**Monarch butterfly.** The monarch butterfly (*Danaus plexippus*) is a federal candidate species. In temperate climates like Texas, monarchs undergo long-distance migration. In the fall, monarchs begin migrating to their respective overwintering sites. This migration can take monarchs distances of over 3,000 km and last for over two months. In early spring, surviving monarchs break diapause and mate at the overwintering sites before dispersing. The same individuals that undertook the initial southward migration begin flying back through the breeding grounds and their offspring start the cycle of generational migration over again. Based on migration data (USFWS, 2021d), the study area is located within the designated migration corridor for the monarch butterfly. It is not likely that the proposed transmission line project will have an effect on migration of monarch butterflies.

**Texas fawnsfoot.** The Texas fawnsfoot (*Truncilla macrodon*) is a candidate species of freshwater mussel that inhabits streams and rivers. The mussel species are endemic to the Guadalupe-San Antonio, Colorado, and Brazos River Basins. Habitat preference is typically in mud, sand, or gravel in moderately sized rivers. The species may be intolerant of impoundments (Howells, 2014). TPWD (2021g) indicates that there were no observations of the species near the study area. Since the transmission line will span creeks and streams, it is unlikely to affect the mussel species.

**Bald eagle.** The bald eagle (*Haliaeetus leucocephalus*) was also federally delisted as a threatened or endangered species. It is listed as a rare species by TPWD. Bald eagles are often found primarily near rivers and large lakes. Their preferred habitat includes tall trees or on cliffs near water. They communally roost and hunt live prey, scavenge, and pirate food from other birds. Bald eagles are likely to nest in the riparian buffer along Chambers Creek. There have been observations of bald eagles in Ellis County (TPWD, 2021g; eBird, 2021).

**Interior least tern.** Interior least terns (*Sterna antillarum*) were federally delisted but remain on TPWD's list of endangered species. Least terns, the smallest of the gull and tern

family, predominantly occupy sand beaches, flats, bays, inlets, lagoons, islands. Inland (more than 50 miles from a coastline), they nest along sand and gravel bars within braided streams, rivers as well as on man-made structures (inland beaches, wastewater treatment plants, gravel mines, etc).

**Alligator snapping turtle.** The alligator snapping turtle (*Macrochelys temminckii*) is a state-listed threatened aquatic reptile. Their preferred habitats include perennial water bodies, rivers, canals, lakes, and ponds near running water. TPWD (2021g) data indicates that alligator snapping turtles have been observed in Ellis County.

**Black rail.** The black rail (*Laterallus jamaicensis*) is a state-listed threatened bird species. The mouse-sized bird is typically black with a short bill. Their preferred habitat includes salt, brackish, and freshwater marshes, pond borders, wet meadows, and grassy swamps. They nest in or along edge of marsh, sometimes on damp ground, but usually on mat of previous years dead grasses. eBird (2021) and TPWD TXNDD (2021g) data show no official observations reported near the study area.

**Louisiana pigtoe.** The Louisiana pigtoe (*Pleurobema riddellii*) is a state-listed threatened freshwater mussel found in small streams and large rivers in slow to moderate current. It inhabits various substrates of clay, mud, sand, and gravel (Randklev et al., 2017). TPWD (2021g) data show some observations reported near the study area.

**Sandbank pocketbook.** The sandbank pocketbook (*Lampsilis satura*) is a state-listed threatened freshwater mussel found in streams and rivers in slow to moderate current in sandy mud to sand and gravel substrate. It prefers littoral habitats such as banks or backwaters or in protected areas along point bars (Randklev et al., 2017). TPWD (2021g) data show some observations reported near the study area.

**Texas heelsplitter.** The Texas heelsplitter (*Potamilus amphichaenus*) is a state-listed threatened freshwater mussel that prefers habitat in small streams and large rivers in standing to slow-flowing water. It is most commonly found in banks, backwaters and

quiet pools in soft substrates such as mud, silt or sand (Randklev et al., 2017). TPWD (2021g) data show some observations reported near the study area.

**Texas horned lizard.** The Texas horned lizard (*Phrynosoma cornutum*) is a state-listed threatened terrestrial reptile. Their preferred habitats include open areas with sparse vegetation, including grass, prairie, cactus, scattered brush, or scrubby trees. They burrow into soil, enter rodent burrows, or hide under rocks when inactive. TPWD (2021g) data indicates that the Texas horned lizard has been observed in or near the study area.

**Trinity pigtoe.** The Trinity pigtoe (*Fusconaia chunii*) is a state-listed threatened freshwater mussel found in a variety of habitats but most common in riffles of streams and creeks. It inhabits various substrates though most often sand, gravel, and cobble (Randklev et al., 2017). TPWD (2021g) data show some observations reported near the study area.

**White-faced ibis.** The white-faced ibis (*Plegadis chihi*) is a state-listed threatened bird species that prefers freshwater marshes, sloughs, and irrigated rice fields as habitat. They nest in marshes, low trees, on the ground in bulrushes or reeds, or on floating mats. eBird (2021) and TPWD (2021g) data show some observations reported near the study area.

**Wood stork.** The wood stork (*Mycteria americana*) is a state-listed threatened, long-legged wading bird with white plumage except for black primaries and secondaries and a short black tail. Their preferred habitat is large tracts of bald cypress (*Taxodium distichum*) or red mangrove (*Rhizophora mangle*). They forage in prairie ponds, flooded pastures or fields, ditches, and other shallow standing water. Their historical range included Texas, but no breeding observations in Texas have been recorded since 1960. (USFWS, 2021d; TPWD, 2021g).

TPWD also protects rare species of greatest conservation need (SGCN) within Texas (TPWD, 2021b). Table 3-12 lists the species of fish and wildlife with the potential to occur within the study area. Conservation efforts during construction activities are recommended to minimize habitat disturbance for these rare species.

**Table 3-12: Rare Fish and Wildlife with Potential for Occurrence within the Study Area**

| Common Name | Scientific Name | Global Ranking on Species Vulnerability | State Ranking on Species Vulnerability |
|---|---|---|---|
| American bumblebee | *Bombus pensylvanicus* | Vulnerable-Apparent secure | Unranked |
| Bald eagle | *Haliaeetus leucocephalus* | Secure | Vulnerable |
| Big brown bat | *Eptesicus fuscus* | Secure | Secure |
| Cave myotis bat | *Myotis velifer* | Apparent secure-Secure | Imperiled-Vulnerable |
| Chestnut-collared longspur | *Calcarius ornatus* | Secure | Vulnerable |
| Common garter snake | *Thamnophis sirtalis* | Secure | Imperiled |
| Eastern box turtle | *Terrapene carolina* | Secure | Vulnerable |
| Eastern red bat | *Lasiurus borealis* | Vulnerable-Apparent secure | Apparent secure |
| Eastern spotted skunk | *Spilogale putorius* | Apparent secure | Critically Imperiled-Vulnerable |
| Franklin's gull | *Leucophaeus pipixcan* | Secure | Imperiled |
| Hoary bat | *Lasiurus cinereus* | Vulnerable-Apparent secure | Apparent secure |
| Katydid | *Amblycorypha uhleri* | Imperiled-Vulnerable | Not applicable |
| Long-tailed weasel | *Mustela frenata* | Secure | Secure |
| Mountain lion | *Puma concolor* | Secure | Imperiled-Vulnerable |
| Muskrat | *Ondatra zibethicus* | Secure | Secure |
| Prairie Skink | *Plestiodon septentrionalis* | Secure | Secure |
| Slender glass lizard | *Ophisaurus attenuatus* | Secure | Vulnerable |
| Southeastern myotis bat | *Myotis austroriparius* | Apparent secure | Vulnerable |
| Southern crawfish frog | *Lithobates areolatus areolatus* | Apparent secure | Vulnerable |
| Strecker's chorus frog | *Pseudacris streckeri* | Secure | Vulnerable |
| Swamp rabbit | *Sylvilagus aquaticus* | Secure | Secure |
| Texas garter snake | *Thamnophis sirtalis annectens* | Secure | Critically imperiled |
| Timber (canebrake) rattlesnake | *Crotalus horridus* | Apparent secure | Apparent secure |
| Tricolored bat | *Perimyotis subflavus* | Imperiled-Vulnerable | Vulnerable-Apparent secure |
| Western box turtle | *Terrapene ornata* | Secure | Vulnerable |

**Table 3-12: Rare Fish and Wildlife with Potential for Occurrence within the Study Area (continued)**

| Common Name | Scientific Name | Global Ranking on Species Vulnerability | State Ranking on Species Vulnerability |
|---|---|---|---|
| Western burrowing owl | *Athene cunicularia hypugaea* | Apparent secure | Imperiled |
| Western chicken turtle | *Deirochelys reticularia miaria* | Secure | Imperiled-Vulnerable |
| Western hog-nosed skunk | *Conepatus leuconotus* | Apparent secure | Apparent secure |
| Woodhouse's toad | *Anaxyrus woodhousii* | Secure | Unranked |

*Source: TPWD (2021e)*

## 3.6 COMMUNITY VALUES AND COMMUNITY RESOURCES

The term "community values" is included as a factor for the consideration of transmission line certification under §37.056(c)(4)(A)-(D) of the Texas Utilities Code. This term may be interpreted as a shared appreciation of an area or other natural or human resource by a national, regional, or local community. The PUCT's CCN application requires consideration of values and resources important to a local community, such as an assessment of the following:

- Habitable structures within 500 feet of the centerline of the proposed project;
- Amplitude modulation (AM), frequency modulation (FM), microwave, and other electronic installations in the area;
- FAA-registered airstrips, private airstrips, and heliports located in the area;
- Irrigated pasture or croplands utilizing center-pivot or other traveling irrigation systems;
- Input from public participation meeting;
- Approvals or permits required from other governmental agencies;
- Brief description of area traversed; and
- Comments received from community leaders and members of the public.

