

**SUPPLEMENTAL ENVIRONMENTAL ASSESSMENT  
FOR  
SH 183 BRIDGE OVER THE ELM FORK OF THE TRINITY  
RIVER**

**CIVIL WORKS  
MINOR SECTION 408 NEPA COMPLIANCE**

**U.S. ARMY CORPS OF ENGINEERS  
FORT WORTH DISTRICT**



**APRIL 2014**

## DRAFT FINDING OF NO SIGNIFICANT IMPACT

### SUPPLEMENTAL ENVIRONMENTAL ASSESSMENT STATE HIGHWAY 183 BRIDGE OVER THE ELM FORK OF THE TRINITY RIVER DALLAS FLOODWAY, DALLAS COUNTY, TEXAS

**Description of Action.** The United States Army Corps of Engineers (USACE) evaluated a Texas Department of Transportation (TxDOT) 33 U.S.C. Section 408 request for proposed construction of State Highway (SH) 183 Bridge over the Elm Fork of the Trinity River (crossing between the Northwest Levee within the City of Irving and the East Levee within the City of Dallas), Dallas Floodway, Dallas County, Texas. The Section 408 request included National Environmental Policy Act (NEPA) compliance coverage under the Programmatic Environmental Assessment (PEA) for Civil Works Minor Section 408 NEPA Compliance dated April 11, 2011, with a Finding of No Significant Impact (FONSI) signed April 15, 2011. Due to riparian woodland impacts, a Supplemental Environmental Assessment (SEA) was prepared to address impacts not disclosed in the PEA and to satisfy NEPA requirements.

**Anticipated Environmental Effects.** The SEA considers two alternatives, the no-action alternative and the proposed action alternative. The proposed action alternative includes the addition of general purpose lanes, frontage roads, and high occupancy vehicle/managed lanes constructed in phases. Specifically, base project improvements consist of constructing a new parallel bridge structure along the westbound side of the existing bridge. Additional construction components include separate bridge structures for the eastbound main lanes and frontage roads, an elevated bridge structure for the eastbound managed lanes, as well as a new bridge structure for the westbound frontage roads. The proposed action also includes the removal and relocation of associated transmission towers and billboards.

Several mitigation measures are proposed for the effects the project would have on the 100-year and Standard Project Flood (SPF) water surface elevations and valley storage capacity in the Dallas Floodway. These measures consist of an earthen berm, placing rip-rap on and extending the East levee toe, and excavation within the Dallas Floodway. The earthen berm (6-ft wide and 5-ft tall) would be constructed between the upstream edge of the SH 183 Bridge deck and the proposed ROW. The proposed berm would be parallel to the proposed bridge and located within the overbanks of the Dallas Floodway. In addition, the riverside toe of the East Levee would be extended using a 4:1 slope and armored with smooth concrete riprap. The earthen berm and levee extension is necessary to compensate for a small rise in the water elevations for the 100-year flood and SPF downstream of the proposed project. To compensate for the loss of valley storage upstream due to the number of columns being placed within the Dallas Floodway, the area below the bridges within the overbanks would be excavated to a depth of approximately 5.5 feet.

The levees do not allow for permanent excavation within 200-feet of the existing toe of the levee. Therefore, a 200-foot buffer from the toe of the levees towards the Trinity River will be left unexcavated. The proposed action will be completed using a design-build contractor who will complete detailed design for USACE review prior to construction to ensure the action remains compliant with NEPA compliance documentation and all applicable 408 Permit stipulations and requirements. The proposed construction would also be phased within an undetermined timeframe depending on availability of funding. In accordance with Council on Environmental Quality's regulations under C.F.R. Title 40 Part 1502.9, TxDOT may be required to supplement the SEA depending on changes in the design of the proposed action and/or new or unforeseen circumstances or environmental concerns.

No significant adverse direct, indirect or cumulative impacts to the human, cultural, and natural environment associated with implementation of the proposed action are identified for all phases of the proposed action. The placement of temporary or permanent dredge or fill material in waters of the U.S., including wetlands, would be authorized by Regional General Permit 12 (RGP-12), *Modifications and Alterations of Corps of Engineers Projects*. Impacts to the riparian woodland present along the Elm Fork Trinity River would be minimal and would not require woodland mitigation.

**Conclusions.** Based on a review of the information contained in the SEA, it is determined that the implementation of the proposed action is not a major federal action, which would significantly affect the quality of the human environment within the meaning of Section 102(2)(c) of the National Environmental Policy Act of 1969, as amended. Therefore, the preparation of an Environmental Impact Statement is not required.

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Charles H. Klinge  
Colonel, U.S. Army  
Commanding

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Date

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**ATTACHMENTS**

**Attachment A: Exhibits**

- Exhibit 1: Project Location Map
- Exhibit 2: FEMA Floodplain and USGS Quadrangle Map
- Exhibit 3: Typical Sections
- Exhibit 4: Proposed Schematic Plans
- Exhibit 5: Section 404 Impacts
- Exhibit 6: Vegetation Impacts
- Exhibit 7: Hazardous Materials

**Attachment B: Hazardous Materials Database Summary**

**Attachment C: Agency Coordination Letters**

**Attachment D: Public Involvement**

## 1.0 INTRODUCTION

The Texas Department of Transportation (TxDOT) is submitting the proposed project, State Highway (SH) 183 Bridge over the Elm Fork of the Trinity River, as a future Minor Section 408 request for National Environmental Policy Act (NEPA) compliance under the U.S. Corps of Engineers (USACE) Programmatic Environmental Assessment (PEA) entitled Civil Works, Minor Section 408 NEPA Compliance, United States Army Corps of Engineers, Fort Worth District, dated April 11, 2011. The SH 183 Bridge over the Elm Fork of the Trinity River, part of the larger SH 183 Managed Lanes Project, is proposed to be constructed in phases. The SH 183 Managed Lanes Project would be developed and constructed through a toll concession Public-Private Partnership Agreement (P3A). The selected entity would develop, design and construct, and potentially, operate and maintain tolled managed lanes, general purpose lanes and associated facilities along all or portion of the SH 183 Managed Lanes Project.

This document provides information for a project that would require alterations to the Dallas Floodway, which is a USACE Public Works project, and levee easements along the Elm Fork Trinity River. See **Exhibit 1, Project Location Map in Attachment A.**

In accordance with 33 U.S. Code (USC) Section 408, any alteration of a USACE Public Works project will require USACE review and approval to ensure that the alteration does not adversely impact the USACE Public Works. Furthermore, 33 Code of Federal Regulations (CFR) Section 230, Procedures for Implementing NEPA (Engineering Regulation 200-2-2), stipulates that a NEPA document must be prepared to address the impacts to the environment as a result of the Federal action. All requests for alterations to a USACE Public Works project are submitted by the non-Federal sponsor.

This document is a Supplemental Environmental Assessment (SEA) to the PEA prepared by TxDOT for the USACE. The PEA received a Finding of No Significant Impact (FONSI) on April 15, 2011. The PEA is posted on the Fort Worth District website <http://www.swf.usace.army.mil>. The purpose of the PEA was to evaluate known Minor Section 408 requests and future Minor Section 408 requests on properties of USACE Public Works projects located within the USACE Fort Worth District Civil Works boundaries. Due to the high demand and increasing interest of non-federal entities proposing alterations within USACE Public Works boundaries, the USACE found it necessary to prepare the PEA to address NEPA compliance for Minor Section 408 requests on completed USACE Public Works projects to expedite the Federal review and approval process.

The USACE PEA identified five criteria that, if met, would satisfy NEPA documentation on future Minor Section 408 requests:

1. Primary vegetative impact must consist of grasslands with no riparian bottomland forest impacted.

2. No impacts to federal mitigation areas and/or lands specified as ecosystem restoration.
3. Impacts to waters of the U.S. would have to meet the requirements of a Nationwide or Regional General Permit.
4. No significant impacts to threatened or endangered species will be allowed to ensure Endangered Species Act (ESA) compliance.
5. No significant impacts to cultural resources will be allowed.

The PEA states that if the proposed Minor Section 408 request does not meet the five listed categories, then a standalone document or SEA, or environmental impact statement (EIS) would be required. Because the proposed project would potentially impact riparian woodland vegetation, a SEA was prepared.

### 1.1 Purpose and Need

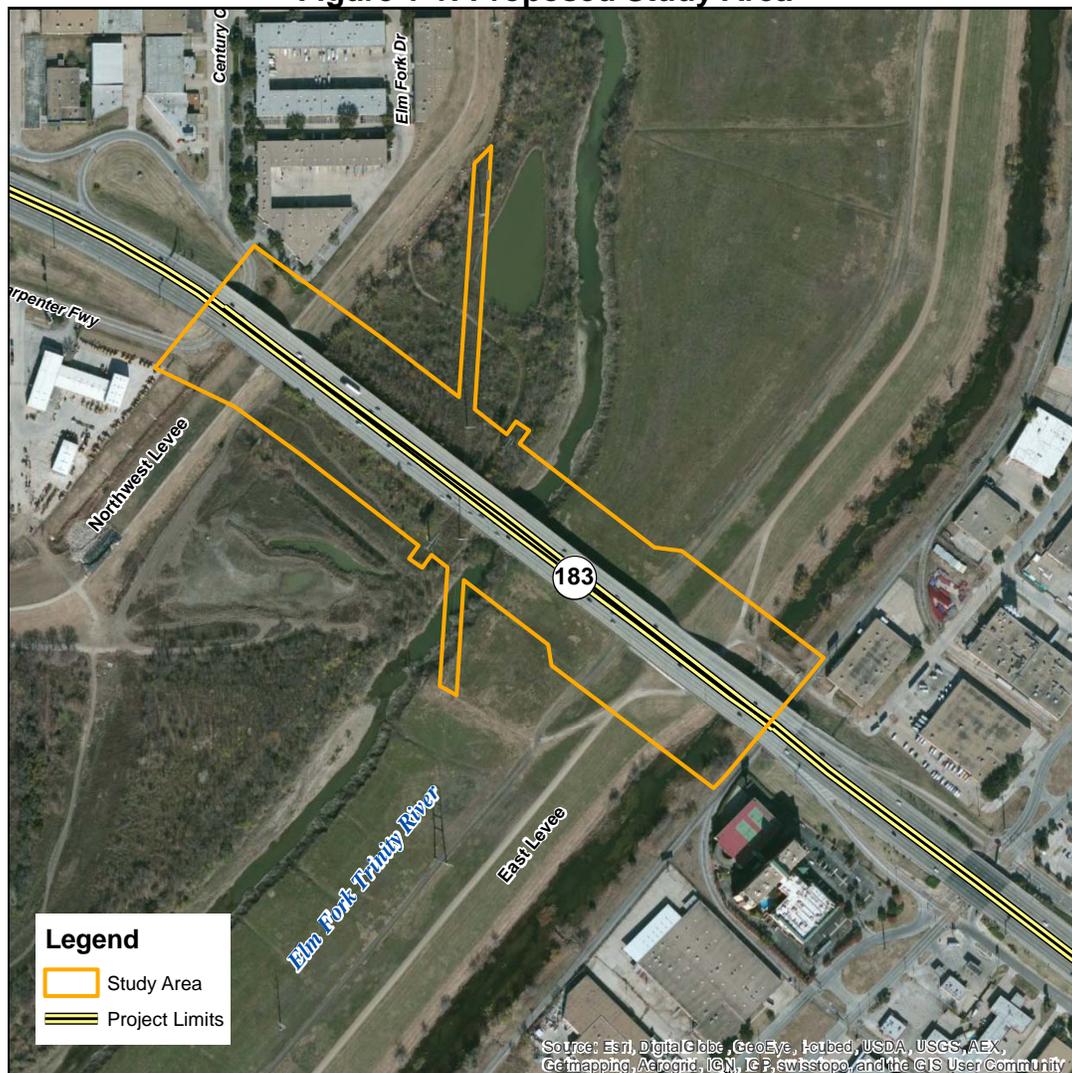
Transportation improvements are needed along SH 183 to address current and projected transportation demand and existing facility deficiencies. Continued growth in population and employment has created a need for a more efficient transportation system in the Dallas-Fort Worth Area (DFW) Metropolitan Area. The purpose of the proposed SH 183 project is to improve mobility, reduce congestion, and improve safety.

