.4.2 No Build Alternative

The No Build Alternative, as described in Chapter 2, Section 2.2, and Chapter 3, Introduction, is used as the baseline for comparison. The No Build Alternative would not implement the Program of rail improvements associated with this service-level evaluation and would not meet the purpose and need of the Program; therefore, the No Build Alternative would not affect threatened, endangered, or sensitive species, nor any habitat.

3.7.4.3 Northern Section: Oklahoma City to Dallas and Fort Worth

3.7.4.3.1 Alternative N4A Conventional

Sensitive Plant Effects

No federally or state-listed plant species occurrences were identified within the EIS Study Area for Alternative N4A Conventional. As reflected in Table 3.7-6, there are a number of TPWD Species of Greatest Conservation Need (SGCN) identified in the northern section. Therefore, effects on sensitive plant species from construction and operation of Alternative N4A Conventional would be moderate.

Sensitive Wildlife Effects

As shown in Table 3.7-6, there are special-status species, some of which are federally listed as endangered or threatened, that have the potential to occur in the counties crossed by Alternative N4A Conventional.

Alternative N4A Conventional would follow the existing Burlington Northern Santa Fe (BNSF) rail alignment and Trinity Railway Express (TRE) tracks, and construction of this alternative would likely occur in existing right-of-way, in areas that have already been disturbed by prior rail development. However, the probability of listed species occurring within existing rights-of-way still exists, even with the noise and land disturbances associated with the existing active rail line operation and maintenance. Therefore, construction effects on sensitive wildlife species of Alternative N4A Conventional would be moderate.

Operations effects for Alternative N4A Conventional would be moderate because this alternative would not likely be fenced, making wildlife, including the listed species known to occur in the EIS Study Area, vulnerable to an increased risk for strikes from the additional rail traffic along the route. While this alternative would not be fully fenced the corridor improvements and increase rail traffic could potentially prohibit wildlife crossings and create barriers to movement for small wildlife. Additionally, more noise and vibration from the added rail traffic along the route could disrupt listed species in the area. Various habitats throughout the EIS Study Area could be potential roosting/nesting habitat for a variety of migratory and resident birds (including federally and state-listed species). Removal of, or disturbance to the habitat during the bird nesting season (February 1 to September 15) could result in effects on nesting species that are protected by the MBTA. Such effects would have a noticeable effect on wildlife, including sensitive species, but could be reduced

by the use of best management practices (BMPs) (see Section 3.7.5, Avoidance, Minimization, and Mitigation Strategies).

Habitat Effects

Construction of this alternative would likely occur in existing transportation corridors, in areas that have already been disturbed by prior rail development. However, potential effects on sensitive plants and wildlife within these habitat areas from construction and operation of Alternative N4A Conventional would be moderate. If disturbance outside existing rail corridors are necessary (i.e., vegetation clearance, staging), BMPs could be implemented during construction and operation to limit potential effects on the small, linear area of habitat (see Section 3.7.5, Avoidance, Minimization, and Mitigation Strategies).

3.7.4.4 Central Section: Dallas and Fort Worth to San Antonio

Most potential effects on threatened and endangered species would be the same among the Central Section alternatives. Corresponding occurrences of habitat were identified within the EIS Study Area for any of the alternatives would also be the same among the Central Section alternatives. These potential effects are described below.

3.7.4.4.1 Alternative C4A Higher-Speed Rail

Sensitive Plant Effects

No federally or state-listed plant species occurrences were identified within the EIS Study Area for Alternative C4A Higher-Speed Rail. However, species with TWPD ranking of SGCN and a species that is a candidate to be federally ranked were identified within the EIS Study Area (see Table 3.7-6). Therefore, construction and operation effects on sensitive plant species from Alternative C4A Higher-Speed Rail would be moderate when compared with the No Build Alternative.

Sensitive Wildlife Effects

The potential effects on listed wildlife species of construction of Alternative C4A Higher-Speed Rail would be substantial because construction would occur outside existing transportation corridors that would have a noticeable, inevitable effect on these resources within the EIS Study Area. Short- and long-term effects on the one candidate species identified above, along with species with TPWD rankings could occur as a result of constructing Alternative C4A Higher-Speed Rail and could include the temporary clearing of potential habitat for construction equipment and the stockpiling of soil, ballast, or other construction materials. Additionally, short-term noise, vibration, and air pollution from construction equipment and activities could temporarily affect listed species by disrupting life history requirements (foraging, nesting). Potential operations effects would be moderate from disruption of candidate/ranked species from noise and vibration from the added rail traffic along the route and even though this alternative would not be fully fenced the corridor improvements and introduction of rail traffic could potentially prohibit wildlife crossings and create barriers to movement for small wildlife. Operations effects would have a noticeable effect on

wildlife, but the effects could be reduced by the use of BMPs (see Section 3.7.5, Avoidance, Minimization, and Mitigation Strategies).

Habitat Effects

Habitat was identified within the EIS Study Area for C4A Higher-Speed Rail and based upon the potential for sensitive plants and wildlife within these habitat areas the effects on habitat from construction and operation would be moderate.

3.7.4.4.2 Alternative C4A High-Speed Rail

Sensitive Plant Effects

Potential effects on sensitive plants would be the same as those discussed for Alternative C4A Higher-Speed Rail because both service types would share the same route. Construction and operations effects would be moderate when compared with the No Build Alternative.

Sensitive Wildlife Effects

Potential construction effects on sensitive wildlife species would be the same as those discussed for Alternative C4A Higher-Speed Rail (substantial) because both service types would share the same route. Alternative C4A High-Speed Rail would likely be fully fenced, lessening the likelihood of strikes when compared with the higher-speed rail option. Alternative C4A High-Speed Rail would also have a higher potential for operations effects because the introduction of a fully fenced corridor would create barriers to and potentially effect wildlife movement. Additionally, the noise and vibration generated by high-speed rail would travel farther than the noise generated by higher-speed rail. Overall, the potential operations effects on sensitive wildlife would be moderate..

Habitat Effects

Potential effects on habitat would be the same as those discussed for Alternative C4A Higher-Speed Rail because both service types would share the same route. Construction and operations effects would be moderate.

3.7.4.4.3 Alternative C4B Higher-Speed Rail

Sensitive Plant Effects

No federally or state-listed plant species occurrences were identified within the EIS Study Area for Alternative C4B Higher-Speed Rail. However, species with TWPD ranking of SGCN were identified within the EIS Study Area (See Table 3.7-6). Therefore, effects on sensitive plant species, with TWPD rankings, from construction and operation would be moderate.

Sensitive Wildlife Effects

The potential effects on listed wildlife species from construction of Alternative C4B Higher-Speed Rail would be substantial because construction of the portions of the alternative that would be located outside existing transportation corridors would have a noticeable effect on these resources within the EIS Study Area. Short- and long-term effects could occur as a result of constructing Alternative C4B Higher-Speed Rail. Construction activities could include the temporary clearing of

potential habitat for construction equipment and the stockpiling of soil, ballast, or other construction materials. Additionally, short-term noise, vibration, and air pollution from construction equipment and activities could temporarily affect listed species by disrupting life history requirements (foraging, nesting). Potential operations effects would be considered moderate because of disruption of listed species from noise and vibration from the added rail traffic along the route, and even though this alternative would not be fully fenced the corridor improvements and introduction of rail traffic could potentially prohibit wildlife crossings and create barriers to movement. Such effects would have a noticeable effect on wildlife, but the effects could be reduced by the use of BMPs (see Section 3.7.5, Avoidance, Minimization, and Mitigation Strategies).

Habitat Effects

Habitat was identified within the EIS Study Area for Alternative C4B Higher-Speed Rail, and based upon the potential for sensitive plants and wildlife within these habitat areas the construction and operations effects on habitat would be moderate.

3.7.4.4.4 Alternative C4B High-Speed Rail

Sensitive Plant Effects

Potential effects on sensitive plants would be the same as those discussed for Alternative C4B Higher-Speed Rail because both service types would share the same route. Construction and operations effects would be moderate when compared with the No Build Alternative.

Sensitive Wildlife Effects

Potential construction effects on sensitive wildlife species would be the same as those discussed for Alternative C4B Higher-Speed Rail (substantial) because both service types would share the same route. Alternative C4B High-Speed Rail would likely be fully fenced, lessening the likelihood of strikes, but introducing an additional barrier to wildlife movement when compared with the higher-speed rail option. Alternative C4B High-Speed Rail would also have a higher potential for operations effects because the noise and vibration generated by high-speed rail would travel farther than the noise generated by higher-speed rail. Overall, the potential operations effects on sensitive wildlife would be moderate.

Habitat Effects

Potential effects on habitat would be the same as those discussed for Alternative C4B Higher-Speed Rail because both service types would share the same route. Construction and operations effects would be moderate.

3.7.4.4.5 Alternative C4C Higher-Speed Rail

Sensitive Plant Effects

No federally or state-listed plant species occurrences were identified within the EIS Study Area for Alternative C4C Higher-Speed Rail. However, a number of species with a TWPD ranking of SGCN

were identified within the EIS Study Area (See Table 3.7-6). Therefore, effects on sensitive plant species from construction and operation of Alternative C4C Higher-Speed Rail would be moderate.

Sensitive Wildlife Effects

The potential effects on listed wildlife species from construction of Alternative C4C Higher-Speed Rail would be substantial because construction of the portions of the alternative that would be located outside existing transportation corridors and would have a noticeable effect on these resources within the EIS Study Area.

Short- and long-term effects could occur as a result of constructing Alternative C4C Higher-Speed Rail and could include the temporary clearing of potential habitat for construction equipment and the stockpiling of soil, ballast, or other construction materials. Additionally, short-term noise, vibration, and air pollution from construction equipment and activities could temporarily affect listed species by disrupting life history requirements (foraging, nesting). Potential operations effects would be moderate because of disruption of listed species from noise and vibration from the added rail traffic along the route, and even though this alternative would not be fully fenced the corridor improvements and introduction of rail traffic could potentially prohibit wildlife crossings and create barriers to movement. Such effects would have a noticeable effect on wildlife, but the effects could be reduced by the use of BMPs (see Section 3.7.5, Avoidance, Minimization, and Mitigation Strategies).

Habitat Effects

Habitat was identified within the EIS Study Area for Alternative C4C Higher-Speed Rail, and based upon the potential for sensitive plants and wildlife within these habitat areas the construction and operations effects on habitat from construction and operation of Alternative C4C Higher-Speed Rail would be moderate.

3.7.4.4.6 Alternative C4C High-Speed Rail

Sensitive Plant Effects

Potential effects on sensitive plants would be the same as those discussed for Alternative C4C Higher-Speed Rail because both service types would share the same route. Construction and operations effects would be moderate when compared with the No Build Alternative.

Sensitive Wildlife Effects

Potential construction effects on sensitive wildlife species would be the same as those discussed for Alternative C4C Higher-Speed Rail (substantial) because both service types would share the same route. Alternative C4C High-Speed Rail would likely be fully fenced, lessening the likelihood of strikes when compared with the higher-speed rail option. However, Alternative C4C High-Speed Rail would have a higher potential for operations effects by introducing an additional barrier to wildlife movement, as well as the overall effect on wildlife corridors and assemblages within the EIS Study Area because the noise and vibration generated by high-speed rail would travel farther than the

noise generated by higher-speed rail. Overall, the potential operations effects on sensitive wildlife would be moderate.

Habitat Effects
Potential effects on habitat would be the same as those discussed for Alternative C4C Higher-Speed Rail because both service types would share the same route. Construction and operations effects would be moderate.