In addition to the above-listed items, FNI evaluated the proposed project for community resources that may be of importance to a community as a whole. FNI has defined the term "community resources" as an area or other natural or human resource recognized by a national,

regional, or local community. Examples of a community resource would be a park or recreational area, historical and archaeological sites, or a scenic vista. As previously discussed, FNI mailed consultation letters to various local elected and appointed officials and hosted a public participation meeting to identify and collect information regarding community values and community resources. The above-listed community values and community resources are discussed in the appropriate sections of this document.

## 3.7 LAND USE

### 3.7.1 Urban and Residential Areas

The study area is situated approximately 1.3 miles to the northwest of Italy in Ellis County, Texas. It is located in a more rural area and consists of rural residential and agricultural land uses, utility corridors and facilities, and undeveloped lands. Hunting, fishing, and other types of outdoor recreation may be integrated with these primary uses.

Additional commercial and residential development is concentrated along the IH-35E and US-77 corridors between the City of Italy and the town of Forreston on the east side of the study area. However, the study area is not located within the city limits or extraterritorial jurisdiction of any local municipality. The major roadway corridors in the study area include IH-35E, US-77, FM 876, and several small county roads. FNI solicited information regarding environmental and/or land use constraints within the study area from the City of Italy, Ellis County, Ellis and Waxahachie ISDs, and various state and federal regulatory agencies. Consultation letters and agency responses are available for review in Appendix A.

Several of these responses are noted within the discussion in Section 3.0 and/or Section 7.0 of this report relevant to resource-specific comments made by the agency (e.g., THC regarding cultural resources, USACE regarding Clean Water Act permitting, and TPWD and USFWS regarding wildlife).

For responses that addressed potential land use constraints in general, the following list provides a summary of each:

- The DoD indicated that the informal review of the transmission line project as proposed in Ellis County will have minimal impact on military operations in the area;
- NCTCOG provided a review of the study area using NCTCOG's Economic and Environmental Benefits of Stewardship tool to estimate return on investment of implementing environmental stewardship to reduce the effects of transportation projects and NCTCOG's Regional Ecosystem Framework tool to provide information of relative ecological importance of the Dallas/Fort Worth region at the subwatershed level;
- FEMA Region VI replied indicating no comment regarding land use or environmental constraints and recommended coordination with the local floodplain manager;
- The FAA Southwest Region provided no comment regarding land use or environmental constraints, but recommended coordination with the Obstruction Evaluation Group; and
- Italy ISD replied indicating they were not aware of any other projects or environmental constraints in the study area with the exception of the Oystercatcher Solar facility.

### 3.7.2 Recreational Areas

A review of federal, state, and local websites and maps, as well as a reconnaissance survey, identified no recreational facilities within the study area. No conservation easements, wildlife management areas, or wildlife management associations were identified in the study area (USGS, 2016; USGS, 2021a).

There are no TPWD parks located within the study area (TPWD, 2021h). In addition, a review of the National Park Service (NPS) website indicated that no NPS parks, wild and scenic rivers, national monuments, national recreation areas, national preserves, national battlefields, or other national historic sites open to the public are located within the study area (NPS, 2021).

### 3.7.3 Agriculture

Agriculture is an important segment of the economy for Ellis County, as indicated by representative agricultural statistics from the NASS. The NASS 2017 Census of Agriculture identified corn for grain as the top primary crop by acreage area in Ellis County. In terms of statewide significance, Ellis County crop sales or livestock inventory do not rank substantially among other Texas counties for those categories (NASS, 2017). Ellis County agricultural data is provided in Table 3-13. No center-pivot irrigation systems are present within the study area. Several parcels within the study area appear to be used for production of hay and other crops.

**Table 3-13: Agricultural Data for Ellis County**

| Statistical Category | Ellis County Data |
|---|---|
| **Market Value of Products Sold (in $ millions)** | |
| Crop Sales ($1,000) | $53.5 million |
| Livestock Sales ($1,000) | $19.7 million |
| Total Sales | $73.1 million |
| **Top Crop Types and Livestock Inventory** | |
| 1st Crop Type and Acreage | Corn for grain – 65,161 acres |
| 2nd Crop Type and Acreage | Forage (hay/haylage), all – 62,262 acres |
| 3rd Crop Type and Acreage | Cotton, all – 24,348 acres |
| 4th Crop Type and Acreage | Wheat for grain, all – 21,375 acres |
| 5th Crop Type and Acreage | Soybeans for beans – 514 acres |
| 1st Livestock Type and Number of Animals | Cattle and calves – 50,563 |
| 2nd Livestock Type and Number of Animals | Layers – 9,520 |
| 3rd Livestock Type and Number of Animals | Sheep and lambs – 3,958 |
| 4th Livestock Type and Number of Animals | Goats – 3,608 |

*Source: NASS (2017).*

### 3.7.4 Industry

No industrial facilities or oil and natural gas production was observed within the study area during the site reconnaissance. The study area is located in a rural area of Ellis County. Some commercial (e.g., retail stores, restaurants, gas stations, nurseries, hotels) are located along the IH-35E and US-77 corridors on the far east side of the study area.

### 3.7.5 Aesthetics

Aesthetics is included as a factor for consideration in the evaluation of transmission facilities in Section 37.056(c)(4)(A)-(D) of the Texas Utilities Code. For the purpose of this study, the term aesthetics is utilized by FNI to address the subjective perception of natural beauty in a landscape. This evaluation attempts to define and measure the study area's scenic qualities.

Consideration of the visual environment includes a determination of aesthetic values (where the major potential effect of a project on the resource is considered visual) and recreational values (where the location of a transmission line could potentially affect the scenic enjoyment of the area).

FNI considered the following aesthetic values in this study that combine to give an area its aesthetic identity:

- Topographical variation (hills, valleys, etc.);
- Prominence of water in the landscape (rivers, lakes, etc.);
- Vegetation variety (woodlands, prairies);
- Diversity of scenic elements;
- Degree of human development or alteration; and
- Overall uniqueness of the scenic environment compared with the larger region.

The study area exhibits a generally medium to high degree of aesthetic quality for the region. The land in the study area falls within the Texas Blackland Prairies Ecological Region. This region is characterized by deep, fertile black soil, tall-growing grasses, the landscape is gently rolling to nearly level, and elevations range from 450 to 650 feet above sea level (TPWD, 2021f). As

previously discussed in Section 3.4.1, Chambers Creek, its tributaries, and riparian buffer are located within the study area. However, Chambers Creek is not listed by the TWDB in their Ecologically Significant Stream Segments list (TWDB, 2021a).

A review of the NPS website identified no wild and scenic rivers, historical trails, national parks, national monuments, or national battlefields within the study area (NPS, 2021). A review of the National Scenic Byways Program and the America's Byways listing revealed no designated Scenic Byways in the study area (Federal Highway Administration, 2021).

### 3.7.6 Transportation and Aviation

The existing transportation system within the study area includes two major highways, IH-35E and US-77, a TxDOT-maintained road FM 876, and local primary and secondary roads. Coordination with TxDOT Dallas District identified no proposed new construction or expansion of existing facilities within or proximal to the study area.

No active railroads are present in the study area. Part of an inactive segment of the Union Pacific Railroad remains on the eastern edge of the study area and crosses Chambers Creek. The RRC indicated that there are no RRC-owned properties within the study area and no known projects are planned for the study area.

FNI conducted a review of the following resources to identify airstrips in the vicinity of the study area: FAA Southwest Region Airport Directory (FAA, 2021), TxDOT Airport Directory (TxDOT, 2021), airport runway and facilities data from AirNav, LLC (AirNav, 2021), recent aerial photography, and field reconnaissance. No FAA-registered public or military airfields of any type were identified within 20,000 feet of the study area. No private airstrips were identified within 10,000 feet of the study area. No heliports were identified within 5,000 feet of the study area. No proposed aviation projects were identified during the information gathering process. The nearest aviation facility, George P Shanks Airport, is a private airfield located approximately 16,000 feet to the north of the study area.

### 3.7.7 Communication Towers

The review of the Federal Communications Commission (2021) database and field observations identified one registered communication tower within the study area. The review included cellular phone communication towers, microwave towers, AM transmitters, FM transmitters, and other similar electronic installations. Brazos Electric Power Cooperative, LLC has a 75.3-foot communications antenna at a station located along Bill Lewis Road on the northern edge of the study area along the existing Brazos 69 kV transmission line that crosses the study area. No AM or FM transmitters were identified within the study area.