### 1.2 Scope

The scope of the SEA is to evaluate the potential environmental impacts from the construction of the proposed SH 183 Bridge over the Elm Fork of the Trinity River as part of the future Minor Section 408 request for NEPA compliance under the programmatic PEA. The proposed bridge would cross the East and Northwest levees of the Dallas Floodway (see **Exhibit 2, FEMA Floodplain and USGS Quadrangle Map in Attachment A**).

### 1.3 Study Area

The proposed project would involve improvements to SH 183 crossing at the Elm Fork Trinity River, between Grauwlyer Road (Rd.) and Regal Row in Dallas County, Texas (see **Exhibit 1, Project Location Map in Attachment A**). The approximately 4,200-foot (ft) long bridge structure is necessary to accommodate additional lanes. The proposed project would cross the East and the Northwest Levees which are federal projects. Therefore, the study area for the SEA encompasses SH 183 over the Elm Fork Trinity River between 200 ft from the land side toe of the Northwest Levee to 200 ft from the land side toe of the East Levee and within the ultimate ROW. It also includes a section of the existing Oncor utility corridor and proposed billboard relocation sites. See **Figure 1-1** for the proposed study area.

**Figure 1-1: Proposed Study Area**

## 2.0 DESCRIPTION OF ALTERNATIVES

### 2.1 Alternative 1 – No Action

The No Action alternative would maintain the status quo. The proposed improvements would not occur. Under this alternative, there would not be bridge construction across the Elm Fork Trinity River. There would be no mobility or safety improvements and no reduction in congestion. This alternative would be inconsistent with the North Central Texas Council of Governments (NCTCOG) Mobility 2035-2013 Update Metropolitan Transportation Plan (MTP). This alternative would not meet the purpose and need of the project.

## 2.2 Alternative 2 – Proposed Action

The SH 183 proposed project would be constructed in phases. The base project improvements, currently being proposed for advancement as part of the SH 183 Managed Lanes Project, would consist of the construction of a new parallel bridge structure along the westbound side of the existing bridge. The new structure would accommodate the westbound general purpose lanes. One managed lane in each direction, as well as the eastbound general purpose and auxiliary lanes remain on the existing structure. An additional construction component is currently proposed to add two additional structures on the eastbound side of the existing bridge. One structure would carry the eastbound general purpose lanes and one structure for the eastbound frontage road to accommodate 5 westbound general purpose lanes, 2 additional concurrent high-occupancy vehicle (HOV)/managed lanes, and 4 eastbound frontage road lanes. See **Exhibit 3: Typical Sections** in **Attachment A**. The NCTCOG currently defines HOV as a vehicle with two or more occupants and is commonly referred to as “2+.” However, *Mobility 2035 - 2013 Update* Metropolitan Transportation Plan (MTP) identifies and recommends a need to begin the transition to a managed lane system, while at the same time reviewing current policies regarding a possible shift in the occupancy definition from “2+” to three or more occupants “3+.”

The final phase would construct an additional westbound frontage road structure and an elevated eastbound managed lane structure. The final phase configuration would consist of 10 general purpose lanes, 6- to 8- lane continuous frontage roads and 6 concurrent HOV/managed lanes with an elevated bridge structure for the 3 eastbound HOV/managed lanes. The Proposed Action Alternative would include bicycle and pedestrian facilities. See **Exhibit 4: Proposed Schematics** in **Attachment A**.

In addition, the proposed project would traverse approximately 22 acres of land located within the Dallas Floodway. The land, which is within a floodplain area, is owned by the City of Dallas, the City of Irving, and a private individual. The land is under USACE and Federal Emergency Management Agency (FEMA) jurisdiction. The private property owner gave the Irving Flood Control District No. 1 (IFCD), Dallas County and the USACE long term use agreement to his land. TxDOT would acquire a permanent easement for the proposed ROW from the City of Dallas, the City of Irving, and from the private property owner [TxDOT to confirm] for the section of the project crossing the Dallas Floodway.

The proposed project limits within the Dallas Floodway include the areas necessary to construct the proposed project. A temporary construction access road would be necessary to ensure access along the project corridor within the Dallas Floodway. It is anticipated the temporary access road would consist of an earthen berm with rock on the surface. The access road would be located within the proposed ROW and would not require a temporary construction easement. Access for the relocation of the Oncor towers would occur along the existing Oncor utility corridor. It is anticipated the access for the relocation of the billboards would occur from within the proposed ROW and no temporary easements would be necessary.

Construction staging areas, stockpiling areas, etc. would be located by the contractor outside of the Dallas Floodway and outside of the proposed project limits in upland areas. These areas would be selected by the construction contractor who would be responsible for any potential impacts and mitigation.

Environmental impacts from the ultimate project have been assessed in two separate documents by TxDOT: an EA, approved in 2004, and a re-evaluation, approved in 2012. Currently, TxDOT is assessing the environmental impacts from the proposed interim improvements (the base project) through a re-evaluation consultation checklist (RCC).

Preliminary bridge layouts were developed based on a schematic depicting the final configuration dated March 13, 2012 to facilitate the USACE Section 408 review. This schematic has also been provided to prospective P3A developers. Final design and 100 percent complete plans and specifications for the SH 183 Bridge over the Elm Fork of the Trinity River will be prepared by the selected P3A developer.

While it is anticipated that it may be necessary to relocate some of the existing utilities (i.e., Oncor transmission towers, distribution poles and distribution lines), the existing utilities are not expected to pose substantial problems to the construction, operation, or maintenance of the proposed facility. Three existing Oncor utility towers would be altered to provide the appropriate clearance of the transmission lines above the proposed roadway. Two of the Oncor towers are within the proposed project ROW and would be removed. Two new towers would be constructed outside of the proposed ROW within the existing Oncor utility corridor. It is unknown at this time if the third Oncor tower would be relocated or a new tower would be constructed at the current location. Detailed plans for the alterations of the towers, including their new locations, would not be determined until a later time. It is anticipated that the new tower bases would be a 10- ft diameter column. Potential environmental impacts associated with the Oncor tower relocations are assessed under Section 4.0 Environmental Consequences.

No residential displacements or relocations would result from the proposed action. However, four billboards would need to be relocated. The billboards (located in two sites) are adjacent to the existing right-of-way (ROW) on each side of SH 183 within the Dallas Floodway. A single support structure attached to a concrete base approximately 3- to 4 ft in width supports the billboards. The billboards are located within two parcels of private land owned by the same individual. It is anticipated the billboards would be relocated to a site adjacent to the proposed ROW within the same parcels.

To mitigate for the effect that the proposed project would have on the 100-year and standard project flood (SPF) water surface elevations and valley storage capacity in the Dallas Floodway, several mitigation measures are proposed. The proposed measures would consist of an earthen berm, extending the levee toe and placing rip-rap on the East Levee, and excavation within the Dallas Floodway. The earthen berm (6-ft wide and 5-ft tall) would be constructed between the upstream edge of the SH 183 Bridge deck and the proposed ROW. The proposed berm would be parallel to the proposed bridge and located within the overbanks of the Dallas Floodway. The berm would

extend from each levee to a point near the Elm Fork Trinity River. In addition, the riverside toe of the East Levee would be extended using a 4:1 slope and armored with smooth concrete riprap. The earthen berm and levee extension is necessary to compensate for a small rise in the water elevations for the 100-year flood and SPF downstream of the proposed project.

To compensate for the loss of valley storage upstream due to the number of columns being placed within the Dallas Floodway, the area below the bridges within the overbanks would be excavated to a depth of approximately 5.5 ft and revegetated with herbaceous vegetation. The levees do not allow for permanent excavation within 200-ft of the existing toe of the levee. Therefore, a 200-ft buffer from the toe of the levees towards the Trinity River was left unexcavated. The purpose of the excavation is to mitigate for the loss of valley storage. However, due to the depth of the excavation, over time the area would potentially become a wetland feature. The location of the proposed mitigation measures are shown on **Exhibit 5, Sheet 3 of 3 in Attachment A.**

### **3.0 AFFECTED ENVIRONMENT**

The PEA generally discussed affected environments within the USACE Fort Worth District Civil Works Boundary, including the Dallas Floodway. The following sections provide site-specific information for the proposed phased and ultimate project improvements for the SH 183 Bridge over the Elm Fork of the Trinity River project in order to assess the environmental consequences of alternatives.

#### **3.1 Setting**

The proposed project is located within the cities of Dallas and Irving, in Dallas County, Texas, within the Dallas Floodway. The proposed project is adjacent to parks, industrial, manufacturing, and commercial properties. The limits for the SH 183 bridge project extend from Grauwylar Rd. and Regal Row. However, for purposes of this SEA, the study area encompasses SH 183 over the Elm Fork Trinity River between 200 ft from the land side toe of the Northwest Levee to 200 ft from the land side toe of the East Levee and within the ultimate ROW. It is anticipated, that the ultimate improvements would be phased into three stages as discussed in Section 2.2.

#### **3.2 Socioeconomic Resources**

The U.S. Census Bureau has the 2010 population data currently available online and was utilized for this study. According to 2010 census data, the study area is located within Census Tract 201, Block Group 1, Census Blocks 1029, 1039, 1041, 1042, 1084, 1085, 1086, and Census Tract 100, Block Group 2, Census Blocks 2038, 2041, 2042, 2043, 2044, 2045, 2047, 2048, 2049, 2061, 2062, 2074, and 2370. There are a total of 133 people that live in Block 1084 with 49 percent of the population consisting of minorities (29 percent African American, 7 percent Asian) and 16 people that live in Block 2061 with 18 percent of the population consisting of minorities (6 percent African American, 12 percent Hispanic). A population of zero was reported for the other

Census Blocks. The median household income within Census Tract 100 is \$34,250 and \$33,276 for Census Tract 201.

### 3.3 Hazardous Materials

The Hazardous, Toxic and Radioactive Wastes (HTRW) assessment performed for this SEA broadly follows guidance provided by the American Society for Testing and Materials (ASTM) E1527-05 standard. The assessment was conducted in general accordance with the ASTM E1527-05 and applicable sections of TxDOT's current "*Hazardous Materials in Project Development Guidance*" with exceptions to accommodate the particular situations and needs of the Section 408 modification activities.

The HTRW were also assessed for the study area in three separate TxDOT environmental documents (an EA and two re-evaluations). For the EA, a FONSI was received from FHWA in February 2004 for SH 183 from SH 360 to I-35E. A re-evaluation of the project from SH 183 from SH 360 to I-35E occurred and concurrence that the original FONSI remained valid was received in April 2012. TxDOT is assessing the environmental impacts from the proposed interim improvements (the base project) through another re-evaluation, a RCC, anticipated for approval in the spring of 2014. These assessments did not identify any sites of concern within the study area.