3.7.4.5 Southern Section: San Antonio to South Texas

In the Southern Section, overall potential effects on threatened and endangered species would be greater under Alternative S4 Higher-Speed Rail compared with the two S6 alternatives. Alternative S6 Higher-Speed Rail would have the same potential construction effects as S6 High-Speed Rail, but because noise and vibration from high-speed rail travel farther than they do with higher-speed rail and because of the potential barriers to wildlife movement that would be introduced, Alternative S6 Higher-Speed rail would have less overall potential operations effects than S6 High-Speed Rail. These potential effects are described below.

3.7.4.5.1 Alternative S4 Higher-Speed Rail

Sensitive Plant Effects
Although significant portions of Alternative S4 Higher-Speed Rail would be constructed within existing routes (e.g., Kansas City Southern Railway and revitalization of abandoned tracks), effects during construction on sensitive plant species along the portions of the route outside existing transportation corridors would be considered a substantial potential effect when compared with the No Build Alternative. Effects on listed plant species outside existing transportation corridors would primarily occur during construction and could include the clearing of vegetation for construction equipment and the stockpiling of soil, ballast, or other construction materials. Such effects would be considered long-term to permanent for portions of the alternative outside existing transportation corridors and would have a noticeable, inevitable effect on listed plant species.

Operation of Alternative S4 Higher-Speed Rail would include new alignments outside of existing transportation corridors. Based upon these new alignments, operational related effects to sensitive plants would therefore be considered moderate.

Sensitive Wildlife Effects
Although significant portions of Alternative S4 Higher-Speed Rail would be constructed within existing routes, effects on sensitive wildlife species along the portions of the route that would be outside existing transportation corridors would be a substantial potential effect. Effects on listed wildlife species could occur as a result of constructing the portions of Alternative S4 Higher-Speed Rail outside existing transportation corridors. Effects could include the clearing of vegetation for construction equipment and the stockpiling of soil, ballast, or other construction materials. Such effects would be considered long-term to permanent. Additionally, short-term noise, vibration, and

air pollution from construction equipment and activities could temporarily affect listed species by disrupting life history requirements or causing avoidance behavior.

Potential operations effects would be moderate because of disruption of listed species from noise and vibration from the added rail traffic along the route, and even though this alternative would not be fully fenced the corridor improvements and introduction of rail traffic could potentially prohibit wildlife crossings and create barriers to movement. Such effects would have a noticeable effect on wildlife, but the effects could be reduced by the use of BMPs (see Section 3.7.5, Avoidance, Minimization, and Mitigation).

Habitat Effects

Habitat was identified within the EIS Study Area for Alternative S4 Higher-Speed Rail, and based upon the potential for sensitive plants and wildlife within these habitat areas the effects on habitat from construction and operation of Alternative S4 Higher-Speed Rail would be moderate.

3.7.4.5.2 Alternative S6 Higher-Speed Rail

Sensitive Plant Effects

Alternative S6 Higher-Speed Rail would be constructed within a new transportation corridor and effects during construction and operation on sensitive plant species, including species with TWPD ranking of SGCN within the EIS Study Area (See Table 3.7-6), would be considered moderate when compared with the No Build Alternative.

Sensitive Wildlife Effects

Based on the dataset and the county-by-county list acquired from TXNDD, listed wildlife habitat does have the potential to occur within the EIS Study Area for Alternative S6 Higher-Speed Rail, and potential effects on sensitive wildlife species from construction of Alternative S6 Higher-Speed Rail would be moderate. Potential operations effects would be moderate because of disruption of listed species from noise and vibration from the added rail traffic along the route, and even though this alternative would not be fully fenced the corridor improvements and introduction of rail traffic could potentially prohibit wildlife crossings and create barriers to movement. Such effects would have a noticeable effect on wildlife, but the effects could be reduced by the use of BMPs (see Section 3.7.5, Avoidance, Minimization, and Mitigation).

Habitat Effects

Habitat was identified within the EIS Study Area for Alternative S6 Higher-Speed Rail, and based upon the potential for sensitive plants and wildlife within these habitat areas the effects on habitat from construction and operation of Alternative S6 Higher-Speed Rail would be moderate.

3.7.4.5.3 Alternative S6 High-Speed Rail

Sensitive Plant Effects

Potential effects on sensitive plants would be the same as those discussed for Alternative S6 Higher-Speed Rail because both service types would share the same route. The construction and operations effects would be moderate.

Sensitive Wildlife Effects

Potential construction effects on sensitive wildlife species would be the same as those discussed for Alternative S6 Higher-Speed Rail because both service types would share the same route. Alternative S6 High-Speed Rail would likely be fully fenced, lessening the likelihood of strikes when compared with the higher-speed rail option. However, Alternative S6 High-Speed Rail would have a higher potential for operations effects because the alternative would be fully fenced thereby creating an additional barrier to wildlife movement. Additional effects related to noise and vibration generated by high-speed rail would travel farther and be greater than the noise generated by higher-speed rail. Overall, the potential operations effects on sensitive wildlife would be moderate.

Habitat Effects

Potential effects on habitat would be the same as those discussed for Alternative S6 Higher-Speed Rail because both service types would share the same route. The construction and operations effects would be moderate.

3.7.4.6 Summary of Potential Effects

The construction and operation of Alternative N4A Conventional Rail would have a moderate effect on sensitive plants, wildlife, and the corresponding habitat. The moderate effects are because there is a potential presence of SGCN plant species and federally and state listed wildlife. The alternative would not likely be fenced, making wildlife (including listed species) vulnerable to an increased risk for strikes from the additional rail traffic.

The Central Section build alternatives would have a moderate effect on sensitive plant species and habitats because there is a potential for SGCN ranked plants to occur within the EIS Study Area. However, construction of the Central Section build alternatives would have a substantial effect on sensitive wildlife species because of the potential effects on federally listed and sensitive species known to occur in the portions of the EIS Study Area. From an operations standpoint, effects would be moderate, because disruption of wildlife species from noise and vibration. The potential for barriers to wildlife movement from the higher and high-speed rail alternatives would also contribute and result in a moderate effect. The Central Section alternatives would all have a negligible effect on habitat.

Alternative S4 Higher-Speed Rail in the Southern Section would have a substantial effect on sensitive plant and wildlife species from construction and a moderate effect from operations. Both sensitive plant and wildlife species have the potential to occur within the EIS Study Area, and the

corresponding effect on habitat would also be moderate. Within portions of the alternative outside existing transportation corridors, effects would be long-term or permanent and would likely adversely affect threatened and endangered species. The S6 alternatives would be constructed in a new, direct route, outside existing transportation corridors, construction of the S6 alternatives in the Southern Section would be moderate because of sensitive wildlife species within the EIS Study Area.

Table 3.7-5 summarizes the qualitative assessment of potential effects (negligible, moderate, or substantial) for the alternatives and also includes measures that could be taken to avoid or reduce the potential effects of the alternatives. As stated previously, this service-level analysis did not include detailed fieldwork to identify potential habitats or populations of sensitive, threatened and endangered species. This service-level analysis uses the 500-foot EIS Study Area to determine the types of resources that may be affected, and, more importantly, the relative magnitude of resources that may be affected. Some alternatives could be built alone or combined with other section alternatives. In addition, more than one alternative in the Central and Southern sections could be built in the future because the alternatives provide different service options for the independent destinations. Details about how alternatives might connect, as well as measures to reduce effects, would be analyzed at the project-level EIS phase.

3.7.5 Avoidance, Minimization, and Mitigation Strategies

Avoidance and minimization of effects will be incorporated when feasible. If effects cannot be avoided or minimized, mitigation strategies will be implemented. All BMPs, design features, and mitigation measures to reduce or eliminate impacts on sensitive plants, habitats and species would be coordinated with federal and state agencies. To minimize construction effects and minimize disturbance of terrestrial and aquatic habitats and wildlife, BMPs used during construction and operation would include, but not be limited to, the following:

- Confirm the boundaries of listed plant and wildlife habitat prior to the start of construction to avoid or minimize effects on these areas.
- Conduct preconstruction surveys and monitoring in advance of clearing, grading, or construction to identify protected nest sites and avoid these areas until nesting has completed.
- Implement seasonal restrictions on construction work during key breeding, nesting, migration, and growth periods to protect individual species.
- Construct multiple and varying crossing structures at crossing points to provide connectivity and movement for species likely to use a given area.
- Construct at least one crossing structure within an individual's home range and where suitable habitat for species occurs (if possible) on both sides of the crossing structure.
- Monitor structures/features for obstructions, such as detritus or silt blockages, that impede movement.

- Manage human activity near crossing structures with the use of fencing, signage, etc.
- Provide for the mitigation of project areas by improving marginal habitats or creating mitigation banks at key locations within the affected watersheds and habitat ranges, as necessary.

Local ordinances would be followed for erosion, sediment, and stormwater controls during construction to minimize potential effects on aquatic resources. For terrestrial habitats that might be temporarily disturbed by construction, pre-construction conditions or better would be restored once construction is complete.

3.7.6 Subsequent Analysis

Once project level analysis, based upon a preferred alternative has been identified a diverse set of additional efforts will be conducted. A Section 7 Endangered Species Act Consultation will be conducted and project level investigations will be done to evaluate the project's impacts. These will include, but will not be limited to, the following evaluations and coordination with USFWS, TPWD, and ODWC:

- Conduct field investigations and on-the-ground surveys to identify actual critical habitats within the project-level study area. These efforts will be conducted consistent and commensurate with Section 4 of the ESA and also in direct consultation with the USFWS and NMFS designations, as applicable, to develop avoidance and minimization strategies, and to determine the likelihood of impacts on listed species and their corresponding habitats within the respective project area.
- Conduct critical habitats and species assessments, including formal biological assessments for protected species, in accordance with USFWS guidelines and state regulations, as needed.
- Analyze and evaluate the options for wildlife movement and crossings.
- Obtain, interpret, evaluate and incorporate applicable datasets from the TXNDD, the TPWD Rare, Threatened and Endangered Species of Texas by County (Interactive Mapping Tool/Data Warehouse), and the corresponding GIS shapefiles to establish acreages for sensitive plants, wildlife, and their habitats.