### 3.7.8 Oil and Natural Gas Wells

Ellis County has been producing oil and natural gas for approximately 30 years with limited oil recovery for the last 15 years (Texas Drilling, 2021). The Barnett Shale is the major hydrocarbon producing geologic formation in North Texas. It is one of the largest onshore natural gas fields in the United States, covering approximately 5,000 square miles (RRC, 2021). According to the RRC (2021), there are no oil or natural gas wells or RRC-regulated pipelines located within the study area.

## 3.8 CULTURAL RESOURCES

A records examination for known archaeological and historical sites was made to help determine the likelihood of finding historic and prehistoric archaeological sites along the potential transmission line routes in the study area. This research was conducted utilizing the THC Texas Historic Sites Atlas and the THC Texas Archeological Sites Atlas (TASA) (THC, 2021b). The search of the Texas Historic Sites Atlas sought published and unpublished data on cultural resources sites listed on or determined eligible for listing in the National Register of Historic Places (NRHP), as well as for Recorded Texas Historical Landmarks (RTHLs), Official Texas Historical Markers (OTHMs), and neighborhood survey sites and cemeteries. TASA includes previously recorded archaeological sites, including any archaeological sites listed in the NRHP.

### 3.8.1 Cultural Background

The study area and Ellis County is located in the Texas Blackland Prairies, which is in the Region C Planning Group of Texas (TPWD, 2021f). The cultural history of the Texas Blackland Prairies is divided into four main prehistoric periods and one historic period: the Paleoindian Period (circa 10,000 to 6,500 years before Christ [B.C.]), the Archaic Period (6,500 B.C. to 700 *anno domino* [A.D.]), the Late Prehistoric Period (700 A.D. to 1,500 A.D.), and the Historic Period (post 1,500 A.D.). Each period is defined on the basis of unique material culture assemblages observed in the archaeological record (Prikryl, 1990). The following sections provide a brief overview of each period.

#### 3.8.1.1 Paleoindian Period (circa 10,000 to 6,500 years B.C.)

The Paleoindian Period is the earliest known cultural sequent to occur within the Texas Blackland Prairies and was characterized by groups of highly mobile hunter-gatherers who hunted mega-fauna such as mammoth, bison, and horse. Evidence suggests additional diverse resources may have also been exploited, including turtle, deer, rabbit, and raccoon, as well as a wider range of plants.

The defining characteristics of Paleoindian lithic assemblages include lanceolate points with straight or concave bases, scrapers, and notched stone tools such as the *Clovis, Folsom, San Patrice-like, Plainview,* and *Scottsbluff* point styles (Prikryl, 1990). These projectile points were often made of non-local lithic materials. The use of non-local lithic resources suggests these groups were highly mobile and may have engaged in long-distance trade networks (Collins, 1995; Prewitt, 1981). Social organization in the Paleoindian Period consisted of loosely structured bands of mobile groups including multiple nuclear families (Fields et al., 2005).

#### 3.8.1.2 Archaic Period (6,500 B.C. to 700 A.D.)

The Archaic Period exhibits evidence of a diversification of a hunting and gathering economy with an increased variety of artifacts suggesting a shift in culture and technology to aid in the exploitation of increasingly diverse resources. These changes appear to have arisen in response

to climate changes that were occurring as a result of decreasing continental glaciation and increasingly warmer and drier conditions (Prikryl, 1990).

Another indication of environmental stress brought on by increasingly warm and arid conditions is the increased presence of occupation sites in more diverse environmental settings, with concomitant utilization of smaller mammals such as deer and rabbit, and diverse plant foods. The Archaic Period also saw reduced mobility of hunter-gatherer populations and greater exploitation of seasonal resources. Resultant changes in lithic technologies included a shift from lanceolate-shaped points to stemmed and barbed dart points, as well as an increased use of groundstone tools for processing plants (Prikryl, 1990).

#### 3.8.1.3 Late Prehistoric Period (700 A.D. to 1,500 A.D.)

The Late Prehistoric Period began with the introduction of the bow and arrow, corner-notched arrow points, the appearance of coarse-tempered, cord-marked pottery, and the expansion of horticulture (Prikryl, 1990). This period exhibits evidence of an increased reliance on agriculture and increased permanent settlements; however, a generally mobile lifestyle is still evident despite the presence of more permanent settlements.

After the arrival of European and American immigrants during the latter part of this Period, a time of early Spanish missions and French explorations correlated with Native American groups remaining or moving into the region. Native American groups included Tonkawa, Apache, Comanche, Wichita, Kitsai (Kichai), Yojaune, Caddo, Delaware, and Kickapoo (Prikryl, 1993). Trade items such as glass beads, ceramics, gun parts, and metal arrow points reflect the diverse cultural groups occupying the same region.

#### 3.8.1.4 Historic Period (post 1,500 A.D.)

The Historic Period of north-central Texas began with the exploration and settlement of Spanish conquistadors, which first explored the region in the early 1500s. French explorers and fur traders from Louisiana began to occupy the area in the early 1700s. In 1821, Mexico gained its independence from Spain, and it was at this time that the initial period of Anglo-American

immigration and settlement began across the region. During Mexico's control over Texas, there was very little settlement in Ellis County (Goodlett, 1972).

During its time as the Republic of Texas, prior to annexation as a state by the United States in 1845, settlement in north-central Texas occurred along major waterways, such as the Trinity River. As a result of the Civil War, the arrival of rail transportation was delayed until well into the Reconstruction Period. Following the arrival of railroad corridors throughout the region, Dallas and Fort Worth, Texas continued to expand into one of the largest metropolitan areas in the nation (Adams, 1980).

Ellis County was established in 1849 from Navarro County, organized in February of the following year. In 1850, Waxahachie became the county seat. The county was probably named for Richard Ellis, who was President of the Texas State Convention of 1836. The arrival of the railroad in 1873 increased growth in both population and industry. During the early part of this century, Ellis County has profited from cotton production in north Texas (Hardy·Heck·Moore, Inc., 1985).

### 3.8.2 Records Review

#### 3.8.2.1 Previous Investigations

Review of the TASA data (THC, 2021b) revealed one previous survey. Several additional previous cultural resources investigations have been conducted in and around Ellis County. Some of the earliest work was conducted in the 1960s by C.K. Chandler, an avocational archeologist who focused on documentation and investigation of sites throughout the state.

According to correspondence from TARL (2021), at least three archaeological surveys have been conducted within or crossing the study area. TxDOT, previously the State Department of Highways and Public Transportation, conducted a survey of an extension of FM 876 in 1976 (Weir, 1976). No archeological sites were identified during that survey. Farmers Home Administration sponsored a survey conducted by AR Consultants, Inc. along a portion of Witten Road in 1991 (Skinner and Young, 1991). No archaeological sites were identified during that survey. Surveys were conducted by Southern Methodist University from 1990 to 1998 for the proposed

Superconducting Super Collider project, which was partially located within the study area. None of the documented archaeological sites from those surveys were located within the study area.

The TASA does not show all sites that may exist within an area, but only those sites that have been formally recorded (THC, 2021b). Due to the lack of systematic surveys, it is possible unknown archaeological sites could be present, but not yet documented in the study area. Generally, an intensive archaeological survey is needed to identify such resources. In order to provide an initial assessment of prehistoric site sensitivity, a predictive model was developed based on archaeological site distribution patterns, soils, geomorphology, and available water sources. From these data, the study area was divided into high, moderate, and low probability areas.

High Probability Areas (HPAs) possess the greatest potential for containing cultural resource sites. Site integrity is presumed to be highest in the HPAs. HPAs for prehistoric sites include areas with deep soils and in proximity to natural water sources. Such areas include interfluve summits, shoulder slopes, toe slopes, alluvial and colluvial fans adjacent to river valleys, natural levees, alluvial terraces, floodplain rises, upland edges adjacent to streams, stream confluences, springs, and floodplains.

Historic sites tend to be located near historic transportation routes, streams, springs, wells, and windmills, and commonly consist of aboveground structures, structural elements, or may only be represented by buried (archaeological) historic artifacts. Historic sites generally exhibit greater surface visibility because either they are not buried as deeply as prehistoric sites, or they are not buried at all. Historic site types in the region include missions, town sites, farmsteads, ranches, cemeteries, stone walls, mills, lime kilns, and industrial sites. Identification of HPAs for historic sites will depend on the results of archival and historic research specific to the ROW and would be conducted prior to the commencement of fieldwork.

Moderate Probability Areas may contain archaeological remains, but their presence is considered to be less likely, for reasons of distance to water, topography, slope, or soils. Moderate

Probability Areas in this region consist of upland prairies, areas further away from natural water sources, and areas close to water sources, but with slopes greater than 20 percent .

Low Probability Areas are areas in which archaeological sites are unlikely to be present, or in which they would be greatly disturbed. In general, Low Probability Areas would include areas characterized by steep slopes, deflated or eroded surfaces, or modern construction.