A review of environmental regulatory databases was conducted for the study area to determine if any known sites producing, storing, and/or disposing of toxic or hazardous materials might affect the proposed project. An environmental regulatory database report for the SH 183 Bridge over the Elm Fork of the Trinity River was obtained from Geo-Search in October 2013. These databases, included in **Attachment B**, were obtained directly from government sources.

The ASTM radius search of the proposed project was reviewed. The federal and state database search identified 58 total sites within the search radius for the project and provided the locations for 56 of the sites.

The sites identified from the federal databases consisted of:

- 1 Facility Registry System (FRSTX) site;
- 1 No Longer Regulated RCRA Generator Facilities (NLRRCRAG) site;
- 1 Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS) site (site is unlocatable); and
- 1 No Further Remedial Action Planned Sites (NFRAP) site (site is unlocatable).

The sites identified from the state databases consisted of:

- 11 Industrial Hazardous Waste (IHW) sites;
- 9 Petroleum Storage Tanks (PST) sites;
- 1 Affected Property Assessment Reports (APAR) site;
- 3 Innocent Owner/Operator Database (IOP) sites;
- 17 Leaking Petroleum Storage Tanks (TXLPST) sites;
- 1 Municipal Solid Waste Landfill (MSWLF) site;

- 5 Voluntary Cleanup Program (VCP) sites; and
- 7 Industrial and Hazardous Waste Corrective Action Sites (IHWCA) sites.

Of the sites identified in the database search, only one site is located within the study area. According to the data provided Geo-Search, Smith Painting (Site 1) extends into the study area between Century Center Boulevard and the Northwest Levee. The site address is 2030 Century Center Boulevard, Suite 5. The mapped boundary of the site includes the entire parcel and extends south to the existing SH 183 facility. The site is classified on the FRSTX as “painting and wall covering contractors.” It is currently listed on NLRRCRAG and in the IHW database as a conditionally exempt small quantity generator. The waste generated is waste paint and solvents from cleaning of brushes and equipment used in painting. The physical location of the site according to the address is approximately 450 ft north of the study area in a commercial business complex. The proposed ROW at this location would impact the southern edge of the site boundary, but would not displace any structures.

A visual survey of the study area was conducted for evidence of hazardous substances and/or contamination on October 23, 2013. This survey included walking the study area and a visual observation of properties located within and immediately outside the study area to identify the release or threatened release of petroleum products or other hazardous substances. The survey did not include collection of samples of soil, water, or other materials. Interviews with the property owners and/or current occupants were not conducted as part of the survey. A complete Phase I Environmental Site Assessment was not completed for the study area.

In addition to the sites listed in the environmental database report, one previous environmental report for projects within the Dallas Floodway was reviewed as it collected soil analytical data within the Dallas Floodway. The report (CH2M Hill, Phase II Environmental Site Assessment, Dallas Floodway, Upper Trinity River, Dallas, Texas, prepared for USACE, Fort Worth District, February 2008) presents the results of environmental analysis conducted within the Trinity River Floodplain. A total of 96 soil probes were performed for this study. The soil borings were located within the Trinity River Floodplain, between Corinth Street and the John Carpenter Freeway/SH 183 bridge for the East Levee and the Loop 12 bridge for the West Levee. Selected soil samples were collected from the soil probes and analyzed for VOCs, SVOCs, the eight RCRA metals, herbicides, pesticides and polychlorinated biphenyls (PCBs). Installation of groundwater monitoring wells and groundwater sampling were not performed for this study. A total of five soil borings (SB046, SB047, SB086, SB087, and SB088) from this study are located within the study area for the proposed SH 183 project.

### 3.4 Noise and Aesthetics

The study area is located within an urban setting, adjacent to parks, industrial, manufacturing, and commercial properties. The predominant noise sources consist of vehicular traffic traveling the existing transportation network. Other contributors to the

local noise environment within the Dallas Floodway include the Dallas Floodway System pumps, construction equipment performing O&M activities, and/or trash screens.

The visual environment for the Dallas Floodway component of the aesthetics and visual resources levees includes marshes, riparian trees lining the river channel, scattered water features, open herbaceous meadows of mostly native turf grasses, and isolated pockets of woody vegetation, all of which are bound by earthen, grass-covered berm levees. Several transportation and utility infrastructure crossings are also dominantly visible within the Dallas Floodway. In addition, two billboards are located north and south of the bridge. The Trinity River, usually confined to its channel, is itself also an attribute of the visual environment within the floodway.

Heavy machinery would be used to clear vegetation and construction of bridge structures. Noise and aesthetic concerns would be a factor during the time of construction.

### 3.5 Aquatic Resources

#### 3.5.1 Surface Water

There is one named waterway, the Elm Fork Trinity River, located within the study area. This segment of the river is a man-made channel that re-routed the hydraulic conveyance from the natural channel to the present-day straightforward alignment and location. Two linear sumps traverse the study area under SH 183 on the land side of the Irving Levee and on the land side of the East Levee. The project is located within the 100-year floodplain. See **Exhibit 2** in **Attachment A**.

According to the 2012 approved Texas Commission on Environmental Quality (TCEQ) Section 303(d) list, the Elm Fork Trinity River is not considered an impaired water segment. However, the proposed project is located within five miles upstream of the Upper Trinity River (Segment 0805), an impaired water segment. Segment 0805 is listed as impaired due to dioxin in edible tissue and PCBs in edible tissue.

#### 3.5.2 Groundwater

There are two water-bearing aquifers underlying the study area, which include the Woodbine aquifer and the Paluxy formation. The Woodbine aquifer and Paluxy formation are part of the Trinity group, a major aquifer in the state of Texas. The Woodbine aquifer is composed of sandstone beds interbedded with shale and clay. This aquifer is divided into three water-bearing zones that differ in productivity and quality. The lower two zones of the aquifer are accessed to supply water for domestic and municipal uses. The upper Woodbine zone contains water of very poor quality. Heavy municipal and domestic uses have contributed to over 100 ft in water-level declines within these aquifers throughout North Central Texas. The aquifer reaches a maximum depth of 2,500 ft below land surface level with a maximum thickness of approximately 700 ft. The Paluxy formation, a minor aquifer, is a relatively thin

stratigraphic unit composed of sandstone, limestone, and shale. This formation is charged with fresh to slightly saline water. The most extensive exploitation of the Paluxy formation has occurred around the Dallas-Fort Worth (DFW) metropolitan area of Tarrant and western Dallas counties. Extensive development of these aquifers has occurred in the DFW region where water levels have historically dropped as much as 550 ft according to the Texas Water Development Board.<sup>1</sup>

### 3.5.3 Floodplains

The Flood Insurance Rate Map (FIRM) number 48113C0310J (Effective Date August 23, 2001) was reviewed to determine flood zones present within the proposed project limits. The flood zones within the limits of the proposed project are designated as special flood hazard areas inundated by the 100-year flood, Zone AE, base flood elevations determined; Zone X500, areas of the 500-year flood; and Other areas are designated as Zone X, areas determined to be outside the 500-year floodplain. Dallas County and the City of Dallas are participants in the National Flood Insurance Program (NFIP). The project is located within a FEMA designated 100-year floodplain.

The Trinity River Environmental Impact Statement (TREIS) Record of Decision (ROD) criteria applies because the proposed project would be constructed over and within the Trinity River floodplain. The TREIS ROD criteria states that proposed projects would need to demonstrate, individually and cumulatively, that there is no increase in water surface elevations or valley storage for the 100-year and less than five percent valley storage loss for the SPF event. Valley storage is defined as the water volume that occupies the floodplain during the passing of the flood event and is a measure of the floodplain capacity. Valley storage change is necessary to determine if a loss of valley storage would occur due to implementation of a project, and to quantify the magnitude of the change.

The proposed project is located within a floodplain and would need to comply with EO 11988 which requires federal agencies to avoid to the extent possible the long- and short-term adverse impacts associated with the occupancy and modification of floodplains and to avoid direct and indirect support of floodplain development wherever there is a practicable alternative.

### 3.5.4 Waters of the U.S., including Wetlands

Pursuant to Executive Order (EO) 11990 (Protection of Wetlands), Section 404 of the Clean Water Act (CWA), and Section 10 of the Rivers and Harbors Act of 1899, an investigation was conducted to identify potential jurisdictional waters of the U.S., including wetlands, within the study area. A preliminary jurisdictional determination was conducted, and as such, all water and wetland features located within the study area are considered potentially jurisdictional.

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<sup>1</sup> Ashworth, John B. and Janie Hopkins. 1995. *Aquifers of Texas*. Texas Water Development Board, Report 345.

There were three water features (Sites W1, W2, and W3) and no wetlands identified within the study area. The water features identified are the Elm Fork Trinity River and two linear sumps on the land side of the levees. The three water features total approximately 1.84 acres. **Exhibit 5 in Attachment A** shows the location of the water features. Water and wetland features located beyond the study area were not assessed.

The Elm Fork Trinity River (Site W2) within the study area is approximately 0.75 acre (450 linear ft) in size. It is a man-made channel that re-routed the hydraulic conveyance from the natural channel to the present-day alignment and location. The Elm Fork Trinity River is contained within an earthen channel that flows between the levees. Within the project limits the channel contains relatively steep banks down to the ordinary high water mark.

The man-made linear sumps (Sites W1 and W3) were formed as a result of the levee construction and are located adjacent to the land side toe of levee. The linear sumps provide for the conveyance of stormwater to the pump stations and the water is then pumped into the levees and flows to the Trinity River. These features are contained in earthen channels. The channels are maintained to ensure stormwater flows to the pump stations.

The study area encompasses the area necessary to construct the proposed project and would incur temporary and permanent impacts resulting from the construction activities within the Dallas Floodway and adjacent sumps.

### 3.6 Biological Resources

#### 3.6.1 Vegetation

The vegetation within the study area consists of herbaceous vegetation and riparian woodlands. Approximately 7.2 acres of the existing ROW and 1.9 acres of the proposed ROW is herbaceous vegetation. Approximately 3.2 acres of the existing ROW and 1.9 acres of the proposed ROW are considered riparian woodlands.

The herbaceous vegetation is dominated by Bermudagrass (*Cynodon dactylon*), Johnsongrass (*Sorghum halepense*), foxtail (*Hordeum spp.*), and balloon vine (*Cardiospermum halicacabum*). The herbaceous vegetation is maintained by mowing on a regular basis.

The riparian woodlands area is located along the Elm Fork Trinity River and between the river and Irving Levee. Dominant species observed include black willow (*Salix nigra*), American elm (*Ulmus americana*), winged elm (*Ulmus alata*), wild rye (*Elymus interruptus*), green ash (*Fraxinus pennsylvanica*), cedar elm (*Ulmus crassifolia*), cutgrass (*Leersia Sw.*), giant ragweed (*Ambrosia trifida*), smartweed (*Polygonum pensylvanicum*), and camphor weed (*Heterotheca subaxillaris*).

### 3.6.2 Fish and Wildlife Species

Fish and wildlife species found within the study area would be similar to that described in the PEA. In addition to those species described in the PEA, various mussel species were observed within the study area at the Elm Fork Trinity River on October 23, 2013.

### 3.6.3 Threatened and Endangered Species

The U.S. Fish and Wildlife Service (USFWS) lists one species as threatened (piping plover) and four species as endangered (black-capped vireo, golden-cheeked warbler, interior least tern and whooping crane) within Dallas County, (USFWS 2013). The study area does not contain any designated critical habitat for any of the federally listed species.