Table 3.7-5: Summary of Effects on Threatened and Endangered Species and Their Habitat

Alternative[a]	Sensitive Plants		Sensitive Wildlife		Habitat	
	Construction	Operations	Construction	Operations	Construction	Operations
N4A CONV	**Moderate** ▪ Potential TPWD SGCN Species	**Moderate** ▪ Potential to effect Special-status species	**Moderate** ▪ Federally listed species ▪ Other sensitive species ▪ Alternative would be located within existing transportation corridors	**Moderate** ▪ Alternative would not likely be fenced, making wildlife movement vulnerable to increased risk for strikes from additional rail traffic ▪ Best management practices could mitigate effects	**Moderate** ▪ Alternative would be located within existing transportation corridors with sensitive plants and wildlife and the corresponding habitat have the potential to occur	**Moderate** ▪ Most effects would be during construction ▪ Alternative would be located within existing transportation corridors, in areas already disturbed by rail development; however, these same areas include sensitive plants and wildlife and the corresponding habitat have the potential to occur
C4A HrSR	**Moderate** ▪ Potential TPWD SGCN Species ▪ Potential Candidate for Federal Listing	**Moderate** ▪ Potential TPWD SGCN Species ▪ Potential Candidate for Federal Listing	**Substantial** ▪ Federally listed species ▪ Other sensitive species ▪ Most of alternative outside existing transportation corridors ▪ Effects would be considered long-term or permanent and would likely adversely affect threatened and endangered species	**Moderate** ▪ Disruption of species from noise and vibration would occur ▪ Alternative could be designed with alternative pathways or undercrossings to maintain wildlife migratory paths or corridors	**Moderate** ▪ Habitat consistent with potential sensitive plants and wildlife	**Moderate** ▪ Habitat consistent with potential sensitive plants and wildlife
C4A HSR	Same as C4A HrSR	Same as C4A HrSR	Same as C4A HrSR	**Moderate** ▪ Would likely be fully fenced, lessening the likelihood of strikes when compared with C4A HrSR but would introduce a new barrier to wildlife movement. ▪ Higher overall potential for effects as noise and vibration generated would travel farther than that generated by HrSR	Same as C4A HrSR	Same as C4A HrSR

Alternative[a]	Sensitive Plants		Sensitive Wildlife		Habitat	
	Construction	Operations	Construction	Operations	Construction	Operations
C4B HrSR	**Moderate** ▪ Potential TPWD SGCN Species Potential Candidate for Federal Listing	**Moderate** Potential to effect Special-status species	**Substantial** ▪ Federally listed species ▪ Other sensitive species ▪ Most of alternative outside existing transportation corridors ▪ Effects would be considered long-term or permanent and would likely adversely affect threatened and endangered species	**Moderate** ▪ Disruption of species from noise and vibration would occur ▪ Alternative could be designed with alternative pathways or undercrossings to maintain wildlife migratory paths or corridors	**Moderate** ▪ Habitat consistent with potential sensitive plants and wildlife	**Moderate** ▪ Habitat consistent with potential sensitive plants and wildlife
C4B HSR	Same as C4B HrSR	Same as C4B HrSR	Same as C4B HrSR	**Moderate** ▪ Would likely be fully fenced, lessening the likelihood of strikes when compared with C4A HrSR but would introduce a new barrier to wildlife movement ▪ Higher overall potential for effects as noise and vibration generated would travel farther than that generated by HrSR	Same as C4B HrSR	Same as C4B HrSR
C4C HrSR	**Moderate** ▪ Potential TPWD SGCN Species ▪ Potential Candidate for Federal Listing	**Moderate** ▪ Potential TPWD SGCN Species ▪ Potential Candidate for Federal Listing	**Substantial** ▪ Federally listed species ▪ Other sensitive species ▪ Most of alternative outside existing transportation corridors ▪ Effects would be considered long-term or permanent and would likely adversely affect threatened and endangered species	**Moderate** ▪ Disruption of species from noise and vibration would occur ▪ Alternative could be designed with alternative pathways or undercrossings to maintain wildlife migratory paths or corridors	**Moderate** ▪ Habitat consistent with potential sensitive plants and wildlife	**Moderate** ▪ Habitat consistent with potential sensitive plants and wildlife
C4C HSR	Same as C4C HrSR	Same as C4C HrSR	Same as C4C HrSR	**Moderate** ▪ Would likely be fully fenced, lessening the likelihood of strikes when compared with C4A HrSR but would introduce a new barrier to wildlife movement Higher overall potential for effects as noise and vibration generated would travel farther than that generated by HrSR	Same as C4C HrSR	Same as C4C HrSR

Alternative[a]	Sensitive Plants		Sensitive Wildlife		Habitat	
	Construction	Operations	Construction	Operations	Construction	Operations
S4 HrSR	**Substantial** ▪ Federally listed species ▪ Other sensitive species ▪ Portions of alternative outside existing transportation corridors ▪ Effects would be considered long-term or permanent and would likely adversely affect threatened and endangered species	**Moderate** ▪ Federally listed species ▪ Other sensitive species	**Substantial** ▪ Federally listed species ▪ Other sensitive species ▪ Portions of alternative outside existing transportation corridors ▪ Effects would be considered long-term or permanent and would likely adversely affect threatened and endangered species	**Moderate** ▪ Disruption of species from noise and vibration would occur ▪ Alternative could be designed with alternative pathways or undercrossings to maintain wildlife migratory paths or corridors	**Moderate** ▪ Habitat consistent with potential sensitive plants and wildlife	**Moderate** ▪ Habitat consistent with potential sensitive plants and wildlife
S6 HrSR	**Moderate** ▪ Potential to affect Special-status species	**Moderate** ▪ Potential to affect Special-status species	**Moderate** ▪ Federally listed species ▪ other sensitive species ▪ Effects could be reduced with preconstruction surveys, translocation, and monitoring	**Moderate** ▪ Disruption of species from noise and vibration would occur ▪ Alternative could be designed with alternative pathways or undercrossings to maintain wildlife migratory paths or corridors	**Moderate** ▪ Habitat consistent with potential sensitive plants and wildlife	**Moderate** • Habitat consistent with potential sensitive plants and wildlife
S6 HSR	Same as S6 HrSR	Same as S6 HrSR	Same as S6 HrSR	**Moderate** ▪ Would likely be fully fenced, lessening the likelihood of strikes when compared with C4A HrSR but would introduce a new barrier to wildlife movement Higher overall potential for effects as noise and vibration generated would travel farther than that generated by HrSR	Same as S6 HrSR	Same as S6 HrSR

[a] CONV = conventional rail; HrSR = higher-speed rail; HSR = high-speed rail

Table 3.7-6: Sensitive Species with the Potential to Occur within EIS Study Area

Common Name	Scientific Name	Status (Federal/State/ TPWD Ranking)[a]
PLANT SPECIES		
Northern Section		
Alternative N4A Conventional		
Auriculate false foxglove	*Aganlinis auriculata*	-- / -- / SGCN
Glass Mountains coral-root	*Hexalectris nitida*	-- / -- / SGCN
Glen Rose yucca	*Yucca necopina*	-- / -- / SGCN
Hall's prairie clover	*Dalea hallii*	-- / -- / SGCN
Osage Plains false foxglove	*Agalinis densiflora*	-- / -- / SGCN
Plateau milkvine	*Matelea edwardsensis*	-- / -- / SGCN
Reverchon's curfpea	*Pediomelum reverchonii*	-- / -- / SGCN
Shumard's morning glory	*Ipomea shumardiana*	-- / -- / SGCN
Texas milk vetch	*Astragalus reflexus*	-- / -- / SGCN
Tree dodder	*Cuscuta exaltata*	-- / -- / SGCN
Topeka purple-coneflower	*Echinacea atrorubens*	-- / -- / SGCN
Warnock's coral-root	*Hexalectris warnockii*	-- / -- / SGCN
Central Section		
Alternative C4A Higher-Speed Rail and C4A High-Speed Rail		
Big Red sage	*Salvia pentstemonoides*	-- / -- / SGCN
Bracted twistflower	*Streptanthus bracteatus*	C / -- / --
Buckley tridens	*Tridens buckleyanus*	-- / -- / SGCN
Burridge greenthread	*Thelesperma burridgeanum*	-- / -- / SGCN
Correll's flase dragon-head	*Physostegia correllii*	-- / -- / SGCN
Elmendorf's onion	*Allium elmendorfii*	-- / -- / SGCN
Glass Mountains coral-root	*Hexalectris nitida*	-- / -- / SGCN
Osage Plains false foxglove	*Agalinis densiflora*	-- / -- / SGCN
Plateau milkvine	*Matelea edwardsensis*	-- / -- / SGCN
Scarlet leather-flower	*Clematis texensis*	-- / -- / SGCN
Sycamore-leaf snowbell	*Styrax platanifolius ssp. Platanifolius*	-- / -- / SGCN
Texabama croton	*Croton alabamensis var texensis*	-- / -- / SGCN
Texas almond	*Prunus minutiflora*	-- / -- / SGCN

Common Name	Scientific Name	Status (Federal/State/ TPWD Ranking)[a]
Texas fescue	*Festuca versuta*	-- / -- / SGCN
Texas milk vetch	*Astragalus reflexus*	-- / -- / SGCN
Tree dodder	*Cuscuta exaltata*	-- / -- / SGCN
Alternative C4B Higher-Speed Rail and C4B High-Speed Rail		
Auriculate false foxglove	*Agalinis auriculata*	-- / -- / SGCN
Arrowleaf milkvine	*Matelea sagittifolia*	-- / -- / SGCN
Basin bellflower	*Campanula reverchonii*	-- / -- / SGCN
Big red sage	*Salvia pentstemonoides*	-- / -- / SGCN
Boerne bean	*Phaseolus texensis*	-- / -- / SGCN
Bracted twistflower	*Streptanthus bracteatus*	C / -- / SGCN
Buckley tridens	*Tridens buckleyanus*	-- / -- / SGCN
Burridge greenthread	*Thelesperma burridgeanum*	-- / -- / SGCN
Comal snakewood	*Colubrina stricta*	-- / -- / SGCN
Correll's false dragon-head	*Physostegia correllii*	-- / -- / SGCN
Darkstem noseburn	*Tragia nigricans*	-- / -- / SGCN
Elmendorf's onion	*Allium elmendorfii*	-- / -- / SGCN
Glass Mountains coral-root	*Hexalectris nitida*	-- / -- / SGCN
Glen Rose yucca	*Yucca necopina*	-- / -- / SGCN
Gravelbar brickellbush	*Brickeliia dentate*	-- / -- / SGCN
Green beebalm	*Monarda viridissima*	-- / -- / SGCN
Hairy sycamore-leaf snowbell	*Styrax platanifolius var. stellatus*	-- / -- / SGCN
Hall's prairie clover	*Dalea hallii*	-- / -- / SGCN
Heller's marbleseed	*Onosmodium helleri*	-- / -- / SGCN
Hill Country wild-mercury	*Argythamnia aphoroides*	-- / -- / SGCN
Low Spurge	*Euphorbia peplidion*	-- / -- / SGCN
Narrowleaf brickellbush	*Brickellia eupatorioides var. gracillima*	-- / -- / SGCN
Neat-leaf bundleflower	*Desmanthus reticulatus*	-- / -- / SGCN
Osage Plains false foxglove	*Agalinis densiflora*	-- / -- / SGCN
Parks' jointweed	*Polygonella parksii*	-- / -- / SGCN
Plateau loosestrife	*Lythrum ovalifolium*	-- / -- / SGCN
Plateau milkvine	*Maatelea edwardsensis*	-- / -- / SGCN
Reverchon's curfpea	*Pediomelum reverchonii*	-- / -- / SGCN

Common Name	Scientific Name	Status (Federal/State/ TPWD Ranking)[a]
Rock grape	*Vitis rupestris*	-- / -- / SGCN
Sandhill woolywhite	*Hymenopappus carrizoanus*	-- / -- / SGCN
Scarlet leather-flower	*Clematis texensis*	-- / -- / SGCN
Shinner's sunflower	*Helianthus occidentalis ssp plantagineus*	-- / -- / SGCN
Siler's huaco	*Manfreda sileri*	-- / -- / SGCN
South Texas spikesedge	*Eleocharis austrotexana*	-- / -- / SGCN
Spreading leastdaisy	*Chaetopappa effuse*	-- / -- / SGCN
Stanfield's beebalm	*Monarda punctate var. stanfieldii*	-- / -- / SGCN
Sycamore-leaf snowbell	*Styrax platanifolius ssp. Platanifolius*	-- / -- / SGCN
Texabama croton	*Croton alabamensis var texensis*	-- / -- / SGCN
Texas almond	*Prunus minutiflora*	-- / -- / SGCN
Texas amorpha	*Amorpha roemeriana*	-- / -- / SGCN
Texas barberry	*Berberis swaseyi*	-- / -- / SGCN
Texas fescue	*Fetsuca versuta*	-- / -- / SGCN
Texas milk vetch	*Astragalus Reflexus*	-- / -- / SGCN
Texas peachbush	*Prunus texana*	-- / -- / SGCN
Texas sandmint	*Rhododon ciliates*	-- / -- / SGCN
Texas seymeria	*Seymeria texana*	-- / -- / SGCN
Texas tauschia	*Tauschia texana*	-- / -- / SGCN
Topeka purple-coneflower	*Echinacea atrorubens*	-- / -- / SGCN
Tree dodder	*Cuscuta exalta*	-- / -- / SGCN
Warnock's coral-root	*Hexalectris warnockii*	-- / -- / SGCN
Wright's trichocoronis	*Trichocoronis wrightii var. wrightii*	-- / -- / SGCN
Alternative C4C Higher-Speed Rail and C4C High-Speed Rail		
Auriculate false foxglove	*Agalinis auriculata*	-- / -- / SGCN
Arrowleaf milkvine	*Matelea sagittifolia*	-- / -- / SGCN
Basin bellflower	*Campanula reverchonii*	-- / -- / SGCN
Big red sage	*Salvia pentstemonoides*	-- / -- / SGCN
Boerne bean	*Phaseolus texensis*	-- / -- / SGCN