#### 3.8.2.2 2021 Records Review

A literature and records review of data from the TASA (THC, 2021b) was conducted to locate previously recorded historic resources within the study area. Resources include historic properties listed in, or eligible for listing in, the NRHP, RTHLs, Historic Texas Cemeteries, and OTHMs. The THC and Texas Archeological Research Laboratory were also consulted for published and unpublished data regarding historic cemetery locations, as well as historic properties listed on or determined eligible for listing on the NRHP.

Historic properties are listed in or determined eligible for listing on the NRHP. Listing on the NRHP provides national recognition of a property's historical or architectural significance and denotes that it is worthy of preservation. Buildings, sites, objects, structures, and districts are eligible for this designation if they are at least 50 years old and meet established criteria. If potentially eligible structures do exist, a formal eligibility evaluation by a qualified architectural historian may be necessary. The designation of RTHL is awarded by the THC to buildings and structures at least 50 years old that are deemed worthy of preservation for their historical and architectural associations. Designation of RTHL is a legal designation and comes with a measure of protection for buildings or structures to which they are prescribed and is the highest honor the state can bestow on a historic resource. The designation of Historic Texas Cemetery is also awarded by the THC to some cemeteries in recognition of the historical significance of the cemetery. An OTHM is educational in nature and does not carry legal restriction on the use of the property or site, although the THC must be notified if the marker is ever to be relocated.

The records review revealed three historical markers (18360, 18603, and 7088) and two archaeological sites (41EL23 and 41EL24) within the study area. The first historical marker (Atlas

Number 5507018603) documents the Sims Family of Ellis County and was installed in 2018. The Sims Family was one of the first families to settle in Ellis County along Chambers Creek. The second historical marker (Atlas Number 5139007088) documents the origins for the name of Chambers Creek and was installed in 1936. The Creek is named in honor of Thomas Jefferson Chambers to whom the first land grant within present day Ellis County was made in 1834 by the Mexican government. The marker is within a roadside picnic area. The third historical marker (Atlas Number 5507018360) documents the Shawnee Cattle Trail and was installed in 2016. In use from approximately 1850 to 1873, the Shawnee Cattle Trail was the first and farthest east of the four great cattle-driving trails from Texas to northern markets. All three historical markers are subject markers and do not have a RTHL designation (THC, 2021b).

The first archaeological site (41EL23) is located on the north side of Chambers Creek approximately 100 yards from Chambers Creek and approximately 100 yards east of a gravel pit. The archeological site is characterized as a prehistoric campsite based on the artifacts reported when the site was originally documented in 1969 by C.K. Chandler. Most of the materials collected appear to be flakes, cores, or other miscellaneous artifacts. The second archaeological site (41EL24) is located on the north side of Bee Creek and south of a small lateral drainage area. The archeological site is also characterized as a prehistoric campsite based on the artifacts reported when the site was originally documented in 1969 by C.K. Chandler. Most of the materials collected appear to be manos, metates, and some dart point fragments. A potential small anvil stone was also documented at the site. No official determination was made for either of the two sites and no additional work appears to have been recommended (TARL, 2021; THC, 2021b).

Four historical cemeteries are located within the study area. The first cemetery (EL-C012) is known as Forreston Cemetery. The cemetery is located where Lumkins Road ends, just to the east of US-77. The age of the cemetery is not listed. The second cemetery (EL-C088) is known as Hardeman Family Cemetery. The cemetery is located approximately 0.26 miles to the east of the intersection of US-77 and Kinfolk Lane. The Hardeman Family Cemetery includes burials from 1857 to 1910. The third cemetery (EL-C084) is known as the Clay-Bell Cemetery. The cemetery is

located approximately 0.27 miles to the south of the intersection of Iola Lane and L R Campbell Road. The Clay-Bell Cemetery includes burials from 1870 to 2004. The fourth cemetery (EL-C079) is known as High Springs Cemetery. The cemetery is located approximately 0.66 miles to the north of the Bee Creek crossing at Witten Road. The High Springs Cemetery dates back to 1859 (TARL, 2021; THC, 2021b).

No other historic properties or OTHMs were documented within the study area.

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# 4.0 IDENTIFICATION OF PRELIMINARY ALTERNATIVE ROUTE LINKS

Upon completion of the various data collection activities and constraints mapping process, the next step for the proposed project was to identify preliminary alternative routes to connect the proposed Oncor Old Country Switch to the proposed Oystercatcher Substation. Potential alternative routes were plotted on recent aerial photography (USDA, 2020b), based on the findings of the reconnaissance surveys, the findings from the various data collection activities, the environmental and land use constraints map, and property boundary maps. The initial property boundary maps utilized to locate apparent property boundaries consisted of GIS data from the Ellis County appraisal district. Digital gas and petroleum pipeline data obtained from the RRC (2021) were used to identify pipeline corridors and other oil and gas facilities. Where practical, FNI verified the location of pipeline corridors by reviewing aerial photography or field reconnaissance but did not alter the RRC digital data. The environmental and land use constraints map (Figure 3-1) shows the locations of pipelines, based on the data as received from the RRC. GIS data of existing electric transmission line corridors were obtained and verified by locating towers and/or poles through field reconnaissance and use of high-resolution aerial photography.

In the development of preliminary alternatives, FNI considered existing corridors (e.g., existing utility ROW, existing transmission lines, public roadways) and apparent property and land use boundaries, in accordance with the provisions of PUCT Substantive Rules Section 25.101. Aerial photographs (USDA, 2020b) revealed a variety of potential topographic constraints that were also considered.

Oncor defined a specific point of origin from each terminal station from which each terminal link would connect. The point of origin accounts for the layout of each station, which may contain connecting points from other proposed facilities in the study area. For example, all preliminary route links for the proposed project connect to the south side of the proposed Oncor Old Country Switch and the north side of the proposed Oystercatcher Substation. A link is defined as a route segment that progresses in a generally forward progressing direction, prior to diverging, or

branching, in at least two different directions, or new links. Each branch vertex is defined as a node.

Constraints, such as water wells, transportation corridors (e.g., IH-35E, US-77, and FM 876), SCS reservoirs in the study area, and Chambers Creek, influenced the development of preliminary alternative route links. In many instances, property or land use boundaries are not readily apparent, and to parallel said features may require a series of angles and turns that would only increase the length of a route across the landscape. Two existing transmission line corridors were identified that provided routing opportunities. Where possible, FNI verified the location of constraints by reviewing aerial photography (USDA, 2020b) and observations during field reconnaissance.

Ultimately, FNI identified numerous preliminary alternative route links that, when combined, form an assortment of preliminary alternative routes to connect the project endpoints. FNI identified 61 alternative route links forming 157 preliminary alternative routes from the proposed Oystercatcher Substation to the proposed Oncor Old Country Switch. These preliminary alternative routes are described below.

While developing preliminary links, FNI considered alternative route links relative to the FM 876 corridor that generally runs from north to south through the center of the study area, while minimizing parallel impacts to Chambers Creek and its tributaries, floodplain, and riparian buffer. Links B through S provide routing alternatives that are located predominantly to the west of the FM 876 corridor. This western network of links considered the existing Brazos Electric Cooperative 69 kV transmission line corridor, Bell Branch and Witten Roads and Iola Lane, Bell Branch Ranch Lake, SCS Site 83 Reservoir, SCS Site 84 Reservoir, SCS Site 86 Reservoir, and varying terrain constraints of Chambers Creek. Links T through GGG provide routing alternatives that are located predominantly to the east of the FM 876 corridor. This eastern network of links considered two existing transmission line corridors, the existing Brazos Electric Cooperative 69 kV transmission line corridor and the existing Oncor Venus Switch – Navarro 345 kV transmission line, Anderson Road, SCS Site 86 Reservoir, and varying terrain constraints of Chambers Creek.

Routing of these preliminary route links had to consider sufficient spacing to construct spans across FM 876, Chambers Creek, and other physical constraints.

Oncor presented the preliminary links at the public participation meeting, as further discussed in Section 5.0. The figures located in Appendix B depict the preliminary links that were presented at the public participation meeting. After the public participation meeting, FNI made modifications to the preliminary route links after considering updated property data, guidance from Oncor, additional field investigations, and comments received from the public participation meeting. Section 6.0 provides a detailed description of the new links and modifications to the preliminary route links that were made following the public participation meeting.

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# 5.0 PUBLIC INVOLVEMENT PROGRAM

The various data collection activities utilized in the development of a constraints map and in the ultimate selection of preliminary alternative route links were presented at the public participation meeting. The public participation meeting was held on May 20, 2021, at the City of Italy Community Center. In consideration of comments received and information provided by landowners attending the meeting, FNI considered modifications to preliminary alternative route links. The figures found in Appendix B depict the location of the preliminary alternative route links that were presented at the public participation meeting.

Due to COVID-19 public health and safety guidelines, FNI also provided a virtual public participation website to solicit feedback from residents, landowners, public officials, and other interested parties concerning the proposed project, preliminary alternative route links, and the overall transmission line routing process. The virtual website was developed to mirror the in-person public meeting with sections for each information station that included electronic versions of the maps, illustrations, photographs, and/or text explaining each topic. Electronic copies of the public meeting handout packet, questionnaire, and landowner bill of rights were also provided prominently on the virtual public meeting website. Each information section also had a Zoom meeting link to talk directly with a Oncor, FNI, or 7Arrows Land Staff representative.