The black-capped vireo can be found in young semi-open tree stands consisting mostly of juniper and oak trees. Wintering in Mexico, this species arrives in late March to April and frequently return to previously visited locations. Their diet consists of insects (USFWS 2013).

Golden-cheeked warblers are found in mature oak-juniper tree stands. They require older growth forests with a dense tree canopy. Their diet consists of insects including caterpillars (USFWS 2013). They highly depend on the bark of old growth Ashe Juniper trees for nest construction.

Piping plovers are shorebirds typically found on sandy beaches and lakeshores. The species is a migratory bird that winters along the Gulf Coast of Texas.

Interior least terns nest along sand and gravel bars within braided streams and rivers. They are also known to nest on man-made structures (inland beaches, wastewater treatment plants, gravel mines, etc.). Their diet includes small fish and crustaceans and when breeding they will forage within a few hundred feet of the nesting colony (TPWD 2013).

Whooping cranes are a potential migrant throughout most of Texas to the coast. They winter in coastal marshes of Aransas, Calhoun, and Refugio counties (TPWD 2013).

None of the federally listed species were observed within the study area. Some habitat adjacent to the study area could be suited for brief use as feeding habitat by the interior least tern (i.e., the river proper). However, it is unlikely that this species would use the study area for the foreseeable future because no suitable habitat was observed within the study area.

## 3.7 Air Quality

The proposed action is located within the DFW nonattainment area. An applicable difference from the PEA is the 2008 eight-hour ozone standard designation. A ten-

county DFW area was reclassified to be in “moderate” nonattainment under the 2008 eight-hour ozone National Ambient Air Quality Standards (NAAQS), effective July 20, 2012 (77 FR 30088). The DFW area includes the nine counties that were designated under the 1997 eight-hour ozone standard in addition to Wise County. The attainment deadline for the DFW moderate attainment area is December 31, 2018.

### 3.8 Climate

The climate for the state of Texas for this proposed project would be similar to what is described in the PEA.

### 3.9 Cultural Resources

#### *Historic Resources*

Cultural resources typically include archaeological, historical architectural, and traditional cultural properties associated with Native Americans or other groups. Section 106 of the National Historic Preservation Act (NHPA) of 1966 as amended, requires that all federal agencies take into account the effects of their undertakings on historic properties. These properties can include buildings, structures, locations, features, and objects older than 50 years and which are currently listed on, or eligible for nomination to, the National Register of Historic Places (NRHP). The NHPA defines a historic property as “any prehistoric or historic district, site, building, structure, or object included in, or eligible for inclusion on the National Register...”

Section 405(a) of the 2010 Supplemental Disaster Relief and Summer Jobs Act (PL 111-212) states that the USACE is not required to make determinations of eligibility under the NHPA for the Dallas Floodway. USACE Implementation Guidance dated October 19, 2010 directs the Fort Worth District not to make determinations under the NHPA and to examine, describe, and consider the built environment that comprises the proposed project as cultural resources within the context of the scope of impacts that must be analyzed under NEPA. While the NHPA compliance process is usually used to satisfy NEPA requirements, PL 111-212 does not remove USACE requirements in regard to cultural resources under NEPA and other cultural resource related laws and regulations.

Separate from the requirements of the NHPA, NEPA requires consideration of important historic and cultural aspects of our natural heritage, implemented through the CEQ regulations. Council of Environmental Quality regulations, in Section 1502.16 (g), require a discussion of environmental consequences to include “urban quality, historic and cultural resources and the design of the built environment, including the reuse and conservation potential of various alternatives and mitigation measures.”

To satisfy the requirements of NEPA, the USACE conducted a cultural resources survey of the Dallas Floodway with a narrative that describes the development, function, composition, and current operation of the Dallas Floodway and discusses the significance of this cultural resource’s structural features and relationships with the

historical development of the City of Dallas without explicit reference to the criteria used to determine NRHP eligibility [*“Intensive Engineering Inventory and Analysis of the Dallas Floodway, Texas (Final)”*]. The resulting cultural resource survey independently establishes criteria to determine the presence of significant historic and cultural resources.

#### *Archeological Resources*

TxDOT included the SH 183 project on the list for “archeological surveys, no further work recommended” during preparation of the 2004 EA. TxDOT Cultural Resources Management reviewed the additional ROW assessed during the 2012 re-evaluation and determined that additional investigations were not warranted and included the SH 183 project on the monthly “no survey list.” According to the TxDOT October 2013 Draft RCC for SH 183 Phase 1 interim improvements, no additional coordination would be performed.

### 3.10 Recreation

The proposed project lies within the Trinity River Greenbelt Park. The Trinity River Greenbelt Park is an urban open space park of approximately 3,652 acres. The designated primary use of the Trinity River Greenbelt Park is floodplain and flood control, with secondary use as park and open space. The City of Dallas purchased the Trinity River Greenbelt Park for parks and open space, including transportation improvements. The deed records of the City of Dallas’ acquisition of the Trinity River Greenbelt Park include a conveyance for transportation purposes. The SH 183 Bridge traverses the Trinity River Greenbelt Park. No existing trails intersecting SH 183 were identified within the study area.

## 4.0 ENVIRONMENTAL CONSEQUENCES

This section describes the environmental consequences for each alternative that is considered under this SEA.

### 4.1 Socioeconomic Resources

#### 4.1.1 No Action

No impacts to minorities or low-income populations would occur as a result of implementing the No Action alternative.

#### 4.1.2 Proposed Action

The proposed action would not result in any notable impacts on the surrounding community. Both census tracts that the proposed action falls within are above the 2013 Department of Health and Human Services (DHHS) poverty guideline of \$23,550. The proposed project would not restrict access to any existing public or community services (i.e., use of the trail system). There does not appear to be an unfair distribution of

benefits or adverse impacts, nor any disproportionately high and adverse impacts on minority or low-income populations associated with the proposed action.

## 4.2 Hazardous Materials

### 4.2.1 No Action

No impacts to hazardous materials would occur as a result of implementing the No Action alternative.

### 4.2.2 Proposed Action

Each of the sites in the environmental regulatory databases report was assessed on their potential to pose a risk to the construction of the proposed project. The assessment was based on distance, topographic gradient, historical information, database information, and property impacts of the sites. Sites considered likely to be contaminated and within the proposed ROW are categorized as “high risk”. Sites are categorized as “low risk” if available information indicates that some potential for contamination exists, but the site is not likely to pose a contamination problem during construction. Of the 58 sites identified in the environmental regulatory databases, none of the sites are considered to pose a risk (high and/or low) to the construction of the proposed project. Based on the visual survey, there are no sites immediately adjacent to the study area that are considered to pose a risk to the construction of the proposed project.

Smith Painting (Site 1) extends into the study area between Century Center Boulevard and the Northwest Levee. The physical location of the site according to the address is approximately 450 ft north of the study area in a commercial business complex. The site is listed on the FRSTX, NLRRCRAG, and IHW databases. Due to its physical location in relation to the proposed project, the site is considered not to pose a risk to the construction of the proposed project.

There are five soil borings within the study for which samples had been collected from the soil probes and analyzed for VOCs, SVOCs, the eight RCRA metals, herbicides, pesticides and PCBs. The five soil borings located within the study area are shown in **Exhibit 7**, included in **Attachment A**. The CH2M Hill report was reviewed to identify Soil Constituents of Concern (COCs) for the proposed construction activities. No herbicides, pesticides, or PCBs concentrations were reported for any of the five soil borings. Only two of the soil borings (SB046 and SB087) reported concentrations of VOCs. Each of these concentrations are below the State of Texas Critical protective concentration levels (PCLs). There were three soil borings (SB086, SB087, and SB088) that reported concentrations of SVOCs. Each of these reported 4-nitrophenol at a concentration that exceeded the PCL for protection of Class 1 and Class 2 groundwater (suitable for ingestion) through COCs leaching from soils. No other SVOC concentrations exceeded the State of Texas Critical PCLs.

Each of the five soil borings is also considered COCs for heavy metals. These are arsenic, barium, cadmium, chromium, lead, mercury, selenium, and silver. The five soil borings and their metal concentrations are included in **Table 4-1**. The table also includes the concentration levels of metals for each of the soil borings relevant to the current TCEQ Tier 1 PCLs, the Texas-Specific Soil Background Concentrations (TSSBC), and the potential exposure scenario of the Texas Risk Reduction Program (TRRP) Tier 1 PCLs of the total soil combined ( $^{Tot}Soil_{Comb}$ ) pathway. It is to be noted, that for this assessment, the relevant pathway for comparison purposes is the  $^{Tot}Soil_{Comb}$  pathway for a 30 acre source area. The  $^{Tot}Soil_{Comb}$  is the PCL for human health exposures to surface soils through the combined ingestion of soil and vegetables, inhalation of volatiles and particulates, and dermal contact pathways. The table includes several soil analytical results that have a “J” flag, indicating that the reported result is an estimated value.

**Table 4-1: Summary of Constituents of Concern**

Soil Boring ID	COCs	Depth	Concentration Ranges	TSSBC	TotSoilComb
Units		feet bgs	mg/Kg	mg/Kg	mg/Kg
SB046	Arsenic	0-2 & 13-15	6.44 J, 6.41 J	5.9	24
	Barium		152, 148	300	8,100
	Cadmium		0.235 J, 0.236 J	NA	52
	Chromium		34.4 J, 29.3 J	30	27,000
	Lead		16.7 J, 14.9	15	500
	Mercury		0.0399 U	0.04	2.1
	Selenium		0.482 J, 0.468 J	0.3	310
	Silver		0.0661 J, 0.0518 J	NA	97
SB047	Arsenic	0-2 & 13-15	7.09 J, 6.74 J	5.9	24
	Barium		130, 110	300	8,100
	Cadmium		0.211 J, 0.244 J	NA	52
	Chromium		28.5 J, 33.3 J	30	27,000
	Lead		16.2, 14.7	15	500
	Mercury		0.0393 U, 0.0378 U	0.04	2.1
	Selenium		0.733, 0.137 U	0.3	310
	Silver		0.0675 J, 0.0561 J	NA	97
SB086	Arsenic	0-2 & 13-15	4.64 J, 4.61 J FD, 5.54 J	5.9	24
	Barium		144,164 FD,181	300	8,100
	Cadmium		0.141 J, 0.153 J FD, 0.202 J	NA	52
	Chromium		31.4, 29.4 FD, 29.1	30	27,000
	Lead		14.8, 15.3 FD, 15.5	15	500
	Mercury		0.0391 U, 0.0395 U FD, 0.0388 U	0.04	2.1
	Selenium		0.255J, 0.297 J FD, 0.401 J	0.3	310
	Silver		0.0566J, 0.0554J FD, 0.0443 J	NA	97
SB087	Arsenic	0-2 & 5-7	4.75 J, 5.56 J FD, 4.92 J	5.9	24
	Barium		188, 153 FD, 145	300	8,100
	Cadmium		0.169 J, 0.186 J FD, 0.184 J	NA	52
	Chromium		30.4, 31.7 FD, 32	30	27,000
	Lead		21.8, 29.2 FD, 21.2	15	500
	Mercury		0.0416 U, 0.0414 U FD, 0.0425 U	0.04	2.1
	Selenium		0.345 J, 0.338 J FD, 0.403 J	0.3	310
	Silver		0.0583 J, 0.051J FD, 0.0592 J	NA	97
SB088	Arsenic	0-2 & 4-6	5 J, 5.11 J, 4.75 J	5.9	24
	Barium		157, 149 FD, 83.3	300	8,100
	Cadmium		0.241 J, 0.248 J FD, 0.149 J	NA	52
	Chromium		26.5, 25.4 J, 29	30	27,000
	Lead		36.9, 39.3 FD, 14.3	15	500
	Mercury		0.026 J, 0.0389 U FD, 0.0396 U	0.04	2.1
	Selenium		0.322 J, 0.426 J FD, 0.312 J	0.3	310
	Silver		0.0627 J, 0.0628 J FD, 0.0554 J	NA	97

Source: CH2M Hill, Phase II Environmental Site Assessment, Dallas Floodway, Upper Trinity River, Dallas, Texas, prepared for USACE, Fort Worth District, February 2008

Notes: mg/kg=milligrams per kilogram

J=Reported result is estimated

FD=Field Duplicate

U=Note detected at reported quantitation limit

NA=Not applicable

The detected concentrations of each of the COCs are below the relevant potential exposure scenario of the TRRP Tier 1 PCLs of the total soil combined pathway. Human exposure to COCs could occur during the proposed construction activities. Based on the low reported concentrations of detected COCs on the soils in the proposed study area, it is recommended that no response action (e.g., soil remediation) is warranted. The main exposure pathway for the reported heavy metals detected is inhalation of fugitive dust created during construction activities; however, keeping the materials damp will mitigate this concern. The plans and specifications for the project would include a notice to contractors informing them of the heavy metals known at this time.