Common Name	Scientific Name	Status (Federal/State/ TPWD Ranking)[a]
Bracted twistflower	*Streptanthus bracteatus*	C / -- / --
Buckley tridens	*Tridens buckleyanus*	-- / -- / SGCN
Burridge greenthread	*Thelesperma burridgeanum*	-- / -- / SGCN
Comal snakewood	*Colubrina stricta*	-- / -- / SGCN
Correll's false dragon-head	*Physostegia correllii*	-- / -- / SGCN
Darkstem noseburn	*Tragia nigricans*	-- / -- / SGCN
Elmendorf's onion	*Allium elmendorfii*	-- / -- / SGCN
Glass Mountains coral-root	*Hexalectris nitida*	-- / -- / SGCN
Glen Rose yucca	*Yucca necopina*	-- / -- / SGCN
Gravelbar brickellbush	*Brickeliia dentate*	-- / -- / SGCN
Green beebalm	*Monarda viridissima*	-- / -- / SGCN
Hairy sycamore-leaf snowbell	*Styrax platanifolius var. stellatus*	-- / -- / SGCN
Hall's prairie clover	*Dalea hallii*	-- / -- / SGCN
Heller's marbleseed	*Onosmodium helleri*	-- / -- / SGCN
Hill Country wild-mercury	*Argythamnia aphoroides*	-- / -- / SGCN
Low Spurge	*Euphorbia peplidion*	-- / -- / SGCN
Narrowleaf brickellbush	*Brickellia eupatorioides var. gracillima*	-- / -- / SGCN
Neat-leaf bundleflower	*Desmanthus reticulatus*	-- / -- / SGCN
Osage Plains false foxglove	*Agalinis densiflora*	-- / -- / SGCN
Parks' jointweed	*Polygonella parksii*	-- / -- / SGCN
Plateau loosestrife	*Lythrum ovalifolium*	-- / -- / SGCN
Plateau milkvine	*Maatelea edwardsensis*	-- / -- / SGCN
Reverchon's curfpea	*Pediomelum reverchonii*	-- / -- / SGCN
Rock grape	*Vitis rupestris*	-- / -- / SGCN
Sandhill woolywhite	*Hymenopappus carrizoanus*	-- / -- / SGCN
Scarlet leather-flower	*Clematis texensis*	-- / -- / SGCN
Shinner's sunflower	*Helianthus occidentalis ssp plantagineus*	-- / -- / SGCN
Siler's huaco	*Manfreda sileri*	-- / -- / SGCN
South Texas spikesedge	*Eleocharis austrotexana*	-- / -- / SGCN
Spreading leastdaisy	*Chaetopappa effuse*	-- / -- / SGCN
Stanfield's beebalm	*Monarda punctate var. stanfieldii*	-- / -- / SGCN

Common Name	Scientific Name	Status (Federal/State/ TPWD Ranking)[a]
Sycamore-leaf snowbell	*Styrax platanifolius ssp. Platanifolius*	-- / -- / SGCN
Texabama croton	*Croton alabamensis var texensis*	-- / -- / SGCN
Texas almond	*Prunus minutiflora*	-- / -- / SGCN
Texas amorpha	*Amorpha roemeriana*	-- / -- / SGCN
Texas barberry	*Berberis swaseyi*	-- / -- / SGCN
Texas fescue	*Fetsuca versuta*	-- / -- / SGCN
Texas milk vetch	*Astragalus Reflexus*	-- / -- / SGCN
Texas peachbush	*Prunus texana*	-- / -- / SGCN
Texas sandmint	*Rhododon ciliates*	-- / -- / SGCN
Texas seymeria	*Seymeria texana*	-- / -- / SGCN
Texas tauschia	*Tauschia texana*	-- / -- / SGCN
Topeka purple-coneflower	*Echinacea atrorubens*	-- / -- / SGCN
Tree dodder	*Cuscuta exalta*	-- / -- / SGCN
Warnock's coral-root	*Hexalectris warnockii*	-- / -- / SGCN
Wright's trichocoronis	*Trichocoronis wrightii var. wrightii*	-- / -- / SGCN
Southern Section		
Southern Alternative S4 Higher- Speed Rail		
Arrowleaf milkvine	*Matelea sagittfolia*	-- / -- / SGCN
Ashy dogweed	*Thymophylla tephroleuca*	LE / E / --
Big red sage	*Salvia pentstemonoides*	-- / -- / SGCN
Bracted twistflower	*Streptanthus bracteatus*	C / -- / --
Bristle nailwort	*Paronychia setacea*	-- / -- / SGCN
Buckley tridens	*Tridens buckleyanus*	-- / -- / SGCN
Buckley's spiderwort	*Tradescantia buckleyi*	-- / -- / SGCN
Burridge greenthread	*Thelesperma burridgeanum*	-- / -- / SGCN
Correll's false dragon-head	*Physostegia correllii*	-- / -- / SGCN
Darkstem noseburn	*Tragia nigricans*	-- / -- / SGCN
Dimmit sunflower	*Helianthus praecox ssp hirtus*	-- / -- / SGCN
Elmendorf's onion	*Allium elmendorfii*	-- / -- / SGCN
Fitch's hedgehog cactus	*Echinocereus reichenbachii var. fitchii*	-- / -- / SGCN

Common Name	Scientific Name	Status (Federal/State/ TPWD Ranking)[a]
Glass Mountains coral-root	*Hexalectris nitida*	-- / -- / SGCN
Gravelbar brickellbush	*Brickeliia dentate*	-- / -- / SGCN
Hairy sycamore-leaf snowbell	*Styrax platanifolius var. stellatus*	-- / -- / SGCN
Heller's marbleseed	*Onosmodium helleri*	-- / -- / SGCN
Hill Country wild-mercury	*Argythamnia aphoroides*	-- / -- / SGCN
Johnston's frankenia	*Frankenia johnstonii*	LE / E / --
Jones' selenia	*Selenia jonesii*	-- / -- / SGCN
Kleberg saltbush	*Atriplex klebergorum*	-- / -- / SGCN
Large selenia	*Selenia grandis*	-- / -- / SGCN
Low Spurge	*Euphorbia peplidion*	-- / -- / SGCN
McCart's whitlow-wort	*Paronychia maccartii*	-- / -- / SGCN
Mexican mud-plantain	*Heteranthera Mexicana*	-- / -- / SGCN
Narrowleaf brickellbush	*Brickellia eupatorioides var. gracillima*	-- / -- / SGCN
Neat-leaf bundleflower	*Desmanthus reticulatus*	-- / -- / SGCN
Osage Plains false foxglove	*Agalinis densiflora*	-- / -- / SGCN
Parks' jointweed	*Polygonella parksii*	-- / -- / SGCN
Plateau loosestrife	*Lythrum ovalifolium*	-- / -- / SGCN
Plateau milkvine	*Maatelea edwardsensis*	-- / -- / SGCN
Sand sheet leaf-flower	*Phyllanthus abnormis var. riograndensis*	-- / -- / SGCN
Sandhill woolywhite	*Hymenopappus carrizoanus*	-- / -- / SGCN
Scarlet leather-flower	*Clematis texensis*	-- / -- / SGCN
Shinner's sunflower	*Helianthus occidentalis ssp plantagineus*	-- / -- / SGCN
Shortcrown milkvine	*Matelea brevicoronata*	-- / -- / SGCN
Siler's huaco	*Manfreda sileri*	-- / -- / SGCN
Silvery wild-mercury	*Argythamnia argyraea*	-- / -- / SGCN
South Texas gilia	*Gilia ludens*	-- / -- / SGCN
Spreading leastdaisy	*Chaetopappa effuse*	-- / -- / SGCN
Sycamore-leaf snowbell	*Styrax platanifolius ssp. Platanifolius*	-- / -- / SGCN
Texas almond	*Prunus minutiflora*	-- / -- / SGCN

Common Name	Scientific Name	Status (Federal/State/ TPWD Ranking)[a]
Texas amorpha	*Amorpha roemeriana*	-- / -- / SGCN
Texas barberry	*Berberis swaseyi*	-- / -- / SGCN
Texas fescue	*Fetsuca versuta*	-- / -- / SGCN
Texas peachbush	*Prunus texana*	-- / -- / SGCN
Texas seymeria	*Seymeria texana*	-- / -- / SGCN
Texas shrimp-plant	*Yeatesia platystegia*	-- / -- / SGCN
Texas stonecrop	*Lenophyllum texanum*	-- / -- / SGCN
Tree dodder	*Cuscuta exalta*	-- / -- / SGCN
Yellow-flowered alicoche	*Echinocereus papilosus*	-- / -- / SGCN
Southern Alternative S6 Higher – and High-Speed		
Amelia's abronia	*Abronia ameliae*	-- / -- / SGCN
Arrowleaf milkvine	*Matelea sagittfolia*	-- / -- / SGCN
Bailey's ballmoss	*Tilandsia baileyi*	-- / -- / SGCN
Big red sage	*Salvia pentstemonoides*	-- / -- / SGCN
Black lace cactus	*Echinocereus reichenbachii var. albertii*	LE / E / --
Bracted twistflower	*Streptanthus bracteatus*	C / -- / --
Bristle nailwort	*Paronychia setacea*	-- / -- / SGCN
Buckley tridens	*Tridens buckleyanus*	-- / -- / SGCN
Buckley's spiderwort	*Tradescantia buckleyi*	-- / -- / SGCN
Burridge greenthread	*Thelesperma burridgeanum*	-- / -- / SGCN
Chihuahua balloon-vine	*Cardiospermum dissectum*	-- / -- / SGCN
Coastal gay-feather	*Liatris bracteata*	-- / -- / SGCN
Correll's false dragon-head	*Physostegia correllii*	-- / -- / SGCN
Cory's croton	*Croton coryi*	-- / -- / SGCN
Drummond's rushpea	*Caesalpinia drummondii*	-- / -- / SGCN
Elmendorf's onion	*Allium elmendorfii*	-- / -- / SGCN
Falfurrias milkvine	*Matelea radiate*	-- / -- / SGCN
Fitch's hedgehog cactus	*Echinocereus reichenbachii var. fitchii*	-- / -- / SGCN
Glass Mountains coral-root	*Hexalectris nitida*	-- / -- / SGCN
Gravelbar brickellbush	*Brickeliia dentate*	-- / -- / SGCN
Green beebalm	*Monarda viridissima*	-- / -- / SGCN