Six people signed in as attendees at the in-person public participation meeting. One landowner questionnaire was received at the meeting. One questionnaire was submitted via email from the virtual public meeting website. One additional email was received from a landowner that was submitted in lieu of the questionnaire. No questionnaires and/or letters were received via mail after the meeting by either Oncor or FNI.

Results of the completed questionnaire from the public participation meeting indicated that the need for the proposed project had been adequately explained and that the exhibits and explanations of the need for the proposed project were helpful. Likewise, the respondents indicated that the information presented was helpful to them in understanding the proposed project.

The questionnaire requested input concerning transmission line routing issues regarding land use, paralleling existing corridors, and community values/resources. Respondents were asked to rank different factors as the most important consideration of land use, their preference for paralleling existing corridors when considering potential routes for the proposed project, distance to habitable structures, community values, and other resources in order of importance regarding maximizing the distance from the proposed project. With the questionnaires received, the respondents indicated preferences for maximizing the distance from residences, paralleling existing transmission line corridors, and minimizing clearing of trees and vegetation.

The questionnaire also provided space for respondents to include any general comments or remarks. One respondent recommended relocating the preliminary alignment of Link EEE off of the respondent's property to better avoid dwellings and horse pastures and minimize clearing of trees on the property. One respondent recommended relocating the preliminary alignment of Links W, DDD, and EEE to avoid new construction underway on their property and minimize clearing of trees on the property. One respondent recommended selection of an alignment that favored Link T and heading to the east-northeast from the proposed Oystercatcher Substation to better avoid dwellings.

# 6.0 ADDITION/MODIFICATION OF ALTERNATIVE ROUTE LINKS

Based on input, comments, and information received by FNI at the public participation meeting, FNI conducted desktop reviews and referenced previous reconnaissance surveys to evaluate and identify the input, comments, and information received at the public participation meeting as well as supplement prior work. The desktop reviews were also used to determine whether the information from the public participation meeting or other sources would lead to modifications to the existing preliminary alternative route links and/or the identification of new route links that were not presented at the meeting.

FNI reviewed information provided by landowners via email and in questionnaires received during the public participation meeting to further evaluate constraints within the study area. Based on FNI's evaluation of environmental constraints information gathered during initial reconnaissance surveys, landowner provided information, and subsequent desktop reviews, the preliminary alternative route links were modified in three areas.

## 6.1 LINK MODIFICATIONS

Based on public comment received at the public participation meeting, Link DDD and Link EEE were modified to minimize the length of the alignment that occurs within native forest area along Soil Conservation Service Reservoir 86 and construction of a habitable structure along Link DDD. Modified Link DDD and modified Link EEE terminate in new Link EEE1, which was added to provide a single link to cross Chambers Creek along a natural clearing in the riparian vegetation, which also minimizes the length of the alignment across the riparian buffer. Link ZZ was modified slightly to split into two links Link ZZ and Link ZZ1 at its node with Link YY. Links AAA, BBB, and FFF were deleted in lieu of the modified Link GGG, which as modified connects directly to modified Link CCC and modified Link ZZ1. These modifications are shown in Figure 6-1.

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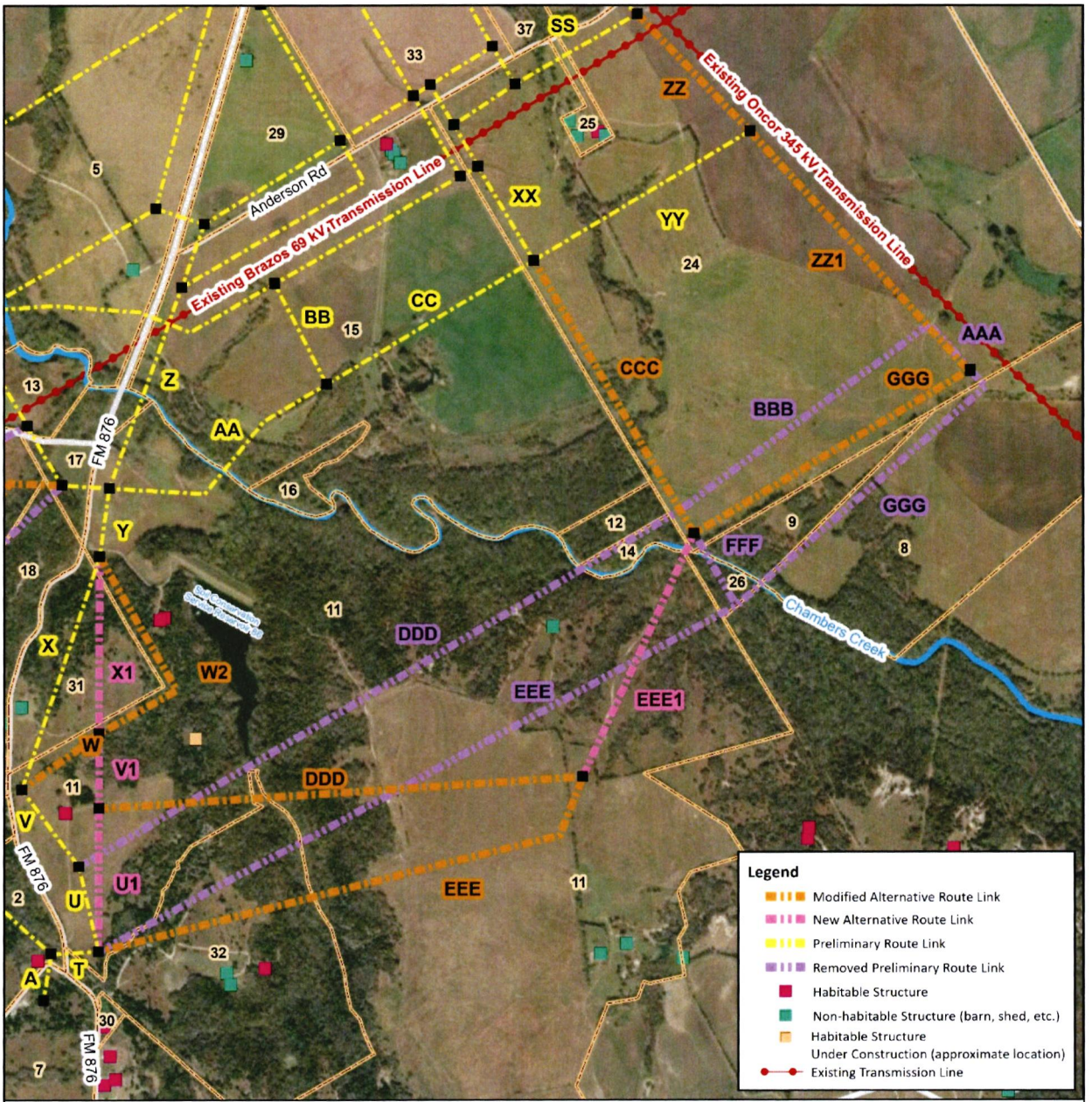


**FIGURE 6-1. MODIFICATIONS TO LINKS DDD, EEE, EEE1, ZZ, ZZ1, AAA, BBB, FFF, AND GGG OLD COUNTRY SWITCH 345 kV TAP TRANSMISSION LINE PROJECT**

0 1,000 2,000 Feet

Note:
Data is for display purposes only. All features and boundaries have been approximated from public resources. Aerial Photography (USDA, 2020b)

N W E S

Extent Map

Vicinity Map

Ellis County, Texas

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Links U, V, and X were preliminarily routed to parallel FM 876 while maintaining Oncor engineering requirements for structure spacing and structure angles. Based on subsequent field reconnaissance, Links U1, V1, and X1 were added to provide the option of a more forward-progressing route, remove several angle structures between Link T and Link Y to create a straighter alignment, and shift further from several habitable structures. Link W was modified slightly to split into two links, Link W and Link W2, at its node with new Link V1 and new Link X1. These modifications are shown in Figure 6-2.

Link D was modified to follow natural and existing clearings in the forested area. Link E was determined to be redundant of modified Link D and was, therefore, deleted. These modifications are shown in Figure 6-3.

Multiple route links cross Tract 33. During the routing process, Oncor received feedback regarding potential constraints on Tract 33. Upon review and consideration of the input received, Link LL was determined to be redundant of Link M and was, therefore, deleted. These modifications are shown in Figure 6-4.