The mitigation measures proposed to address the effect that the proposed project would have on the 100-year and SPF water surface elevations and valley storage capacity in the Dallas Floodway would occur in the area of the COCs. As more detailed project design is developed, the potential for these COCs to affect the proposed construction would be evaluated. Additional investigation and assessment of the COCs may be necessary to identify if construction activities at those locations may encounter contaminants.

Excess excavated soils may be incorporated into the plans and specifications for the proposed project. Excess soils may be utilized on the levee, the proposed berm, and within the Dallas Floodway for maintenance of existing access roads. During construction, but prior to major excavating activities, it is recommended that soil samples will be collected at the location of the proposed bridge columns near the COCs. At each location, soil samples will be screened in the field for total VOCs and for arsenic, lead and mercury. If soil samples are above thresholds then laboratory soil samples will be collected for VOCs and SVOCs analyses. The soil samples will be compared to TRRP Tier 1 PCLs for the residential scenario. If soil samples are above the TRRP Tier 1 PCLs of the  $^{Tot}Soil_{Comb}$  pathway for the residential scenario soil samples will be analyzed for the eight RCRA metals by an analytical laboratory. If soil samples are over the twenty times rule then soil samples will be analyzed for the particular parameter by TCLP methods and compared to 40 CFR 261.24. During construction, but prior to excavation activities, it is recommended that three soil samples be collected (equally spaced) within the proposed mitigation excavation areas. The soil screening and analysis shall be the same as identified above. If soil samples are above the TRRP Tier 1 PCLs of the  $^{Tot}Soil_{Comb}$  pathway for the residential scenario the contractor's selected landfill facility will likely require additional soil analysis for waste characterization and profiling landfill approval. It is recommended that the environmental consultant chosen by the contractor make arrangements for proper disposal of impacted materials for the contractor. Oncor and the owner of the billboards would be notified of the presence of the COCs and it would be their responsibility to address the concerns in their relocations and remediate as necessary.

A Soil and Groundwater Management Plan (SGMP) would be developed for the proposed project by the design build contractor. The SGMP contains recommendations for managing contaminated soil, groundwater, and waste generated during construction. The SGMP provides procedures for field screening of soil and groundwater produced

from construction excavations. It also provides guidance for the proper disposal or discharge of groundwater produced from construction excavations and reuse of affected soils within the same or nearby excavations while minimizing off-site disposal. The design-build contractor would be responsible for preparing a comprehensive Hazardous Materials Management Plan (HMMP) outlining field screening procedures and management of affected soils to be followed during construction.

Oncor tower and billboard relocations are necessary, but specifics have not yet been determined. There is a potential for contamination to be encountered during these relocations. Coordination with Oncor concerning potential contamination would be addressed during the ROW stage of project development.

The removal of the existing bridge structure during the proposed improvements may involve asbestos-containing materials (ACM) and/or Lead Based Paint (LBP). At this time no ACM or LBP surveys are known to have been performed. Any ACM and LBP inspection, specification, notification, license, accreditation, abatement and disposal as applicable would be in compliance with Federal and State regulations. Coordination with Department of State Health Services (DSHS) may be required ten working days prior to construction.

Should unanticipated hazardous materials/substances be encountered, the TxDOT Dallas District Hazardous Materials Section would be notified and steps would be taken to protect personnel and the environment. Any unanticipated hazardous materials encountered during construction would be handled according to applicable federal, state, and local regulations per TxDOT Standard Specifications. The contractor would take appropriate measures to prevent, minimize, and control the spill of hazardous materials in the construction staging area located outside of the Dallas Floodway in upland areas. All construction materials used for this project would be removed as soon as the work schedules permit.

#### 4.3 Noise and Aesthetics

##### 4.3.1 No Action

No impacts from noise or to the visual aspect of the area would occur as a result of the construction of the No Action alternative.

##### 4.3.2 Proposed Action

During construction of the Proposed Action alternative, construction and ground-disturbing activities could create localized, temporary noise impacts from construction equipment and vehicles. According to the EPA, construction equipment and vehicles can generate noise levels of approximately 72 to 95 dBA at a distance of approximately 50 ft. Any impacts from noise or on the visual aspects within the study area would be temporary in nature and occur during the construction phase. There is a possibility that noise levels would be above normal levels in the areas adjacent to the ROW.

Noise caused by construction activities would be temporary and restricted to daylight hours when occasional loud noises are considered to be more tolerable. No extended disruption to normal activities in the area would be anticipated by the proposed project.

The implementation of the Proposed Action alternative with corresponding ground disturbing activities would likely result in short-term impacts to aesthetics and visual resources due to the presence of construction equipment, vehicles, and modification measures for construction activities. Typically, construction activities such as storage of materials necessary for the improvements would temporarily affect the visual aspects within the study area. In addition, clearing of herbaceous and woody vegetation during bridge construction would result in temporary aesthetic impacts. Once construction is completed, areas where possible would be returned close to pre-construction state by seeding and replanting with TxDOT approved seeding specifications that is in compliance with EO 13112.

#### 4.4 Aquatic Resources

##### 4.4.1 Surface Water

###### 4.4.1.1 No Action

No impacts to surface waters would occur as a result of implementing the No Action alternative.

###### 4.4.1.2 Proposed Action

During construction, there could be direct impacts to water quality. The runoff from proposed improvements would discharge directly to the Elm Fork Trinity River which is located within five miles upstream of the Upper Trinity River (Segment 0805), which is listed as threatened/impaired for bacteria and PCBs. Sediment from the construction area could be transported to the Elm Fork Trinity River. This could result in temporary water quality impacts in the study area and immediately downstream. It is anticipated the sediment would settle out of the water downstream of the proposed project. The impacts to existing water features would be minimized as much as possible by utilizing approved temporary and permanent erosion and sediment control best management practices (BMPs) as specified by TCEQ Construction General Permit (CGP) (TXR 150000). The CGP requires that a stormwater pollution prevention plan (SW3P), Notice of Intent (NOI), and Notice of Termination (NOT) be prepared for the project improvements proposed as part of the Proposed Action Alternative. The SW3P would detail what BMPs would be utilized and where they would be utilized to reduce stormwater impacts to the maximum extent practicable. The SW3P would also ensure that all disturbed areas were properly re-vegetated prior to the NOT being filed. This project is located within the boundaries of the City of Dallas Municipal Separate Storm Sewer System (MS4), and would also need to comply with the applicable MS4 requirements.

#### 4.4.2 Groundwater

##### 4.4.2.1 No Action

No impact to aquifers and ground water resources would occur from implementing the No Action alternative because no construction would occur.

##### 4.4.2.2 Proposed Action

Potential impacts to groundwater resources are not likely to occur as a result of the proposed project. Construction activities would occur within a relatively small area of the Trinity River floodplain and are not anticipated to reach the depths of aquifers utilized to pump groundwater, or use materials that would potentially contaminate groundwater. No horizontal drilling or other techniques that have been associated with groundwater impacts would occur. The proposed project would not negatively affect recharge of the groundwater because recharge occurs from the landside and not from the riverside of the levees.

#### 4.4.3 Floodplains

##### 4.4.3.1 No Action

No impacts to floodplains would occur under the No Action alternative.

##### 4.4.3.2 Proposed Action

In accordance with EO 11988, measures must be developed to minimize, restore and preserve the floodplain as appropriate. The mitigation measures proposed to address the effect that the proposed project would have on the 100-year and SPF water surface elevations and valley storage capacity in the Dallas Floodway would not impact any water or wetland features. The mitigation measures would occur within the ROW of the proposed project and extend from the levees to a point near the Elm Fork Trinity River.

The hydraulic design for this project would be in accordance with current FHWA and TxDOT design policies. The proposed project would be in compliance with 23 C.F.R. 650 regarding location and hydraulic design of highway encroachments within the floodplains. The proposed project would comply with EO 11988 as the proposed project would replace existing bridge structures and would not support floodplain development. The facility would permit the conveyance of the 100-year flood, inundation of the roadway being acceptable, without causing significant damage to the facility, stream, or other property. The proposed project would not increase the base flood elevation to a level that would violate applicable floodplain regulations and ordinances. Coordination with the local floodplain administrator would be required.

The proposed project would demonstrate that it satisfies the TREIS ROD criteria for water surface elevation, valley storage, and erosive water velocities for both the 100-

year and SPF events. A hydraulic study for the proposed project has been developed and will be included in the Section 408 submittal. The report determined that due to the total number of bridge columns to be placed within the Dallas Floodway, several mitigation measures would be necessary. The proposed measures would consist of an earthen berm, extending the toe and placing rip-rap on the East Levee, and excavation within the Dallas Floodway. The earthen berm and levee extension is necessary to compensate for a small rise in the water elevations for the 100-year flood and SPF downstream of the proposed project. To compensate for the loss of valley storage upstream due to the number of columns being placed within the Dallas Floodway, the area below the bridges within the overbanks would be excavated to a depth of approximately 5.5 ft. Because the proposed project is within the Trinity River Corridor Development Regulatory Zone, the Corridor Development Certificate (CDC) process would apply.

Although the purpose of the excavation within the Dallas Floodway is to mitigate for the loss of valley storage, the depth of the excavation would potentially result in the formation of a wetland feature. The excavated area would be revegetated with herbaceous vegetation.

#### 4.4.4 Waters of the U.S., including Wetlands

##### 4.4.4.1 No Action

No impacts to waters of the U.S., including wetlands would occur under the No Action alternative.

##### 4.4.4.2 Proposed Action

The proposed action would result in direct impacts to the linear swamps and temporary impacts to the Elm Fork Trinity River as a result of new bridge construction in each phase of construction and removal of the existing bridges. The water features within the Dallas Floodway are considered potentially jurisdictional based on the preliminary jurisdictional determination performed. Permanent and temporary impacts would total approximately 0.0073 acre and 2.33 acres, respectively. **Table 4-2** lists the anticipated permanent and temporary impacts to each feature for each phase of construction. Refer to **Exhibit 5** for an illustration.