Common Name	Scientific Name	Status (Federal/State/ TPWD Ranking)[a]
Green Island echeandia	*Echeandia texensis*	-- / -- / SGCN
Gregg's wild-buckwheat	*Erigonum greggii*	-- / -- / SGCN
Hairy sycamore-leaf snowbell	*Styrax platanifolius var. stellatus*	-- / -- / SGCN
Hill Country wild-mercury	*Argythamnia aphoroides*	-- / -- / SGCN
Johnston's frankenia	*Frankenia johnstonii*	LE / E / --
Jones' nailwort	*Paronychia jonesii*	-- / -- / SGCN
Kleberg saltbush	*Atriplex klebergorum*	-- / -- / SGCN
Large selenia	*Selenia grandis*	-- / -- / SGCN
Lila de los llanos	*Echeandia chandleri*	-- / -- / SGCN
Low Spurge	*Euphorbia peplidion*	-- / -- / SGCN
McCart's whitlow-wort	*Paronychia maccartii*	-- / -- / SGCN
Marsh-elder dodder	*Cuscuta attenuate*	-- / -- / SGCN
Mexican mud-plantain	*Heteranthera Mexicana*	-- / -- / SGCN
Narrowleaf brickellbush	*Brickellia eupatorioides var. gracillima*	-- / -- / SGCN
Neat-leaf bundleflower	*Desmanthus reticulatus*	-- / -- / SGCN
Osage Plains false foxglove	*Agalinis densiflora*	-- / -- / SGCN
Parks' jointweed	*Polygonella parksii*	-- / -- / SGCN
Plains gumweed	*Grindelia oolepis*	-- / -- / SGCN
Plateau loosestrife	*Lythrum ovalifolium*	-- / -- / SGCN
Plateau milkvine	*Maatelea edwardsensis*	-- / -- / SGCN
Runyon's cory cactus	*Coryphantha macromeris var runyonii*	-- / -- / SGCN
Runyon's water-willow	*Justicia runyonii*	-- / -- / SGCN
Sand Brazos mint	*Brazoria arearia*	-- / -- / SGCN
Sand sheet leaf-flower	*Phyllanthus abnormis var. riograndensis*	-- / -- / SGCN
Sandhill woolywhite	*Hymenopappus carrizoanus*	-- / -- / SGCN
Shinner's rocket	*Thelypodiopsis shinersii*	-- / -- / SGCN
Shortcrown milkvine	*Matelea brevicoronata*	-- / -- / SGCN
Siler's huaco	*Manfreda sileri*	-- / -- / SGCN
Slender rushpea	*Hoffmannseggia tenella*	LE / E / --
Small-leaved yellow velvet-leaf	*Wissadula parvifolia*	-- / -- / SGCN

Common Name	Scientific Name	Status (Federal/State/ TPWD Ranking)[a]
South Texas gilia	*Gilia ludens*	-- / -- / SGCN
South Texas ambrosia	*Ambrosia cheiranthifolia*	LE / E / --
South Texas rushpea	*Caesalpinia phyllanthoides*	-- / -- / SGCN
South Texas spikesedge	*Eleocharis austrotexana*	-- / -- / SGCN
Spreading leastdaisy	*Chaetopappa effuse*	-- / -- / SGCN
St. Joseph's staff	*Manfreda longiflora*	-- / -- / SGCN
Star Cactus	*Astrophytum asterias*	LE / E / --
Stinking rushpea	*Pomaria austrotexana*	-- / -- / SGCN
Sycamore-leaf snowbell	*Styrax platanifolius ssp. Platanifolius*	-- / -- / SGCN
Texas almond	*Prunus minutiflora*	-- / -- / SGCN
Texas amorpha	*Amorpha roemeriana*	-- / -- / SGCN
Texas Ayenia	*Ayenia limitaris*	-- / -- / SGCN
Texas fescue	*Fetsuca versuta*	-- / -- / SGCN
Texas milk vetch	*Astragalus reflexus*	-- / -- / SGCN
Texas peachbush	*Prunus texana*	-- / -- / SGCN
Texas stonecrop	*Lenophyllum texanum*	-- / -- / SGCN
Texas shrimp-plant	*Yeatesia platystegis*	-- / -- / SGCN
Texas seymeria	*Seymeria texana*	-- / -- / SGCN
Texas stonecrop	*Lenophyllum texanum*	-- / -- / SGCN
Texas windmill-grass	*Chloris texensis*	-- / -- / SGCN
Tree dodder	*Cuscuta exalta*	-- / -- / SGCN
Vasey's adelia	*Adelia vaseyi*	-- / -- / SGCN
Velvet spurge	*Euphorbia innocua*	-- / -- / SGCN
Walker's manioc	*Manihot walkerae*	LE / E / --
Welder machaeranthera	*Psilactis heterocarpa*	-- / -- / SGCN
Wright's trichocoronis	*Trichocoronis wright var. wrightii*	-- / -- / SGCN
Yellow-flowered alicoche	*Echinocereus papilosus*	-- / -- / SGCN

Common Name	Scientific Name	Status (Federal/State/ TPWD Ranking)[a]
WILDLIFE		
Northern Section		
Alternative N4A Conventional		
American Peregrine Falcon	*Falco peregrinus anatum*	DL / T / --
Arctic Peregrine Falcon	*Falco peregrinus tundrius*	-- / -- / SGCN
Bald Eagle	*Haliaeetus leucocephalus*	DL / T / --
Black-capped Vireo	*Vireo atricapilla*	LE / E / --
Cerulean Warbler	*Dendroica cerulean*	-- / -- / --
Eskimo Curlew	*Numenius borealis*	LE / E / --
Golden—cheeked Warbler	*Setophaga chrysoparia*	LE / E / --
Henslow's Sparrow	*Ammodramus Henslowii*	-- / -- / --
Interior Least Tern	*Sterna antillarum athalassos*	LE / E / --
Peregrine falcon	*Falco peregrinus*	DL / T / --
Piping Plover	*Charadrius melodus*	LT / T / --
Red Knot	*Calidris canutus rufa*	T / -- / --
Sprague's Pipit	*Anthus spragueii*	-- / -- / --
Western Burrowing Owl	*Athene cunicularia hypugaea*	-- / -- / --
White-faced Ibis	*Plegadis chihi*	-- / T / --
Whooping Crane	*Grus Americana*	LE / E / --
Wood Stork	*Mycteria Americana*	-- / T / --
Gray wolf	*Canis lupus*	LE / E / --
Plains spotted skunk	*Spilogale putorius interrupta*	-- / -- / --
Red Wolf	*Canis rufus*	LE / E / --
Texas heelsplitter	*Potamilus amphichaenus*	-- / T / --
Texas honred lizard	*Phrynosoma cornutum*	-- / T / --
Timber rattlesnake	*Crotalus horridus*	-- / -- / --
Black Lordithon rove beetle	*Lordithon niger*	-- / -- / --
Cave myotis bat	*Myotis velifer*	-- / -- / --
Plains spotted skunk	*Spilogale putorius interrupta*	-- / -- / --
Lousiana pigtoe	*Pleurobema riddellii*	-- / T / --

Common Name	Scientific Name	Status (Federal/State/ TPWD Ranking)[a]
Sandbank pocketbook	*Lampsilis satura*	-- / T / --
Texas heelsplitter	*Potamilus amphichaenus*	-- / T / --
Texas pigtoe	*Fusconaia askewi*	-- / T / --
Alligator snapping turtle	*Macrochelys temminckii*	-- / T / --
Shovelnose sturgeon	*Scaphirhynchus platorynchus*	-- / T / --
Texas garter snake	*Thamnophis sirtalis annectens*	-- / -- / --
Timber rattlesnake	*Crotalus horridus*	-- / T / --
Central Section		
Alternative C4A (Higher- and High- Speed Rail)		
Austin blind salamander	*Eurycea waterlooensis*	E / -- / --
Barton Springs salamander	*Euryca sosorum*	LE / E / --
Cascade Caverns salamander	*Eurycea latitans complex*	-- / T / --
Comal blind salamander	*Eurycea tridentifera*	-- / T / --
Comal Springs salamander	*Eurycea sp 8*	-- / -- /SGCN
Edward's Plateau spring salamanders	*Eurycea sp 7*	-- / -- / SGCN
Georgetown salamander	*Eurycea naufragia*	T / -- / --
Jollyville Plateau salamander	*Eurycea tonkawae*	T / -- / --
Pedernales River springs salamander	*Eurycea sp 6*	-- / -- / SGCN
Texas salamander	*Eurycea ceotenes*	-- / -- /SGCN
Salado Springs salamander	*Eurycea chisholmensis*	T / -- /
Southern Crawfish Frog	*Lithobates areolatus areolatus*	-- / -- / SGCN
Bandit Cave spider	*Cicurina bandida*	-- / -- / SGCN
Bracken Bat Cave meshweaver	*Cicurina venii*	LE / -- / --
Bee Creek Cave harvestman	*Texella reddekku*	LE / -- / --
Bone Cave harvestman	*Texella reyesi*	LE / -- / --
Cokendolpher cave harvestman	*Texella cokendolpheri*	LE / -- / --
Government Canyon Bat Cave	*Cicurina vespera*	LE / -- / --
Madla Cave meshweaver	*Cicurina baronia*	LE / -- / --
Robber Baron Cave meshweaver	*Cicurina baronia*	LA / -- / --

Common Name	Scientific Name	Status (Federal/State/ TPWD Ranking)[a]
Tooth Cave pseudoscorpion	*Tartarocreagris texana*	LE / -- / --
Tooth Cave Spider	*Tayshaneta myopica*	LE / -- / --
Warton's cave meshweaver	*Cicurina wartoni*	-- / -- / --
American Peregrine Falcon	*Falco peregrinus anatum*	DL / T / --
Arctic Peregrine Falcon	*Falco peregrinus tundrius*	DL / -- / --
Bald Eagle	*Haliaeetus leucocephalus*	DL / T / --
Black-capped Vireo	*Vireo atricapilla*	LE / E / --
Golden-cheeked Warbler	*Setophaga chrysoparia*	LE / E / --
Henslow's Sparrow	*Ammodramus henslowii*	-- / -- /SGCN
Interior Least Tern	*Sterna antillarum athalassos*	LE / E / --
Mountain Plover	*Charadrius montanus*	-- / -- /SGCN
Peregrine Falcon	*Falco peregrinus*	DL / T / --
Piping Plover	*Charadrius melodus*	LT / T / --
Red Knot	*Calidriscanutus rufa*	T / -- / --
Sprague's Pipit	*Anthus spragueii*	-- / -- /SGCN
Western Burrowing Owl	*Athenecunicularia hypugaea*	-- / -- /SGCN
White-faced Ibis	*Pegadis chihi*	-- / T / --
Whooping Crane	*Grus Americana*	LE / E / --
Wood Stork	*Mycteria Americana*	-- / T / --
Zone-tailed Hawk	*Buteo albonotatus*	-- / T / --
A cave obligate crustacean	*Monodella texana*	-- / -- /SGCN
An amphipod	*Atygobromus russelli*	-- / -- / SGCN
Balcones Cave amphipod	*Stygobromus balconis*	-- / -- / SGCN
Bifurcated cave amphipod	*Stygobromus bifucatus*	-- / -- / SGCN
Ezell's cave amphipod	*Stygobromus flagellates*	-- / -- / SGCN
Long-legged cave amphipod	*Stygobromus pecki*	LE / E / --
Peck's cave amphipod	*Stygobromus pecki*	LE / E / --
Blue sucker	*Cycleptus elongates*	-- / T / --
Fountain darter	*Etheostoma fonticola*	LE / E / --
Guadalupe bass	*Micropterus treculii*	-- / -- /SGCN