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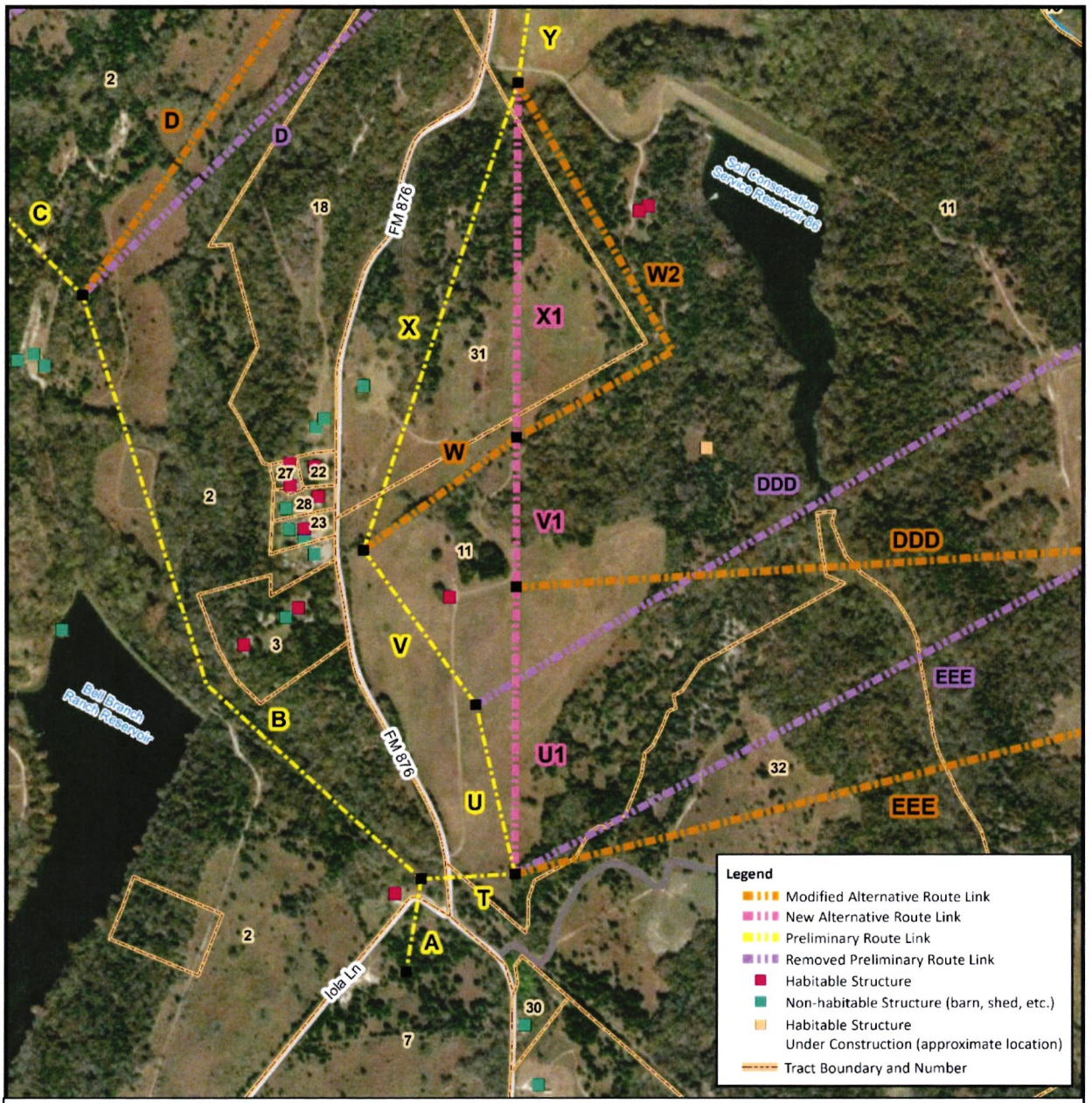


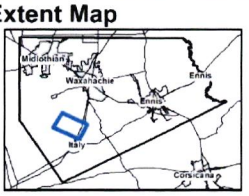

**FIGURE 6-2. MODIFICATIONS TO LINKS U1, X1, V1, W, AND W2 OLD COUNTRY SWITCH 345 kV TAP TRANSMISSION LINE PROJECT**

0 500 1,000 Feet

Note:
Data is for display purposes only. All features and boundaries have been approximated from public resources. Aerial Photography (USDA, 2020b)

N W E S

Extent Map




Vicinity Map

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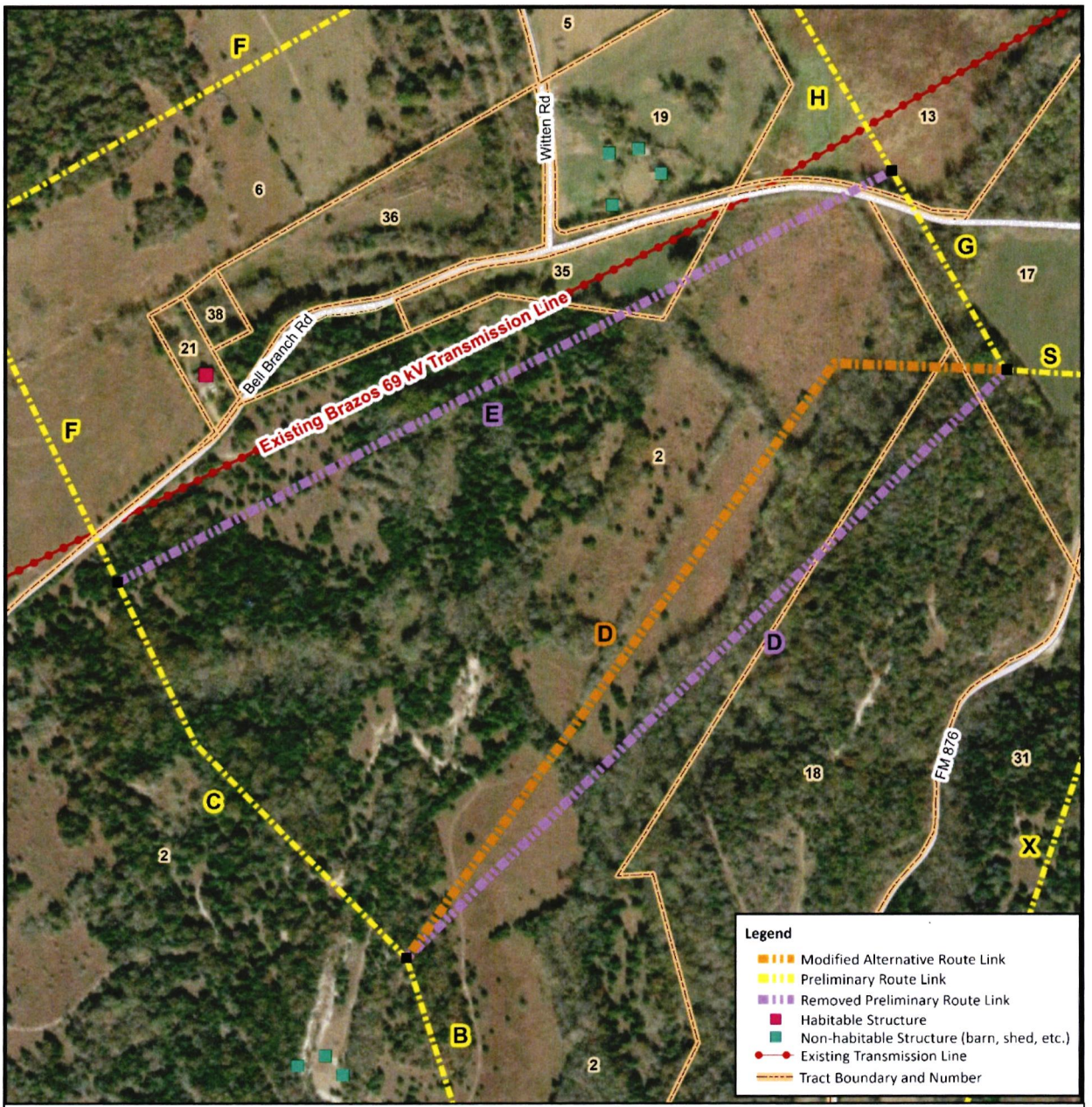


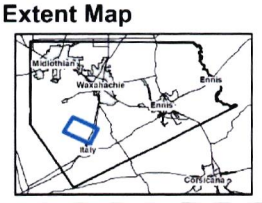

**FIGURE 6-3. MODIFICATIONS TO LINKS D AND E**
**OLD COUNTRY SWITCH 345 kV TAP TRANSMISSION LINE PROJECT**

0 375 750 Feet

Note:
Data is for display purposes only. All features and boundaries have been approximated from public resources. Aerial Photography (USDA, 2020b)