The base project improvements would consist of the construction of one new bridge structure. Permanent impacts (approximately 0.0014 acre) would occur to Site W3 due to the placement of eight bridge columns along the western edge of the delineated boundary of the feature. There would be no permanent impacts to Sites W1 and W2 because these would be spanned by the proposed new bridge structure. It is anticipated that temporary impacts would occur to each feature; however, the precise construction methods are not known at this time. The temporary impacts may consist of a temporary crossing necessary to construct the proposed bridge structure. The precise dimensions of the temporary crossings are not known at this time; therefore,

temporary impacts were calculated along each water feature to 50 ft outside of the bridge deck.

The additional construction component improvements would involve the construction of separate bridge structures for the eastbound mainlanes and frontage roads. Permanent impacts would occur to Site W1 (0.0008 acre) due to the placement of three bridge columns within the delineated limits of the feature. Permanent impacts would occur to Site W3 (0.0018 acre) due to the placement of seven bridge columns within the delineated boundary of the feature. The temporary impacts may consist of a temporary crossing necessary to construct the proposed bridge structures. The precise dimensions of the temporary crossings are not known at this time; therefore, temporary impacts were calculated from the ROW to the inside edge of the proposed bridge deck.

The final phase of construction would complete the ultimate configuration with the construction of an elevated bridge structure for the east bound HOV/managed lanes and a new bridge structure for the westbound frontage roads. Permanent impacts would occur to Site W3 (0.0033 acre) due to the placement of one bridge column within the delineated boundary of the feature. The temporary impacts may consist of a temporary crossing necessary to construct the proposed bridge structure. The precise dimensions of the temporary crossings are not known at this time; therefore, temporary impacts were calculated from the ROW to the inside edge of the westbound proposed bridge deck and for the width of the elevated bridge deck.

There are approximately nine existing bridge columns within Site W3 that would be removed as a result of the construction activities. Each of these bridge columns are approximately 36-inches in diameter and total approximately 0.0015 acre.

There are three Oncor towers that would need to be altered as a result of the proposed roadway improvements. Two towers are currently located within the proposed project ROW. These two towers would be removed and new towers constructed outside of the proposed ROW. It is unknown at this time if the third Oncor tower would be relocated or a new tower would be constructed at the current location. The towers would be located along the existing Oncor utility corridor. As the new locations of the towers would not be determined until a later time, it is anticipated that the new tower bases would be a ten foot diameter column. If these were to be placed in a water of the U.S., minimal impacts would be anticipated as each base would impact approximately 0.002 acre.

Billboards along to the existing facility would be relocated adjacent to the proposed ROW and would not impact any potential water or wetland features.

The mitigation measures proposed to address the effect that the proposed project would have on the 100-year and SPF water surface elevations and valley storage capacity in the Dallas Floodway would not impact any water features. The mitigation measures would occur within the ROW of the proposed project and extend from the levees to a point near the Elm Fork Trinity River.

**Table 4-2: Anticipated Permanent and Temporary Impacts to Potential Waters of the U.S., Including Wetlands**

Site ID	Feature Name	Anticipated Impacts							
		Base Project		Additional Construction Component		Final Phase		Total	
		Acres	Linear Feet	Acres	Linear Feet	Acres	Linear Feet	Acres	Linear Feet
W1	Linear Sump	P= 0.00 T= 0.29	P=0 T=249	P= 0.0008 T= 0.09	P=12 T=244	P= 0.00 T=0.05	P=0 T=116	P= 0.0008 T= 0.43	P=12 T=609
W2	Elm Fork Trinity River	P= 0.00 T= 0.44	P=0 T=255	P= 0.00 T= 0.31	P=0 T=199	P= 0.00 T= 0.27	P=0 T=158	P= 0.00 T= 1.02	P=0 T=612
W3	Linear Sump	P= 0.0014 T= 0.09	P=24 T=247	P= 0.0018 T= 0.54	P=24 T=232	P= 0.0033 T= 0.25	P=20 T=199	P= 0.0065 T= 0.88	P=68 T=678
	<b>Totals</b>	<b>P= 0.0014 T= 0.82</b>	<b>P=24 T=751</b>	<b>P= 0.0026 T= 0.94</b>	<b>P=36 T=675</b>	<b>P= 0.0033 T= 0.57</b>	<b>P=20 T=473</b>	<b>P= 0.0073 T= 2.33</b>	<b>P=80 T=1,899</b>

P=Permanent; T=Temporary

As shown in **Table 4-2**, it is estimated that approximately 0.0073 acre of jurisdictional waters (80 linear ft) would be permanently impacted by the proposed project. Because the permanent and temporary impacts would occur to potentially jurisdictional features, Section 404 permanent and temporary impacts would be addressed during the Section 408 approval process. The placement of temporary or permanent dredge or fill material in waters of the U.S., including wetlands, would be authorized by Regional General Permit 12 (RGP-12), *Modifications and Alterations of Corps of Engineers Projects*. RGP-12 authorizes the discharge of dredged or fill material into waters of the U.S., including wetlands, and work in or affecting navigable waters of the U.S. associated with modifications and alterations to USACE projects that receive USACE approval under Section 408 and that meet all the General Conditions of RGP-12. A Preconstruction Notification would not be required, because the proposed project does not contain pitcher plant bogs, bald cypress-tupelo swamps, or the area of Caddo Lake in Texas designated as a "Wetland of International Importance." Any temporary crossings would be coordinated with USACE and would meet the General Conditions of RGP-12. State of Texas water quality certification, issued on January 21, 2010, is provided through the conditions of RGP-12 for projects that result in a loss of less than 0.5 acre of waters of the U.S.

RGP-12 states that adverse impacts to waters of the U.S., including wetlands, shall be avoided and minimized to the extent practicable through the use of alternatives that have less adverse impact on the aquatic environment. Complete avoidance of the potentially jurisdictional features would only occur if the proposed project was not constructed. Permanent impacts were minimized by spanning the water features to the extent possible. Minimal permanent fill impacts would be a result of the placement of bridge columns and bridge footings within the boundaries of the potential waters of the U.S.

Because the anticipated permanent impacts are minimal, as detailed in **Table 4-2**, no compensatory mitigation is proposed for the permanent impacts. Typically, compensatory mitigation for projects of this nature and with minimal impacts does not occur. Temporary impacts due to the placement of fill within the waters of the U.S. would be restored to pre-construction elevations and revegetated, as appropriate, with native vegetation after construction is complete.

After the proposed project is let for construction, if additional permanent impacts are identified due to the construction contractor's elected construction methodologies or activities, the contractor would be responsible for obtaining the appropriate Section 404 permit from the USACE.

If necessary, modifications may occur to the linear sumps to compensate for the loss of storage capacity due to the placement of fill (bridge columns) within the limits of the sumps. Because the linear sumps are currently maintained, the modifications would not result in adverse impacts. The modifications would most likely consist of excavation to deepen or widen the sumps within the limits of the proposed project. The linear sumps are part of the interior drainage system and would continue to function as a drainage feature. No mitigation is proposed for the potential modifications of the linear sumps.

#### 4.5 Biological Resources

##### 4.5.1 Vegetation

###### 4.5.1.1 No Action

No impacts to vegetation would occur under the No Action alternative.

###### 4.5.1.2 Proposed Action

The proposed action would result in temporary and permanent impacts to both herbaceous vegetation and riparian woodland vegetation. Removal of vegetation is anticipated due to construction activities associated with the installation of bridge columns, bridge footings, bridge decks, valley storage mitigation, and relocation of the Oncor towers and billboards. Bermudagrass, Johnsongrass, foxtail, and balloon vine dominate the herbaceous vegetation, which is maintained on a regular basis.

The base project improvements would consist of the construction of one new bridge structure on the westbound side of SH 183. It is anticipated the entire ROW on the westbound side of SH 183 would be cleared of all woody vegetation for the construction activities. Approximately 3.2 acres of riparian woodland would be cleared as a result of the construction activities. Approximately 4.2 acres of herbaceous vegetation would also be impacted during construction activities. All areas cleared would be revegetated with herbaceous vegetation and returned to pre-existing contours after construction activities are completed.

The additional construction component improvements would involve the construction of separate bridge structures for the eastbound mainlanes and frontage roads. It is anticipated that the entire ROW on the eastbound side of SH 183 would be cleared of all woody vegetation for the construction activities. Approximately 1.9 acres of riparian woodland would be cleared as a result of the construction activities. Approximately 4.9 acres of herbaceous vegetation would also be impacted during construction activities. All areas cleared would be revegetated with herbaceous vegetation and returned to pre-existing contours after construction activities are completed.

The final phase of construction would complete the ultimate configuration with the construction of an elevated bridge structure for the east bound HOV/managed lanes and a new bridge structure for the westbound frontage roads. It is anticipated that the existing riparian woodland would have already been cleared during the construction of the base project improvements and that the ROW would have been revegetated with herbaceous vegetation. The final phase of construction would result in impacts to herbaceous vegetation only. All areas cleared would be revegetated with herbaceous vegetation and returned to pre-existing contours after construction activities are completed. Refer to **Exhibit 6 in Attachment A** for an illustration of potential vegetation impacts.

The three Oncor towers would be relocated within the existing Oncor utility corridor. Access to the existing and new tower locations would occur from the existing utility corridor. This utility corridor is maintained by the removal of woody vegetation. The utility corridor currently contains herbaceous and shrub/scrub vegetation. The removal and relocation of the two towers within the proposed project ROW would result in approximately 0.002 acre of vegetation impacts at each new location within the existing Oncor utility corridor. The existing tower locations would be allowed to revegetate after their removal. The third Oncor tower may be reconstructed at its current location resulting in minimal additional vegetation impacts.

The relocation of the billboards would result in minimal vegetation impacts. It is anticipated the billboards would be relocated from their current location to sites adjacent to the proposed project ROW. Access to the existing and new locations would occur from the proposed project ROW. The vegetation within the proposed project ROW would be cleared as a result of the bridge construction activities; therefore, the removal of the billboards would not result in any additional impacts. The relocation sites would be cleared of vegetation as needed to accommodate the construction of the concrete bases, support structures, and signs. It is anticipated that approximately 0.11 acre (50 ft by 50 ft construction area) of temporary vegetation impact would occur for the construction activities related to the relocations. After construction is completed, the disturbed area would be revegetated with herbaceous species. Approximately 0.002 acre of permanent impacts would result from the construction of the billboard bases.

The mitigation measures proposed to address the effect that the proposed project would have on the 100-year and SPF water surface elevations and valley storage capacity in the Dallas Floodway would result in minimal permanent vegetation impacts. The

mitigation measures would occur within the proposed project limits, which would initially be cleared of vegetation for the roadway construction activities. Permanent vegetation impacts (0.97 acre) would occur under the bridges at the East Levee due to the armoring of the levee slope. The earthen berm and area of excavation would be revegetated with herbaceous species. Although the intent of the excavated areas is to mitigate for the SPF, these areas may become wetlands and become dominated by wetland species.

The USACE does not require woodland mitigation for Section 408 actions, unless impacts occur within Section 404 jurisdictional areas. This action does not require a preconstruction notification to the USACE or compensatory mitigation under Section 404.

#### 4.5.2 Fish and Wildlife Species

##### 4.5.2.1 No Action

The No Action alternative would not result in impacts to fish and wildlife species because no construction activities would occur.