Common Name	Scientific Name	Status (Federal/State/ TPWD Ranking)[a]
Toothless blindcat	*Trogloglanis pattersoni*	-- / T / --
Widemouth blindcat	*Satan eurstomus*	-- / T / --
A ground beetle	*Rhadine exilis*	LE / -- / --
A ground beetle	*Rhadine internalis*	LE / -- / --
A mayfly	*Pseudocentroptiloides morihari*	-- / -- / SGCN
Black Lordithon rove beetle	*Lordithon niger*	-- / -- / SGCN
Comal Springs diving beetle	*Comaldessus stygius*	-- / -- / SGCN
Comal Springs dryopid beetle	*Stygoparnus comalensis*	LE / E / --
Comal Springs riffle beetle	*Heterelmis comalensis*	LE / E / --
Edwards Aquifer diving beetle	*Haideoporus texanus*	-- / -- / SGCN
Helotes mold beetle	*Batrisodes venyivi*	LE / -- / --
Kretschmarr Cave mold beetle	*Texamaurops reddelli*	LE / -- / --
Tooth Cave blind rove beetle	*Cylindropsis sp 1*	-- / -- / SGCN
Tooth Cave ground beetle	*Rhadine Persephone*	LE / -- / --
Manfreda giant-skipper	*Stallingsia maculosus*	-- / -- /SGCN
Sharpnose shiner	*Notropis oxyrhynchus*	LE / E / --
Smalleye shiner	*Notropis buccula*	LE / -- / --
Black bear	*Ursus americanus*	-- / T / --
Cave myotis bat	*Myotis velifer*	-- / -- /SGCN
Gray Wolf	*Canis lupus*	LE / E / --
Jaguarundi	*Herpailurus yaguarondi*	LE / E / --
Plains spotted skunk	*Spilogale putorius interrupta*	-- / -- /SGCN
Red Wolf	*Canis rufus*	LE / E / --
False spike mussel	*Quadrula mitchelli*	-- / T / --
Golden Orb	*Quadrula aurea*	C / T / --
Horseshoe liptooth snail	*Daedalochila hippocrepis*	-- / -- / SGCN
Louisiana pigtoe	*Pleurobema riddellii*	-- / T / --
Texas fatmuchet	*Lampsilis bracteata*	C / T / --
Sandbook pocketbook	*Lamsilis satura*	-- / T / --
Smooth pimpleback	*Quadrula houstonensis*	C / T / --

Common Name	Scientific Name	Status (Federal/State/ TPWD Ranking)[a]
Texas fatmucket	*Lamsilis bracteata*	C / T / --
Texas fawnsfoot	*Truncilla macrodon*	C / T / --
Texas heelsplitter	*Potamilus amphichaenus*	-- / T / --
Texas pigtoe	*Fusconaia askewi*	-- / T / --
Mimic cavesnail	*Phreatodrobia imitate*	-- / -- /SGCN
Texas pimpleback	*Quadrula aurea*	C / T / --
Alligator snapping turtle	*Macrochelys temminckii*	-- / T / --
Brazos water snake	*Nerodia harteri*	-- / T / --
Cagle's map turtle	*Graptemys cageli*	-- / T / --
Spot-tailed earless lizard	*Holbrookia lacerata*	-- / -- / --
Texas garter snake	*Thamnophis sirtalis annectens*	-- / -- / --
Texas horned lizard	*Phrynosoma cornutum*	-- / T / --
Texas indigo snake	*Drymarchon melanurus erebennus*	-- / T / --
Texas tortoise	*Gopherus berlandieri*	-- / T / --
Timber rattlesnake	*Crotalus horridus*	-- / T / --
Alternative C4B Conventional (Higher- and High- Speed Rail)		
Austin blind salamander	*Eurycea waterlooensis*	E / -- / --
Barton Springs salamander	*Euryca sosorum*	LE / E / --
Cascade Caverns salamander	*Eurycea latitans complex*	-- / T / --
Comal blind salamander	*Eurycea tridentifera*	-- / T / --
Comal Springs salamander	*Eurycea sp 8*	-- / -- /SGCN
Edward's Plateau spring salamanders	*Eurycea sp 7*	-- / -- / SGCN
Georgetown salamander	*Eurycea naufragia*	T / -- / --
Jollyville Plateau salamander	*Eurycea tonkawae*	T / -- / --
Pedernales River springs salamander	*Eurycea sp 6*	-- / -- / SGCN
Texas salamander	*Eurycea ceotenes*	-- / -- /SGCN
Salado Springs salamander	*Eurycea chisholmensis*	T / -- /
Southern Crawfish Frog	*Lithobates areolatus areolatus*	-- / -- / SGCN
Bandit Cave spider	*Cicurina bandida*	-- / -- / SGCN

Common Name	Scientific Name	Status (Federal/State/ TPWD Ranking)[a]
Bracken Bat Cave meshweaver	*Cicurina venii*	LE / -- / --
Bee Creek Cave harvestman	*Texella reddekku*	LE / -- / --
Bone Cave harvestman	*Texella reyesi*	LE / -- / --
Cokendolpher cave harvestman	*Texella cokendolpheri*	LE / -- / --
Government Canyon Bat Cave	*Cicurina vespera*	LE / -- / --
Madla Cave meshweaver	*Cicurina baronia*	LE / -- / --
Robber Baron Cave meshweaver	*Cicurina baronia*	LA / -- / --
Tooth Cave pseudoscorpion	*Tartarocreagris texana*	LE / -- / --
Tooth Cave Spider	*Tayshaneta myopica*	LE / -- / --
Warton's cave meshweaver	*Cicurina wartoni*	-- / -- / --
American Peregrine Falcon	*Falco peregrinus anatum*	DL / T / --
Arctic Peregrine Falcon	*Falco peregrinus tundrius*	DL / -- / --
Bald Eagle	*Haliaeetus leucocephalus*	DL / T / --
Black-capped Vireo	*Vireo atricapilla*	LE / E / --
Golden-cheeked Warbler	*Setophaga chrysoparia*	LE / E / --
Henslow's Sparrow	*Ammodramus henslowii*	-- / -- /SGCN
Interior Least Tern	*Sterna antillarum athalassos*	LE / E / --
Mountain Plover	*Charadrius montanus*	-- / -- /SGCN
Peregrine Falcon	*Falco peregrinus*	DL / T / --
Piping Plover	*Charadrius melodus*	LT / T / --
Red Knot	*Calidriscanutus rufa*	T / -- / --
Sprague's Pipit	*Anthus spragueii*	-- / -- /SGCN
Western Burrowing Owl	*Athenecunicularia hypugaea*	-- / -- /SGCN
White-faced Ibis	*Pegadis chihi*	-- / T / --
Whooping Crane	*Grus Americana*	LE / E / --
Wood Stork	*Mycteria Americana*	-- / T / --
Zone-tailed Hawk	*Buteo albonotatus*	-- / T / --
Shovelnose sturgeon	*Scaphirhynchus platorynchus*	-- / -- / SGCN
A cave obligate crustacean	*Monodella texana*	-- / -- /SGCN
An amphipod	*Atygobromus russelli*	-- / -- / SGCN

Common Name	Scientific Name	Status (Federal/State/ TPWD Ranking)[a]
Balcones Cave amphipod	*Stygobromus balconis*	-- / -- / SGCN
Bifurcated cave amphipod	*Stygobromus bifucatus*	-- / -- / SGCN
Ezell's cave amphipod	*Stygobromus flagellates*	-- / -- / SGCN
Long-legged cave amphipod	*Stygobromus pecki*	LE / E / --
Peck's cave amphipod	*Stygobromus pecki*	LE / E / --
Blue sucker	*Cycleptus elongates*	-- / T / --
Fountain darter	*Etheostoma fonticola*	LE / E / --
Guadalupe bass	*Micropterus treculii*	-- / -- /SGCN
Toothless blindcat	*Trogloglanis pattersoni*	-- / T / --
Widemouth blindcat	*Satan eurstomus*	-- / T / --
A ground beetle	*Rhadine exilis*	LE / -- / --
A ground beetle	*Rhadine internalis*	LE / -- / --
A mayfly	*Pseudocentroptiloides morihari*	-- / -- / SGCN
Black Lordithon rove beetle	*Lordithon niger*	-- / -- / SGCN
Comal Springs diving beetle	*Comaldessus stygius*	-- / -- / SGCN
Comal Springs dryopid beetle	*Stygoparnus comalensis*	LE / E / --
Comal Springs riffle beetle	*Heterelmis comalensis*	LE / E / --
Edwards Aquifer diving beetle	*Haideoporus texanus*	-- / -- / SGCN
Helotes mold beetle	*Batrisodes venyivi*	LE / -- / --
Kretschmarr Cave mold beetle	*Texamaurops reddelli*	LE / -- / --
Tooth Cave blind rove beetle	*Cylindropsis sp 1*	-- / -- / SGCN
Tooth Cave ground beetle	*Rhadine Persephone*	LE / -- / --
Manfreda giant-skipper	*Stallingsia maculosus*	-- / -- /SGCN
Sharpnose shiner	*Notropis oxyrhynchus*	LE / E / --
Smalleye shiner	*Notropis buccula*	LE / -- / --
Black bear	*Ursus americanus*	-- / T / --
Cave myotis bat	*Myotis velifer*	-- / -- /SGCN
Gray Wolf	*Canis lupus*	LE / E / --
Jaguarundi	*Herpailurus yaguarondi*	LE / E / --
Plains spotted skunk	*Spilogale putorius interrupta*	-- / -- /SGCN

Common Name	Scientific Name	Status (Federal/State/ TPWD Ranking)[a]
Red Wolf	*Canis rufus*	LE / E / --
False spike mussel	*Quadrula mitchelli*	-- / T / --
Golden Orb	*Quadrula aurea*	C / T / --
Horseshoe liptooth snail	*Daedalochila hippocrepis*	-- / -- / SGCN
Louisiana pigtoe	*Pleurobema riddellii*	-- / T / --
Texas fatmuchet	*Lampsilis bracteata*	C / T / --
Sandbook pocketbook	*Lamsilis satura*	-- / T / --
Smooth pimpleback	*Quadrula houstonensis*	C / T / --
Texas fatmucket	*Lamsilis bracteata*	C / T / --
Texas fawnsfoot	*Truncilla macrodon*	C / T / --
Texas heelsplitter	*Potamilus amphichaenus*	-- / T / --
Texas pigtoe	*Fusconaia askewi*	-- / T / --
Mimic cavesnail	*Phreatodrobia imitate*	-- / -- /SGCN
Texas pimpleback	*Quadrula aurea*	C / T / --
Alligator snapping turtle	*Macrochelys temminckii*	-- / T / --
Brazos water snake	*Nerodia harteri*	-- / T / --
Cagle's map turtle	*Graptemys cageli*	-- / T / --
Spot-tailed earless lizard	*Holbrookia lacerata*	-- / -- / --
Texas garter snake	*Thamnophis sirtalis annectens*	-- / -- / --
Texas horned lizard	*Phrynosoma cornutum*	-- / T / --
Texas indigo snake	*Drymarchon melanurus erebennus*	-- / T / --
Texas tortoise	*Gopherus berlandieri*	-- / T / --
Timber rattlesnake	*Crotalus horridus*	-- / T / --
Alternative C4C Higher- and High Speed Rail		
Austin blind salamander	*Eurycea waterlooensis*	E / -- / --
Barton Springs salamander	*Euryca sosorum*	LE / E / --
Cascade Caverns salamander	*Eurycea latitans complex*	-- / T / --
Comal blind salamander	*Eurycea tridentifera*	-- / T / --
Comal Springs salamander	*Eurycea sp 8*	-- / -- /SGCN