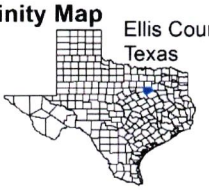
N W E S

**Extent Map**



**Vicinity Map**

Ellis County, Texas



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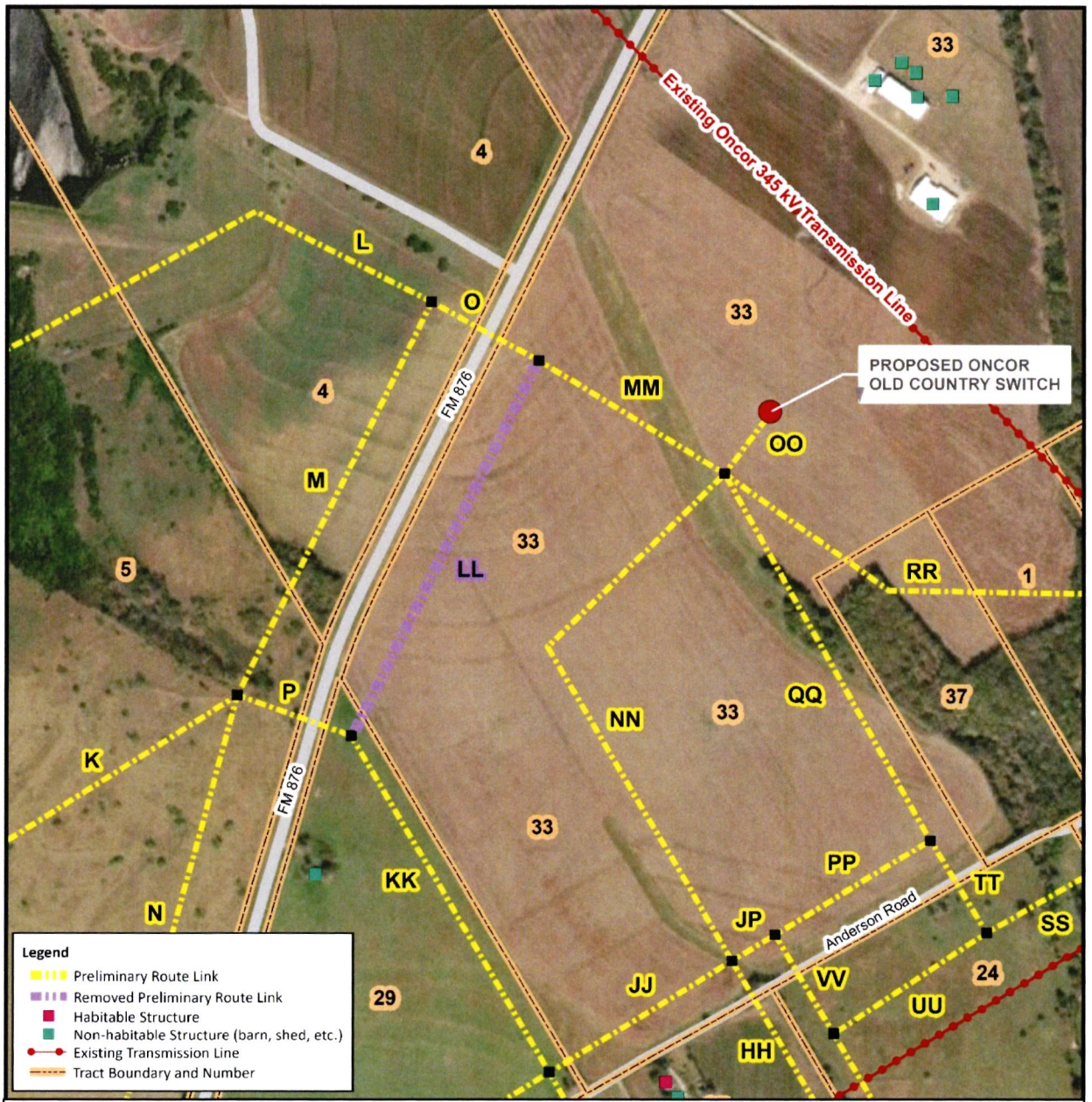


**FIGURE 6-4. MODIFICATIONS TO LINK LL**
**OLD COUNTRY SWITCH 345 kV TAP TRANSMISSION LINE PROJECT**

0 375 750 Feet

Note:
Data is for display purposes only. All features and boundaries have been approximated from public resources. Aerial Photography (USDA, 2020b)

N W E S

Extent Map

Vicinity Map

Ellis County, Texas

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# 7.0 EVALUATION OF THE ALTERNATIVE ROUTES

The evaluation presented in this section addresses impacts to the environment in consideration of the requirements of Section 37.056(c)(4)(A)-(D) of the Texas Utilities Code, the PUCTs Substantive Rules Section 25.101 including the PUCT's policy of prudent avoidance, comments from the public participation meeting, reconnaissance surveys, and the information and responses obtained from local officials and state and federal agencies.

Measurements for the majority of the environmental criteria were obtained from the USDA National Agriculture Imagery Program (NAIP) aerial photography, which was ortho-rectified to National Map Accuracy Standards with a horizontal accuracy of six meters (or approximately 20 feet) of photo-identifiable ground control points for true ground location (USDA, 2020b).

FNI professionals with expertise in different environmental disciplines (e.g., geology/soils, hydrology, terrestrial ecology, wetland ecology, land use/aesthetics, and archaeological) evaluated the alternative routes based upon environmental conditions present along each route and the general routing criteria developed by Oncor and FNI.

Each professional independently analyzed the routes defined in Table 7-1 (found in Appendix C) and the environmental and land use data presented in Table 7-2 (found in Appendix D) for the professional's technical discipline. FNI's evaluations of impacts are discussed below.

## 7.1 IMPACTS ON PHYSIOGRAPHY AND GEOLOGY

Construction of the proposed project would have no significant effect on the physiographic or geologic features/resources of the area. The erection of the structures would require the removal and/or minor disturbance of small amounts of surface and near surface materials but would have no measurable impact on the geologic resources or features along any of the alternative routes, and no geologic hazards are anticipated.

## 7.2 IMPACTS ON SOILS

### 7.2.1 Soil Associations

Construction and operation of transmission lines normally create very few long-term adverse impacts on soils. The major potential impact upon soils from transmission line construction would be erosion and soil compaction. The potential for soil erosion is generally greatest during the initial clearing of the ROW until vegetation cover reestablishes.

To provide adequate space for construction activities, to improve reliability, and to minimize corridor maintenance problems, most woody vegetation would be removed from the ROW of the proposed project. In these areas, only the leaf litter and a small amount of herbaceous vegetation would remain, and both would be disturbed by the movement of heavy equipment during construction, service, and maintenance activities.

The most important factor in controlling soil erosion associated with construction activity is to revegetate areas as soon as practical following construction. Natural succession would quickly revegetate the majority of the ROW. Critical areas, such as steep slopes and areas of shallow topsoil, may require erosion control blankets and additional seeding to maintain soil stability.

The ROW will be inspected both during and after construction to ensure that problem erosion areas are identified. In addition, Oncor will develop a Storm Water Pollution Prevention Plan (SWPPP), if required, which will detail measures to minimize impacts associated with potential soil erosion and downstream sedimentation, as well as measures to be taken following construction to revegetate disturbed areas.

### 7.2.2 Prime Farmland

Approximately 4,943 acres of the study area soils are classified as prime farmland soils (NRCS, 2021; SCS, 1980). There were no center-pivot irrigation systems identified within the study area. Other than potential construction-related erosion (mitigated per SWPPP), impacts to prime farmland of statewide importance soils, both with and without irrigation, are anticipated to be

insignificant and limited to the physical occupation of small areas at the base of support structures.

## 7.3 IMPACTS ON WATER RESOURCES

### 7.3.1 Surface Water and Floodplains

The construction of the proposed transmission line would have minimal adverse impacts on surface water resources (e.g., rivers, streams, open water lakes, wetlands) in the study area. Any creek or stream crossed by the proposed project would be spanned by the proposed transmission line and no supporting structures would be placed within the streambed of any surface drainage. The main potential impacts to surface waters and floodplains from major construction projects are siltation resulting from soil erosion and pollution from spillage of petroleum products (e.g., fuel, lubricants, etc.) or other chemicals. Clearing of vegetation could result in increased erosion resulting in slightly higher than normal sediment yields being delivered to area waterways following heavy rainfall. However, these impacts are expected to be short-term and minor based on the relatively small area to be disturbed at any particular time, the short duration of the construction activities, preservation of stream-side vegetation where practical, the efforts of Oncor to control runoff from construction areas through the use of best management practices (BMPs), and implementation of the SWPPP, if required.

Most of the potential stream crossings in the study area are associated with ephemeral streams that may only have flowing water after substantial rain events. However, it is still possible that transmission line structures would be located within the floodplain of Chambers Creek. When locating transmission line structures within a floodplain, the structures would be designed and constructed so as not to impede the flow of water or create any hazard during flooding. Also, if tower structures are to be located within floodplains, Oncor would coordinate in advance with the appropriate county floodplain administrators. Construction of the proposed project should not have significant impacts on the function of floodplains, nor adversely affect adjacent or downstream properties.

The USACE regulates the discharge of dredged and fill material into waters of the U.S., including wetlands, under Section 404 of the Clean Water Act. According to correspondence from the USACE, the proposed project would be permitted under Section 404 regulations including specific authorization under Nationwide Permit (NWP) 57 for Electric Utility Line and Telecommunications Activities (effective Date March 15, 2021) (USACE, 2021).