##### 4.5.2.2 Proposed Action

The proposed improvements would have little impact to water flow of the Elm Fork Trinity River as the new bridge structures would span the river. The impacts to fish and wildlife species would be similar to those impacts described in the PEA, which states that projects “located within urban environments with typical fish and wildlife species adapted to urban activities and surroundings. Since the fish and wildlife have adapted to the present conditions and the proposed alteration would not significantly alter that condition, any impacts to wildlife and their habitats would be temporary in nature and limited to the construction phase.”

Direct impacts to aquatic species (fish, mussels, etc.) could occur if a section of the existing bridge were to fall into the Trinity River during demolition. Increased turbidity and sedimentation during bridge construction could pose a threat to survival of the aquatic species in the study area and downstream. Appropriate measures would be taken to prevent demolition and construction materials from falling into the Elm Fork Trinity River. Any temporary or permanent fill, or work occurring directly in this water body, would require prior coordination with the USACE. Approved BMPs would be installed, inspected, and maintained as detailed in the construction documents.

If permanent or temporary impacts occur at the Elm Fork Trinity River during construction, coordination with TPWD regarding mussel species would be needed. The contractor would inform TxDOT of the proposed temporary crossing and TxDOT would coordinate with TPWD.

### 4.5.3 Threatened and Endangered Species

#### 4.5.3.1 No Action

No impacts to threatened or endangered species would occur under the No Action alternative.

#### 4.5.3.2 Proposed Action

The federally-listed threatened or endangered species known to occur in Dallas County are all avian species that are considered migratory. These species may temporarily use portions of the study area for resting or foraging during their migration. No effects to these species are anticipated to occur as a result of the proposed construction activities.

Ground disturbance related to construction activities may incidentally create areas that are attractive to interior least terns for use as potential nesting sites. The species breeding season extends from May through August. Because construction would be on-going during the breeding season, ground disturbance related to construction activities may incidentally create areas that are attractive to interior least terns for use as potential nesting sites. Large areas (greater than one acre) cleared to bare soil and left idle for more than one week would be surveyed prior to resuming construction activities. Should interior least terns happen to utilize any of the study areas during construction activities, the USFWS would be notified to discuss alternative development plans or the need for consultation under Section 7 of the Endangered Species Act (ESA). Because this section of the Trinity River is not typically utilized during nesting season and there are established nesting areas in the Dallas area, no effects to the species are anticipated to occur as a result of the construction of the proposed project.

#### *Migratory Bird Treaty Act*

Prior to construction activities, the project area would be surveyed for active nests to ensure preservation for songbirds and other species such as barn swallows, cliff swallows and rough-winged swallows. Between October 1 and February 15, the contractor would remove all migratory bird nests from any structures that would be affected by the proposed project, and complete any bridge work and/or vegetation clearing. Between February 15 and October 1, the contractor would be prepared to prevent migratory birds from building nests. In the event that migratory birds are encountered on-site during project construction, adverse impacts on protected birds, active nests, eggs and or young would be avoided. If species are present, construction activities would be postponed and TxDOT personnel would be contacted. If active nests are identified within the construction zone, a local USFWS biologist would be contacted by TxDOT to determine an appropriate plan of action.

## 4.6 Air Quality

### 4.6.1 No Action

There would be no impact to air quality as a result of implementing the No Action alternative because no construction would occur.

### 4.6.2 Proposed Action

This project is an increase capacity project located within Dallas County, which is part of the DFW area that has been designated by the EPA as a moderate nonattainment area for the 2008 ozone NAAQS; therefore, transportation conformity rules apply. The proposed action is included in both the area's financially constrained *Mobility 2035 – 2013 Update* MTP and the 2013-2016 Transportation Improvement Program (TIP), as amended, which were initially found to conform to the TCEQ State Implementation Plan by the Federal Highway Administration on July 19, 2013 and November 1, 2012, respectively.

During the construction phase of the proposed action, temporary increases in air pollutant emissions may occur from construction activities. The primary construction-related emissions are particulate matter (fugitive dust) from site preparation. These emissions are temporary in nature (only occurring during actual construction). The potential impacts of particulate matter emissions will be minimized by using fugitive dust control measures such as covering or treating disturbed areas with dust suppression techniques, sprinkling, covering loaded trucks, and other dust abatement controls, as appropriate. Considering the temporary and transient nature of construction-related emissions, as well as the mitigation actions to be utilized, it is not anticipated that emissions from construction of this project will have any significant impact on air quality in the area.

## 4.7 Cultural Resources

### 4.7.1 No Action

Under the No Action alternative, the improvements to SH 183 would not occur; therefore, no impacts to historic or archeological resources are anticipated. Any cultural resources that may be present in the study area would remain in place subject to both the protective effects of no ground disturbing activities, as well as the potential negative effects that occur through natural and biological actions such as erosion, scouring, or rodent and tree root activity.

### 4.7.2 Proposed Action

NEPA requires consideration of important historic and cultural aspects of our natural heritage, implemented through the CEQ regulations. Council of Environmental Quality regulations, in Section 1502.16 (g), require a discussion of environmental

consequences to include “urban quality, historic and cultural resources and the design of the built environment, including the reuse and conservation potential of various alternatives and mitigation measures.” Therefore, the USACE addresses the potential impacts of the proposed action on cultural resources.

#### *Historic Resources*

##### SH 183 from SH 360 to I-35E [FHWA Environmental Assessment (EA)]

The SH 183 Bridge over the Elm Fork of the Trinity River project has undergone Section 106 coordination in accordance with the Programmatic Agreement (PA) among TxDOT, FHWA, and the ACHP and the Texas Historical Commission (THC), as part of the SH 183 14-mile highway project between SH 360 and I-35E. The project was originally coordinated with THC in a letter dated July 11, 2003 with a determination by TxDOT historians that none of the 106 properties surveyed in the 150 ft. area of potential effects (APE) were eligible to the NRHP. A stamped THC concurrence is dated July 17, 2003 (see **Attachment C**). The EA for the project received a FONSI from FHWA in February 2004.

##### SH 183 from SH 360 to I-35E (FHWA Re-Evaluation)

In 2005 Section 106 coordination for the SH 183 highway project was resumed due to project design changes. In accordance with 36 CFR 800, TxDOT personnel conducted another cultural resources survey to identify properties potentially eligible for listing in the NRHP. Twenty-six additional pre-1964 sites to be 50 years of age or older at the time of letting were identified within the APE which is 150 ft from either side of the revised proposed ROW. The survey concluded that none of the 26 properties are eligible for inclusion in the NRHP register. THC concurrence on the findings was received on August 29, 2005 (see **Attachment C**).

##### Trinity Parkway Environmental Impact Statement (FHWA EIS)

In 2013, during preparation of the EIS for the Trinity Parkway roadway project, consultation in accordance with 36 CFR 800 was completed to determine eligibility of the Dallas Floodway for listing in the NRHP. Per letter dated February 27, 2013, FHWA determined that the Dallas Floodway is eligible under Criterion A at the local level of significance in the area of Community Planning and Development as an infrastructure system for its contribution to the physical growth and development of the City of Dallas. THC concurred with this determination on March 26, 2013. Both letters are included **Attachment C** for reference.

##### *SH 183 Bridge Over the Elm Fork of the Trinity River (USACE SEA)*

The proposed action traverses the Dallas Floodway and its engineering components, including the levees (Northwest and East Levees), overbank, and diversion channel of the Elm Fork of the Trinity River. The proposed action includes the construction of new bridge structures to replace the current SH 183 bridges over the floodway and its levees. The following is a summary of the anticipated modifications and mitigations to the Dallas Floodway and its levees from the proposed action in relation to the eligible resource:

Proposed Modifications directly adjacent to and within the Dallas Floodway:

- Construction of reinforced concrete drilled shafts to support bridge pier columns and overhead sign foundations for the proposed bridges;
- Construction of reinforced concrete drilled shafts to support relocated Oncon overhead electric transmission towers adjacent to the Northwest and East levees to provide horizontal and vertical clearances between proposed bridges and transmission lines;
- Realignment of existing levee maintenance roads under proposed bridges from levee top to landside toe to maintain 15-ft minimum vertical clearance and/or avoid substructures of proposed bridges;
- Construction of new levee top maintenance roads to connect to existing levee top maintenance roads that previously terminated due to lack of vertical clearance under existing structures;
- Construction of concrete riprap under proposed bridges for slope protection on levee slopes (riverside and landside);
- Relocation of billboards within floodway;
- Construction of temporary and permanent erosion control measures;
- Construction of hydraulic mitigation measures including an East Levee slope adjustment to 4:1, an earthen berm parallel to the new bridge and overbank excavation under the bridge; and,
- Removal of existing bridge structures for SH 183 across the Dallas Floodway and subsequent restoration of the East Levee template where the removal of the bridge structure results in localized gaps or swales.

Temporary Modifications that may be requested to facilitate construction within the Dallas Floodway:

- Construction of temporary earthen berms to support equipment for construction of drilled shafts on levee slopes;
- Construction of temporary earth crane pads for lifting bridge girders and related operations;
- Construction of temporary bridge(s) to facilitate maintenance of traffic through construction;
- Construction of temporary shoring towers for the SH 183 bridge construction;
- Construction of temporary bridge(s) over the Elm Fork Trinity River Channel for moving equipment within the floodway during construction of the proposed bridges; and,
- Construction of temporary access roads into the Dallas Floodway.

Determination of Effects

The Criteria of Effect and the Criteria of Adverse Effect were applied to the Dallas Floodway, its levees, overbank and diversion channel in the area traversed by the proposed action. TxDOT determined that construction of these bridges would result in no adverse effect to the Dallas Floodway.

The Dallas Floodway was originally envisioned primarily as a utilitarian system to function for flood control. The floodway also was intended, secondarily, to be an

integrated component of a broader community plan for the development of the City of Dallas. The original vision for the Dallas Floodway included construction of the necessary infrastructure to allow development outside of the levees, as well as recreational spaces, transportation facilities (including road and rail), and a civic center inside the levees. New construction of such facilities within the floodway would represent the realization of the original and continuing community planning for the area, and would not meaningfully contradict the resource's setting, location, design, feeling, and association under Criterion A.

While the floodway contributed to the City's development, it has undergone numerous alterations and modifications since the closing of its period of significance in 1959, impairing its integrity of materials and workmanship. As per THC's letter of December 30, 2011 in reference to the Trinity Parkway Project, infrastructure properties need only retain integrity of location, design, feeling, and association to be eligible under Criterion A, and modern intrusions to the resource setting are expected in an urban area.

Only a small portion of the floodway and its levees would be impacted by the construction of the SH 183 bridges, which would not substantially hinder the functionality of the floodway system. Given the scale of the floodway, construction of the bridge structures would not result in a reduction of the width of the floodway overbank and its ability to channelize flood waters. No other eligible components of the floodway system, such as pump stations, sumps, sluices, or outlet gates, are located in the segment to be crossed by the SH 183 bridges.

The construction of a transportation facility within the floodway is in keeping with the original design of the floodway as an integrated multipurpose, floodwater conveyance, recreation, and transportation system. The floodway would retain its existing aspects of integrity of location, design, feeling, and association, and its historical significance. As such, the construction of the SH 183 bridges would have no adverse effect to the Dallas Floodway or to any of its components.