Common Name	Scientific Name	Status (Federal/State/ TPWD Ranking)[a]
Edward's Plateau spring salamanders	*Eurycea sp 7*	-- / -- / SGCN
Georgetown salamander	*Eurycea naufragia*	T / -- / --
Jollyville Plateau salamander	*Eurycea tonkawae*	T / -- / --
Pedernales River springs salamander	*Eurycea sp 6*	-- / -- / SGCN
Texas salamander	*Eurycea ceotenes*	-- / -- /SGCN
Salado Springs salamander	*Eurycea chisholmensis*	T / -- /
Southern Crawfish Frog	*Lithobates areolatus areolatus*	-- / -- / SGCN
Bandit Cave spider	*Cicurina bandida*	-- / -- / SGCN
Bracken Bat Cave meshweaver	*Cicurina venii*	LE / -- / --
Bee Creek Cave harvestman	*Texella reddekku*	LE / -- / --
Bone Cave harvestman	*Texella reyesi*	LE / -- / --
Cokendolpher cave harvestman	*Texella cokendolpheri*	LE / -- / --
Government Canyon Bat Cave	*Cicurina vespera*	LE / -- / --
Madla Cave meshweaver	*Cicurina baronia*	LE / -- / --
Robber Baron Cave meshweaver	*Cicurina baronia*	LA / -- / --
Tooth Cave pseudoscorpion	*Tartarocreagris texana*	LE / -- / --
Tooth Cave Spider	*Tayshaneta myopica*	LE / -- / --
Warton's cave meshweaver	*Cicurina wartoni*	-- / -- / --
American Peregrine Falcon	*Falco peregrinus anatum*	DL / T / --
Arctic Peregrine Falcon	*Falco peregrinus tundrius*	DL / -- / --
Bald Eagle	*Haliaeetus leucocephalus*	DL / T / --
Black-capped Vireo	*Vireo atricapilla*	LE / E / --
Golden-cheeked Warbler	*Setophaga chrysoparia*	LE / E / --
Henslow's Sparrow	*Ammodramus henslowii*	-- / -- /SGCN
Interior Least Tern	*Sterna antillarum athalassos*	LE / E / --
Mountain Plover	*Charadrius montanus*	-- / -- /SGCN
Peregrine Falcon	*Falco peregrinus*	DL / T / --
Piping Plover	*Charadrius melodus*	LT / T / --
Red Knot	*Calidriscanutus rufa*	T / -- / --

Common Name	Scientific Name	Status (Federal/State/ TPWD Ranking)[a]
Sprague's Pipit	*Anthus spragueii*	-- / -- /SGCN
Western Burrowing Owl	*Athenecunicularia hypugaea*	-- / -- /SGCN
White-faced Ibis	*Pegadis chihi*	-- / T / --
Whooping Crane	*Grus Americana*	LE / E / --
Wood Stork	*Mycteria Americana*	-- / T / --
Zone-tailed Hawk	*Buteo albonotatus*	-- / T / --
Shovelnose sturgeon	*Scaphirhynchus platorynchus*	-- / -- / SGCN
A cave obligate crustacean	*Monodella texana*	-- / -- /SGCN
An amphipod	*Atygobromus russelli*	-- / -- / SGCN
Balcones Cave amphipod	*Stygobromus balconis*	-- / -- / SGCN
Bifurcated cave amphipod	*Stygobromus bifucatus*	-- / -- / SGCN
Ezell's cave amphipod	*Stygobromus flagellates*	-- / -- / SGCN
Long-legged cave amphipod	*Stygobromus pecki*	LE / E / --
Peck's cave amphipod	*Stygobromus pecki*	LE / E / --
Blue sucker	*Cycleptus elongates*	-- / T / --
Fountain darter	*Etheostoma fonticola*	LE / E / --
Guadalupe bass	*Micropterus treculii*	-- / -- /SGCN
Toothless blindcat	*Trogloglanis pattersoni*	-- / T / --
Widemouth blindcat	*Satan eurstomus*	-- / T / --
A ground beetle	*Rhadine exilis*	LE / -- / --
A ground beetle	*Rhadine internalis*	LE / -- / --
A mayfly	*Pseudocentroptiloides morihari*	-- / -- / SGCN
Comal Springs diving beetle	*Comaldessus stygius*	-- / -- / SGCN
Comal Springs dryopid beetle	*Stygoparnus comalensis*	LE / E / --
Comal Springs riffle beetle	*Heterelmis comalensis*	LE / E / --
Edwards Aquifer diving beetle	*Haideoporus texanus*	-- / -- / SGCN
Helotes mold beetle	*Batrisodes venyivi*	LE / -- / --
Kretschmarr Cave mold beetle	*Texamaurops reddelli*	LE / -- / --
Tooth Cave blind rove beetle	*Cylindropsis sp 1*	-- / -- / SGCN
Tooth Cave ground beetle	*Rhadine Persephone*	LE / -- / --

Common Name	Scientific Name	Status (Federal/State/ TPWD Ranking)[a]
Manfreda giant-skipper	*Stallingsia maculosus*	-- / -- /SGCN
Sharpnose shiner	*Notropis oxyrhynchus*	LE / E / --
Smalleye shiner	*Notropis buccula*	LE / -- / --
Black bear	*Ursus americanus*	-- / T / --
Cave myotis bat	*Myotis velifer*	-- / -- /SGCN
Gray Wolf	*Canis lupus*	LE / E / --
Jaguarundi	*Herpailurus yaguarondi*	LE / E / --
Plains spotted skunk	*Spilogale putorius interrupta*	-- / -- /SGCN
Red Wolf	*Canis rufus*	LE / E / --
False spike mussel	*Quadrula mitchelli*	-- / T / --
Golden Orb	*Quadrula aurea*	C / T / --
Horseshoe liptooth snail	*Daedalochila hippocrepis*	-- / -- / SGCN
Louisiana pigtoe	*Pleurobema riddellii*	-- / T / --
Texas fatmuchet	*Lampsilis bracteata*	C / T / --
Sandbook pocketbook	*Lamsilis satura*	-- / T / --
Smooth pimpleback	*Quadrula houstonensis*	C / T / --
Texas fatmucket	*Lamsilis bracteata*	C / T / --
Texas fawnsfoot	*Truncilla macrodon*	C / T / --
Texas heelsplitter	*Potamilus amphichaenus*	-- / T / --
Texas pigtoe	*Fusconaia askewi*	-- / T / --
Mimic cavesnail	*Phreatodrobia imitate*	-- / -- /SGCN
Texas pimpleback	*Quadrula aurea*	C / T / --
Alligator snapping turtle	*Macrochelys temminckii*	-- / T / --
Brazos water snake	*Nerodia harteri*	-- / T / --
Cagle's map turtle	*Graptemys cageli*	-- / T / --
Spot-tailed earless lizard	*Holbrookia lacerata*	-- / -- / --
Texas garter snake	*Thamnophis sirtalis annectens*	-- / -- / --
Texas horned lizard	*Phrynosoma cornutum*	-- / T / --
Texas indigo snake	*Drymarchon melanurus erebennus*	-- / T / --
Texas tortoise	*Gopherus berlandieri*	-- / T / --

Common Name	Scientific Name	Status (Federal/State/ TPWD Ranking)[a]
Timber rattlesnake	*Crotalus horridus*	-- / T / --
Auriculate false foxglove	*Aganlinis auriculata*	-- / -- / SGCN
Glass Mountains coral-root	*Hexalectris nitida*	-- / -- / SGCN
Southern Section		
Alternative S4 Higher- and High-Speed Rail		
Cascade Caverns salamander	*Eurycea latitans complex*	-- / T / --
Comal blind salamander	*Eurycea tridentifera*	-- / T / --
Texas salamander	*Eurycea neotenes*	-- / -- / SGCN
Bracken Bat Cave meshweaver	*Cicurina venii*	LE / -- / --
Cokendolpher cave harvestman	*Texella cokendolpheri*	LE / -- / --
Government Canyon Bat Cave meshweaver	*Cicurina vespera*	LE / -- / --
Government Canyon Bat Cave spider	*Tayshaneta microps*	LE / -- / --
Madla Cave meshweaver	*Circurina madla*	LE / -- / --
Robber Baron Cave meshweaver	*Cicurina baronis*	LE / -- / --
American Peregrine Falcon	*Falco peregrinus anatum*	DL / T / --
Arctic Peregrine Falcon	*Falco peregrinus tundris*	DL / -- / --
Audubon's Oriole	*Icterus graduaacauda audubonii*	-- / -- / SGCN
Baird's Sparrow	*Ammodramus bairdii*	-- / -- / SGCN
Black-capped Vireo	*Vireo atricapilla*	LE / E / --
Common Black-Hawk	*Buteogallus anthracinus*	--
Golden-cheeked Warbler	*Setphaga chrysoparia*	LE / E / --
Interior Least Tern	*Sterna antillarum athalassos*	LE / E / --
Mexican Hooded oriole	*Icterus cucullatus cucullatus*	-- / -- / SGCN
Mountain Plover	*Charadrius montanus*	-- / -- / SGCN
Peregrine falcon	*Falco peregrinus*	DL / T / --
Red Knot	*Calidris canutus rufa*	T / -- / --
Sennett's Hooded Oriole	*Icterus cucullatus senetti*	-- / -- / SGCN
Sprague's Pipit	*Anthus spragueii*	-- / -- / --
Western Burrowing Owl	*Athene cunicularia hypugaea*	-- / -- / --

Common Name	Scientific Name	Status (Federal/State/ TPWD Ranking)[a]
White-faced Ibis	*Plegadis chihi*	-- / T / --
Whooping Crane	*Grus Americana*	LE / E / --
Wood Stork	*Mycteria Americana*	-- / T / --
Zone-tailed Hawk	*Buteo albonotatus*	-- / T / --
Blue sucker	*Cycleptus elongates*	-- / T / --
Headwater catfish	*Ictalurus lupus*	-- / -- / SGCN
Rio Grande darter	*Etheostoma graham*	-- / T / --
Rio Grande shiner	*Notropis jemezanus*	-- / -- / SGCN
Rio Grande silvery minnow	*Hybognathus amarus*	LE / E / --
A cave obligate crustacean	*Monodella trexana*	-- / -- / SGCN
Ezell's cave amphipod	*Stygobromus flagellates*	-- / -- / SGCN
Edwards Plateau shiner	*Cyprinella lepida*	-- / -- / SGCN
Guadalupe bass	*Micropterus treculii*	-- / -- / SGCN
Headwater catfish	*Ictalurus lupus*	-- / -- / SGCN
Nueces roundnose minnow	*Dionda serena*	-- / -- / SGCN
Toothless blindcat	*Trogloglanis pattersoni*	-- / T / --
Widemouth blindcat	*Satan eurystomus*	-- / T / --
A ground beetle	*Rhadine exilis*	LE / -- / --
A ground beetle	*Rhadine internalis*	LE / -- / --
Helotes mold beetle	*Batrisodes venyivi*	LE / -- / --
Neojuvenile tiger beetle	*Cicindela obsolete neojuvenilis*	-- / -- / SGCN
Manfreda giant-skipper	*Stallingsia maculosus*	-- / -- / SGCN
Black bear	*Urus americanus*	--- / T / --
Carrizo Springs pocket gopher	*Geomys personatus streckeri*	-- / -- / SGCN
Cave myotis bat	*Myotis velifer*	-- / -- /SGCN
Davis pocket gopher	*Geomys personatus davisi*	-- / -- / SGCN
Frio pocket gopher	*Geomys texensis bakeri*	-- / -- / SGCN
Gray Wolf	*Canis lupus*	LE / E / --
Jaguarundi	*Herpailurus yaguarondi*	LE / E / --
Ocelot	*Leopardus pardis*	LE / E / --