### Conclusion

The proposed action would not result in an adverse effect to the functionality; to the aspects of integrity of location, design, feeling, and association; and to the historical significance of the Dallas Floodway. Based on the significance of the resource, its intended function, its current integrity, and recent projects that have undergone review by THC for effect to historic resources, TxDOT determined that the proposed action would result in no adverse effect to the Dallas Floodway or the Northwest Levee.

### *Archeological Resources*

THC concurred with TxDOT's recommendation of no further work recommended on May 8, 2003. TxDOT Cultural Resources Management reviewed the additional ROW assessed during the 2012 re-evaluation and determined that additional investigations were not warranted and included the SH 183 project on the monthly "no survey list." In a memorandum dated August 9, 2006, TxDOT determined that these projects, including SH 183, did not warrant archeological survey. Concurrence coordination with THC was completed on August 11, 2006.

If cultural materials are encountered during the construction, work would stop in that area and the USACE Fort Worth District would be notified. Work would not continue until the proper investigations have been carried out after consultation with the USACE.

#### 4.8 Recreation

##### 4.8.1 No Action

The No Action alternative would not result in impacts to recreational usage because no construction activities would occur.

##### 4.8.2 Proposed Action

Temporary impacts are anticipated to the Trinity River Greenbelt Park during the time of construction of the proposed project; however, recreation would not be impacted by the proposed project as no recreational activity occurs in this section of the park system. Recreational activities occur one to two miles south of the study area at River Hills Park and Trinity View Park. Section 4(f) (U.S. DOT Act of 1966), which protects recreational areas, wildlife waterfowl refuge lands; and Section 6(f) [Land and Water Conservation Fund Act (LWCF) of 1965 (16 USC 4601-4 to 4601-11)], which protects parkland acquired or developed with LWCF are only TxDOT requirements, not USACE requirements, and are being addressed by TxDOT in the SH 183 environmental document prepared by TxDOT and FHWA.

### 5.0 MITIGATION

#### 5.1 Section 404

Adverse impacts to waters of the U.S. would be avoided and minimized to the extent practicable, and pre-construction contours would be restored in areas of temporary impacts. The need for compensatory mitigation for adverse impacts to waters of the U.S. is not necessary because the impacts can be considered minimal both individually and cumulatively from a Section 404 standpoint.

#### 5.2 Vegetation Mitigation

In accordance with EO 13112 on Invasive Species and the Executive Memorandum on Beneficial Landscaping, seeding and replanting with TxDOT approved seeding specifications that is in compliance with EO 13112 would be done where possible.

The USACE does not require woodland mitigation for Section 408 actions, unless impacts occur with Section 404 jurisdictional areas. This action does not require a pre-construction notification or compensatory mitigation under Section 404.

## 6.0 CUMULATIVE IMPACTS

### *Study Area*

The study area for the cumulative impacts analysis encompasses the SH 183 crossing at the Elm Fork Trinity River (between Grauwyler Rd. and Regal Row), and includes the adjacent vicinity of the Dallas Floodway and adjacent undeveloped, manufacturing, and commercial properties.

### *Past, Present and Reasonably Foreseeable Projects*

Past projects would include the USACE flood control projects associated with the Elm Fork Trinity River and commercial development adjacent and near the study area. Several proposed and on-going projects are included within the larger Trinity River Corridor Project. The primary component is flood risk reduction measures, but it also includes recreation, environmental restoration, and many major transportation projects.

The following summarizes several proposed or on-going projects within the Trinity River Corridor in the vicinity of the SH 183 Bridge crossing.

### *Balanced Vision Plan*

The Balanced Vision Plan (BVP) began in May 2002 and allowed for an independent study of the Trinity River Corridor Project to be conducted to review past projects and recommend an urban design vision that would offer an appropriate balance to include: flood protection, ecosystem restoration, recreation, transportation and community development. The study focus, called the “Trinity River Corridor”, includes the Trinity River floodway, the floodplain area downstream from the levees and the residential and commercial areas adjacent to the Trinity River and extending approximately one mile on either side. Implementation of the BVP provides assurance that the investments Dallas makes in and around the Trinity River Corridor are coordinated and successful in strengthening and revitalizing this area.

### *Dallas Floodway Project & Feasibility Study*

In 1990, the USACE in cooperation with the NCTCOG and 14 local governments in the region initiated the Upper Trinity River Feasibility Study as authorized by Congress. The purpose of this overall basin-wide study is to identify and carry forward potential projects to address flood damage reduction, environmental restoration, and recreation throughout the corridor. The Dallas Floodway Feasibility Study is one of those potential projects and a subset of the basin-wide Upper Trinity River Feasibility Study. The City of Dallas established their specific participation in the study for the Dallas Floodway in June 1996. The Dallas Floodway Project was further authorized by Section 5141 of Water Resources Development Act (WRDA) 2007 to construct the project if determined technically sound and environmentally acceptable by the Secretary of the Army. The project would include flood control, recreation and ecosystem restoration features within the floodway as defined in the City of Dallas’ BVP.

The Draft Feasibility Report and Environmental Impact Statement are currently undergoing internal and sponsor reviews, however a draft recommendation for Flood

Risk Reduction has been made to raise the low spots of the East Levee to increase flood conveyance to 277,000 cubic feet per second. A Record of Decision on the Feasibility Study is expected in late 2014.

#### Upper Trinity River Hydrologic and Hydraulic Model Update

The USACE is currently updating the hydrology and hydraulic models for the Upper Trinity River including the model for the CDC permit. The future hydrology will be looking at land use in 2060. The USACE is adding all existing projects and those with CDC and/or 404 permits (constructed or not).

#### TRA Sewer Project

The Trinity River Authority (TRA) Sewer project consists of a new 108 inch diameter sewer pipe installed approximately 50 feet to the east of the existing 30 inch reuse and 90 inch sewer lines running parallel with the Northwest Levee. This project was coordinated with the USACE and was expected to begin construction in late 2013.

#### Irving East Cell Levee Remediation Project

In 2008, the Irving Levees were assigned an "Unacceptable" rating upon the conclusion of an annual inspection by the USACE. To upgrade the system to a "Minimally Acceptable" or "Acceptable" rating, and in turn regain active status and eligibility for post-flood repair (rehabilitation) under Public Law (PL) 84-99, the IFCD is preparing plans for remediation. Remediation plans for the Northwest Levee include restoring the system to the 1974 authorized design height, flattening riverside slopes to 3.5:1 and landside slopes to 3:1, hydraulic mitigation swales, as well as unsuitable material removal and replacement clay cap material in select locations of the levee slopes.

The plans and geotechnical report was submitted to the USACE for review in December 2013. Construction is still to be determined, but it could begin in 2014. Due to existing adequate levee height in the immediate vicinity of the proposed SH 183 Bridge, IFCD is currently electing to withhold any levee improvements immediately under and around the bridge until the ultimate section is constructed.

Present projects would also include the operation and maintenance of the Elm Fork Trinity River by the USACE and the City of Irving. Additionally, the improvements to the Trinity River Park system is on-going adjacent to the study area. No other reasonably foreseeable projects are anticipated within the cumulative impacts study area.

No direct or indirect impacts from the proposed action are anticipated to groundwater or threatened and endangered species. Therefore, groundwater and threatened and endangered species were not included in the discussion of cumulative impacts. Individual and cumulative impacts would be minimal to surface water and wetlands/waters of the U.S., since disturbances would be minimal during construction and impacts to waters of the U.S. would fall within the limits of RGP-12.

## 6.1 Biological Resources

The proposed project would impact approximately 5.1 acres of riparian woodlands. Approximately 3.2 acres on the north side of SH 183 during the construction of the base project improvements and approximately 1.9 acres on the south side of SH 183 during the construction of the additional construction component improvements. Both of these areas would be reseeded with herbaceous vegetation after completion of the construction activities. The existing areas containing herbaceous vegetation would be revegetated with herbaceous species at the end of the construction activities for each phase of the proposed project.

The three Oncor towers would be relocated along the existing maintained Oncor utility corridor. The removal and relocation of the two towers within the proposed project ROW would result in approximately 0.002 acre of vegetation impacts at each new location. The third Oncor tower may be reconstructed at its current location resulting in minimal additional vegetation impacts.

No cumulative impacts are anticipated because vegetation would be restored naturally back to near pre-construction state of maintained herbaceous vegetation and riparian woodlands.

The USACE does not require woodland mitigation for Section 408 actions, unless impacts occur within Section 404 jurisdictional areas. This action does not require a preconstruction notification or compensatory mitigation under Section 404.

## 6.2 Air Quality

As previously stated in **Section 4.6.2**, it is not anticipated that emissions from construction of the proposed project would have any significant impact on air quality in the area considering the temporary and transient nature of construction-related emissions, as well as the mitigation actions to be utilized. Considering past, present, and reasonably foreseeable projects, the incremental piece of the proposed project's construction would not be enough to trigger significant cumulative impacts to air quality.

## 6.3 Cultural Resources

As discussed in **Section 4.7.2**, one resource within the cumulative impacts analysis study area is eligible for inclusion in the NRHP register (Dallas Floodway). As documented in the March 2014 letter of concurrence (**Attachment C**), the proposed action would not result in an adverse effect to the functionality, aspects of integrity, or historical significance of the Dallas Floodway; therefore, no cumulative impacts to cultural resources are anticipated as a result of the proposed project.

## 7.0 FINDINGS AND CONCLUSIONS

No significant impacts to the human environment are identified from the implementation of the Proposed Action. Vegetation impacts would occur to herbaceous and riparian

woodland vegetation. All areas cleared would be revegetated with herbaceous vegetation and returned to pre-existing contours after construction activities are completed. Riparian woodlands impacted by the proposed project would initially be revegetated with herbaceous vegetation. Over time, the woody vegetation would be allowed to grow. However, existing maintenance of woody vegetation within the Dallas Floodway by the cities of Dallas and Irving would limit areas where riparian woodlands would be allowed to return. USACE does not require woodland mitigation for Section 408 actions, unless impacts occur within Section 404 jurisdictional areas. This action does not require a preconstruction notification or compensatory mitigation under Section 404. The proposed project would have no effect to habitat for threatened and endangered species. Impacts to waters of the U.S. would be minimal and fall within the allowable limits of RGP-12.

Taking into account the findings of this section, an EIS would not be necessary. Accordingly, a FONSI was prepared for the selected action.

## 8.0 PUBLIC INVOLVEMENT

### 8.1 Agency Coordination

This section discusses consultation and coordination that will occur during the preparation of this SEA. Copies of agency coordination letters are presented in **Attachment C**. Formal and informal coordination will be conducted with the following agencies:

- State Historic Preservation Office (SHPO),
- U.S. Fish and Wildlife Service (USFWS),
- Environmental Protection Agency (EPA), Region 6 Office
- Texas Parks and Wildlife Department (TPWD),
- Texas Commission on Environmental Quality (TCEQ), Water Quality and Air Quality Divisions
- Comanche Nation
- Kiowa Tribe of Oklahoma
- Wichita Executive Committee
- Federal Aviation Administration

### 8.2 Public Information and Review

In accordance with NEPA, a 30-day review period of the SEA will be provided via a Notice of Availability, posting of the document on the Fort Worth District website [www.swf.usace.army.mil](http://www.swf.usace.army.mil), and a local mail out (**Attachment D**).

## 9.0 REFERENCES

Hayes, Mark. Texas Water Development Board. January 2004. Texas Major River Basins and Sub-Basins over DEM Map. Retrieved January 9, 2013 from <http://www.twdb.state.tx.us/mapping/maps.asp>.

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