Common Name	Scientific Name	Status (Federal/State/ TPWD Ranking)[a]
White-nosed coati	*Nasua narica*	-- / T / --
Plains spotted skunk	*Spilogale putorius interrupta*	-- / -- /SGCN
Red Wolf	*Canis rufus*	LE / E / --
White-nosed coati	*Nasua narica*	-- / T / --
Golden orb	*Quadrula aurea*	C / T / --
Mexican fawnsfoot mussel	*Truncilla cognate*	-- / T / --
Mimic cavesnail	*Phreatodrobia imitata*	-- / -- /SGCN
Salina mucket	*Potamilus metnecktayi*	-- / T / --
Texas hornshell	*Popenaias popeii*	C / T / --
Texas pimpleback	*Quadrula petrina*	C / T / --
Reticulate collared lizard	*Crotaphytus reticulatus*	-- / T / --
Spot-tailed earless lizard	*Holbrookia lacerate*	-- / -- / SGCN
Texas garter snake	*Thamnophis sirtalis annectens*	-- / -- / SGCN
Texas horned lizard	*Phrynosoma cornutum*	-- / T / --
Texas indigo snake	*Drymarchon melanurus erebennus*	-- / T / --
Texas tortoise	*Gopherus berlandierei*	-- / T / --
Timber rattlesnake	*Crotalus horricus*	-- / T / --
Alternative S6 Higher- and High-Speed Rail		
Black spotted newt	*Notophthalmus meridionalis*	-- / T / --
Cascade Caverns salamander	*Eurycea latitans complex*	-- / T / --
Comal blind salamander	*Eurycea tridentifera*	-- / T / --
Mexican treefrog	*Smilisca baudnii*	-- / T / --
Sheep frog	*Hypopachus variolosus*	-- / T / --
South Texas siren (large form)	*Siren sp 1*	-- / T / --
Texas salamander	*Eurycea neotenes*	-- / -- / SGCN
White-lipped frog	*Leptodactylus fragilis*	-- / T / --
Bracken Bat Cave meshweaver	*Cicurina venii*	LE / -- / --
Cokendolpher cave harvestman	*Texella cokendolpheri*	LE / -- / --
Government Canyon Bat Cave meshweaver	*Cicurina vespera*	LE / -- / --

Common Name	Scientific Name	Status (Federal/State/ TPWD Ranking)[a]
Government Canyon Bat Cave spider	*Tayshaneta microps*	LE / -- / --
Madla Cave meshweaver	*Circurina madla*	LE / -- / --
Robber Baron Cave meshweaver	*Cicurina baronis*	LE / -- / --
American Peregrine Falcon	*Falco peregrinus anatum*	DL / T / --
Arctic Peregrine Falcon	*Falco peregrinus tundrius*	-- / -- / SGCN
Audubon's Oriole	*Icterus graduacauda audubonii*	-- / -- / SGCN
Baird's Sparrow	*Ammodramus bairdii*	-- / -- / SGCN
Black-capped Vireo	*Vireo atricapilla*	LE / E / --
Brown Pelican	*Pelecanus occidentalis*	DL / -- / --
Brownsville Common Yellowthroat	*Geothlypis trichas insperata*	-- / -- / SGCN
Cactus Ferruginous Pygmy-Owl	Glaucidium brasilianum cactorum	-- / T / --
Common Black-Hawk	*Buteogallus anthracinus*	-- / T / --
Eskimo Curlew	*Numenus borealis*	LE / E / --
Golden-cheeked Warbler	*Setophaga chrysoparia*	LE / E / --
Gray Hawk	*Asturina nitida*	-- / T / --
Hook-billed Kite	*Chondohierax uncinatus*	-- / -- / SGCN
Interior Least Tern	*Sterna antillarum athalassos*	LE / E / --
Mexican Hooded Oriole	*Icterus cucullatis cullcullatus*	-- / -- / SGCN
Mountain Plover	*Charadrius montanus*	-- / -- / SGCN
Northern Aplomado Falcon	*Falco femoralis septentrionalis*	LE / E / --
Northern Beardless- Tyrannulet	*Camptostoma imberbe*	-- / T / --
Peregrine falcon	*Falco peregrinus*	DL / T / --
Piping Plover	*Charadrius melodus*	LT / T / --
Reddish Egret	*Egretta rufescens*	-- / T / --
Red Knot	*Calidris cantus rufa*	T / -- / --
Rose-throated Becard	*Pachuramphus aglaiae*	-- / T / --
Senett's Hooded Oriole	*Icterus cucullatus sennetti*	-- / -- / SGCN
Snowy Plover	*Charadrius aleandrius*	-- / -- / SGCN
Sooty Tern	*Sterna fuscata*	-- / T / --

Common Name	Scientific Name	Status (Federal/State/ TPWD Ranking)[a]
Sprague's Pipit	*Anthus spragueii*	-- / -- / --
Texas Botteri's Sparrow	*Aimphila botterii texana*	-- / T / --
Tropical Parula	*Parula pitiayumi*	-- / T / --
Western Burrowing Owl	*Athene cunicularia hypugaea*	-- / -- / --
Western Snowy Plover	*Charadrius alecandrinus nivosus*	-- / -- / SGCN
White-tailed Hawk	*Buteo albucaudatus*	-- / T / --
White-faced Ibis	*Plegadis chihi*	-- / T / --
Whooping Crane	*Grus Americana*	LE / E / --
Wood Stork	*Mycteria Americana*	-- / T / --
Zone-tailed Hawk	*Buteo albonotatus*	-- / T / --
A cave obligate crustacean	*Monodella texana*	-- / -- /SGCN
American eel	*Anguilla rostrate*	-- / -- / SGCN
Blue Sucker	*Cycleptus elongates*	-- / T / --
Guadalupe bass	*Micropterus treculii*	-- / -- / SGCN
Headwater catfish	*Ictalurus lupus*	-- / -- / SGCN
Mexican Goby	*Ctenogobius clatonii*	-- / T / --
Nueces crayfish	*Procambarus nueces*	-- / -- / SGCN
Opossum pipefish	*Microphis brachyurus*	-- / T / --
Rio Grande darter	*Etheostoma graham*	-- / T / --
Rio Grande shiner	*Notropis jemezanus*	-- / -- / SGCN
Rio Grande silvery minnow	*Hybognathus amarus*	LE / E / --
River goby	*Awaous banana*	-- / T / --
Smalltooth sawfish	*Pristis pectinate*	LE / E / --
Texas pipefish	*Syngnathus addnis*	-- / -- / SGCN
Toothless blindcat	*Trogloglanis pattersoni*	-- / T / --
Widemouth blindcat	*Satan eurystomus*	-- / T / --
A ground beetle	*Rhadine exilis*	LE / -- / --
A ground beetle	*Rhadine infernalis*	LE / -- / --
A mayfly	*Campsurus decoloratus*	-- / -- / SGCN
A Royal moth	*Sphingicampa blanchardi*	-- / -- / SGCN

Common Name	Scientific Name	Status (Federal/State/ TPWD Ranking)[a]
A Tiger beetle	*Tetracha affinis angustata*	-- / -- / SGCN
Arroyo darner	*Aeshna dugesi*	-- / -- / SGCN
Helotes mold beetle	*Batrisodes venyivi*	LE / -- / --
Los Olmos tiger beetle	*Cicindela necadica olmosa*	-- / -- / SGCN
Manfreda giant-skipper	*Stallingsia maculosus*	-- / -- / SGCN
Neojuvenile tiger beetle	*Cicindela obsolete neojuvenilis*	-- / -- / SGCN
Smyth's tiger beetle	*Cicindela chlorocephala smythi*	-- / -- / SGCN
Subtropical blue-black tiger beetle	*Cicindela nigrocoerulea*	-- / -- / SGCN
Superb grasshopper	*Eximacris superbum*	-- / -- / SGCN
Tamaulipan agapema	*Agapema galbina*	-- / -- / SGCN
Black bear	*Ursus americanus*	-- / T / --
Cave myotis bat	*Myotis velifer*	-- / -- /SGCN
Coues' rice rat	*Oryzomys couesi*	-- / T / --
Davis pocket gopher	*Geomys personatus davisi*	-- / -- / SGCN
Gray Wolf	*Canis lupus*	LE / E / --
Jaguar	*Panthera onca*	LE / E / --
Jaguarundi	*Herpailurus yaguarondi*	LE / E / --
Maritime pocket gopher	*Geomys personatus maritmus*	-- / -- / SGCN
Mexican long-tounged bat	*Chperonycteris Mexicana*	-- / -- / SGCN
Ocelot	*Leopardus pardalis*	LE / E / --
Plains spotted skunk	*Spilogale putorius interrupta*	-- / -- /SGCN
Red Wolf	*Canis rufus*	LE / E / --
Southern yellow bat	*Lasiurus ega*	-- / T / --
West indian manatee	*Trichechus manatus*	LE / E / --
White-nosed coati	*Nasua narica*	-- / T / --
Golden Orb	*Quadrula aurea*	C / T / --
Mexican fawnsfoot mussel	*Truncilla cognate*	-- / T / --
Mimic cavesnail	*Phreatodrobia imitate*	-- / -- / SGCN
Salina mucket	*Potamilius metneckayi*	-- / T / --

Common Name	Scientific Name	Status (Federal/State/ TPWD Ranking)[a]
Texas hornshell	*Popenaias popeii*	C / T / --
Texas pimpleback	*Quadrula petrina*	C / T / --
Atlantic hawksbill sea turtle	*Eretmochelys imbricate*	LE / E / --
Black-striped snake	*Coniophanes imperialis*	-- / T / --
Green sea Turtle	*Chelonia mydas*	LT / T / --
Keeled earless lizard	*Holbrookia propingua*	-- / -- / SGCN
Kemp's Ridley Sea Turtle	*Lepidochelys kempuu*	LE / E / --
Leatherback sea turtle	*Dermochelys Coriacea*	LE / E / --
Loggerhead sea turtle	*Caretta caretta*	LT / T / --
Northern cat-eyed snake	*Leptodeira septentrionalis septentrionalis*	-- / T / --
Mexican blackhead snake	*Tantilla atriceps*	-- / -- / SGCN
Reticulate collared lizard	*Crotaphytus reticulatus*	-- / T / --
Speckled racer	*Drymobius margaritiferus*	-- / T / --
Spot-tailed earless lizard	*Holbrookia lacerata*	-- / -- / SGCN
Texas diamondback terrapin	*Malaclemys terrapin littoalis*	-- / -- / SGCN
Texas garter snake	*Thamnophis sirtalis annectens*	-- / -- / SGCN
Texas horned lizard	*Phrynosoma cornutum*	-- / T / --
Texas indigo snake	*Drymarchon melanurus erebennus*	-- / T / --
Texas scarlet snake	*Cemophora coccinea lineri*	-- / T / --
Texas tortoise	*Gopherus berlandierei*	-- / T / --
Timber rattlesnake	*Crotalus horricus*	-- / T / --

[a] Status acronyms:

Federal and State Listing Designations

E – State endangered
DL – Delisted
ET – State threatened
LE – Federally endangered
LT – Federally threatened
PDL – Proposed delisted
PE – Federally proposed endangered
PT – Federally proposed threatened
C – Category 1 candidate for listing as threatened or endangered by the USFWS

TPWD Rankings

SGCN – Species of Greatest Conservation Need (SGCN)

Sources: Texas Parks and Wildlife Department; Rare, Threatened and Endangered Species of Texas by County – Interactive Mapping Tool/Data Warehouse; TPWD (2014a); TPWD (2014b)

Revised DEIS Section: References

11.0 References

3.1 Air Quality

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3.7 Threatened and Endangered Species

TPWD Rare, Threatened and Endangered Species of Texas by County, Interactive Mapping Tool/Data Warehouse. http://tpwd.texas.gov/gis/rtest/

3.17 Recreational Areas and Opportunities

Land and Water Resources Conservation and Recreation Plan (L WRCRP) 2012 Statewide Inventory. http://tpwd.texas.gov/gis/apps/lwrcrp//