NWP 57 authorizes the construction, maintenance, or repair of utility lines (including overhead transmission lines), associated foundations, access roads, and substations, in all jurisdictional water features. Generally, transmission lines are designed to span stream or wetland crossings in most instances, thereby obviating the need for a Section 404 permit. Several different types of wetlands occur within the study area, including emergent wetlands (approximately 10 acres) and forested wetlands (approximately 356 acres). The length of potential wetlands impacted by each alternative route is summarized in Table 7-2 (Appendix D).

NWP 57 specifies certain conditions which necessitate filing a pre-construction notification (PCN) to the USACE and written approval before construction activities may begin including impacts to greater than one tenth of an acre of waters of the U.S. As mentioned previously, transmission lines are designed to span stream or wetland crossings in most instances, thereby minimizing the need for a Section 404 permit.

Many links cross either a creek or stream found within the study area. However, many of these crossings, as accounted in Table 7-2, are small ephemeral headwater drainages derived from NHD sources. Seven links cross Chambers Creek (i.e., Links L, K, I, R, Z, AA, and EEE1). As discussed in Section 3.4.1, Chambers Creek is not listed as an ecologically significant stream segment (TPWD, 2021a). Proposed links were selected to limit paralleling and crossing streams to minimize habitat fragmentation. Where links cross streams or riparian areas, these locations were selected for the apparent prior disturbance to minimize further fragmentation within the area.

Upon approval on a route by PUCT, Oncor will conduct field verification to delineate waters of the U.S. and wetlands impacted by the proposed transmission line project to determine the appropriate level of coordination with the USACE under the Section 404 program as requested

in the agency correspondence letter from the USACE (2021). If wetlands are cleared during construction for the proposed project, there should be no change in pre-construction contours or local drainage patterns, and wetlands should eventually re-establish within the ROW. Consistent with USACE (2021) and TPWD guidance (2021b), the location of the proposed project minimizes impacts to waterways, associated floodplains, riparian corridors, playa features, and wetlands, and maintains buffers to these features by minimizing fragmentation and utilizing/paralleling existing disturbed corridors where available.

Oncor will implement a SWPPP, if required, and will seek to minimize impacts to surface waters during construction of the proposed project. Oncor will also comply with any compensatory mitigation requirements that may be required as part of the Section 404 permitting process. From a water resources perspective, the proposed project should have no significant impacts to surface water.

### 7.3.2 Groundwater

Eleven groundwater wells were identified within the study area. Of those 11 water wells, only two water wells were identified near a proposed alternative route. One water well is located 1,420 feet to the southwest of Link L. Another water well is located 260 feet to the northeast of Link BB.

The construction, operation, and maintenance of the proposed project are not expected to adversely affect the identified water wells or groundwater resources underlying the study area or its vicinity. The amount of recharge area disturbed by construction is minor compared with the total amount of recharge area available for the groundwater systems in the region. No measurable alteration of aquifer recharge capacity would occur, and the likelihood of groundwater contamination would be minimal. The impact of the proposed transmission line on groundwater resources would be negligible because the transmission line would be constructed above ground rather than buried.

The main potential impact on groundwater resources from any construction project is pollution resulting from the accidental spillage of petroleum or other chemical products. Use of industry

standard best management practices during construction for proper control and handling of any petroleum or other chemical products would be implemented, and therefore, the project would have minimal impacts to groundwater.

## 7.4 IMPACTS ON ECOLOGY

### 7.4.1 Vegetation

#### 7.4.1.1 Terrestrial Vegetation

The primary impact to terrestrial vegetation resulting from site preparation and construction of the proposed project would be the removal of existing woody vegetation from the areas required for the transmission line ROW. Table 7-2 (Appendix D) presents the linear extent of different land cover types crossed by each of the alternative routes. All alternative routes would require some clearing of woody vegetation, which is predominately associated with crossings of the Chambers Creek floodplain and other smaller drainages scattered throughout the study area. As shown in the table, the primary terrestrial vegetation crossed by any route is classified as cropland/hay meadow, which includes all cropland where fields are fallow for some portion of the year; some fields may rotate into and out of cultivation frequently, and year-round cover crops are generally mapped as grassland cover types. The clearing of these vegetation communities could cause some degree of habitat fragmentation, however, the only land lost to grazing or farming would be that which is occupied by the base of the transmission line tower structures. Minimal clearing would be necessary where the ROW would parallel existing roads or other transmission line corridors.

Consistent with project-specific recommendations from TPWD regarding the prevention of habitat fragmentation, construction within the ROW will be performed in such a manner as to minimize adverse impacts to vegetation and to retain existing ground cover wherever possible (TPWD, 2021b). All brush and undergrowth within the ROW will be removed. Soil and plant conservation practices will be undertaken to protect native vegetation and ensure a successful restoration program for disturbed areas emphasizing native species. Erosion and stream sedimentation would be controlled as required by procedures set forth in the SWPPP, if required.

#### 7.4.1.2 Aquatic/Hydric Vegetation

Based on photointerpretation of aerial imagery, review of USGS topographic maps, and review of USFWS NWI maps, the approximate impacts to waters of the U.S. associated with each of the alternative routes were measured in linear feet. Potential waters of the U.S., including wetlands, occurring along the alternative routes are categorized as riparian habitat, but not all riparian areas may be considered jurisdictional by the USACE under Section 404 of the Clean Water Act. Most of the areas categorized as riparian are associated with the floodplain of Chambers Creek and other associated stream segments. Delineation of potentially jurisdictional waters of the U.S. would require a detailed site-specific examination of vegetation, hydrology, and soils. All alternative routes would cross riparian vegetation and potential wetland habitat. Link DDD has the longest crossing of riparian habitat (approximately 2,379 linear feet). Link GGG has the longest crossing of potential wetland habitat (approximately 832 linear feet).

Generally, the transmission line structures would be designed to span areas where wetland vegetation occurs, thereby avoiding the need for a Section 404 permit. Given the presence of apparent wetland vegetation along many of the alternative routes, authorization of project construction pursuant to Section 404 is anticipated. Upon approval on a route by PUCT, Oncor will conduct field verification to delineate waters of the U.S. and wetlands impacted by the proposed transmission line project to determine the appropriate level of coordination with the USACE under the Section 404 program, as discussed in more detail in Section 7.3.1. Additional field verification may be required to document the absence of waters of the U.S. under the Section 404 program. If wetlands cannot be avoided and need to be cleared during construction for the proposed project, there would be no change in pre-construction contours or local drainage patterns, and wetlands would eventually re-establish within the ROW.

#### 7.4.1.3 Commercially or Recreationally Important Plant Species

Commercially important vegetation within the study area includes forage and row crops. The majority of alternative routes would cross agricultural fields used for crop production, or forested/shrublands used by wildlife for forage. Small amounts of these areas may be

temporarily affected during the construction phase. However, once construction is complete, a full resumption of crop production would be anticipated and impacts to these resources should not be significant. Additionally, soil and plant conservation practices will be undertaken to protect native vegetation and ensure a successful restoration program for disturbed areas emphasizing native species.

#### 7.4.1.4 Endangered and Threatened Plant Species

According to the USFWS IPaC and TPWD TXNDD for Ellis County, no endangered or threatened plant species occur within the study area or along the proposed alternative routes (USFWS, 2021a; TPWD, 2021e). Additionally, no designated critical habitat for any endangered or threatened vegetation species occurs along the proposed alternative routes (USFWS, 2021d).

### 7.4.2 Fish and Wildlife

#### 7.4.2.1 Terrestrial Wildlife

The primary impact of construction activities on wildlife would be the result of vegetation clearing and associated ground disturbances during the construction phase of the project. The impacts of transmission lines on wildlife can be divided into short- and long-term impacts. Short-term impacts result in physical disturbance usually during construction and maintenance activities. Increased noise, activity levels during construction and maintenance, dust, and emissions from combustion engines may temporarily displace wildlife along the edges of the proposed transmission line ROW. These activities could also disturb breeding, foraging, and nesting behaviors of species inhabiting the areas adjacent to the ROW; however, these effects are expected to be minimal. Although the normal behavior of many wildlife species may be temporarily altered during construction of the proposed transmission line, permanent effects due to noise, activity levels, dust, and emissions are not expected. Long-term impacts are primarily due to habitat modification and the addition of permanent, man-made structures. In general, the primary impact of construction activities on wildlife would be the result of vegetation clearing and associated disturbances. The net effect on local wildlife from the short-term and

long-term impacts is anticipated to be minor given the narrow focus of transmission line corridors.

Any required clearing and other construction-related activities would directly and/or indirectly affect most animals that reside in, or pass through, the transmission line ROW. Some small, low-mobility species, including several species of amphibians, reptiles, and mammals, have the potential to be killed by heavy construction and maintenance machinery. If ROW clearing and construction occurs during the breeding season, impacts may occur to the young of many species including nestling and fledgling birds. Impacts to nesting birds may require mitigating measures to ensure compliance with the MBTA. Fossorial animals (i.e., those that live underground) such as mice, moles, and gophers may be similarly impacted as a result of soil compaction caused by heavy machinery. Larger or more mobile species such as birds, deer, rabbits, and foxes may avoid clearing and construction activities and be displaced to adjacent areas outside of the ROW.

After construction is completed and grasses, forbs, and shrubs can recover, many forms of wildlife are anticipated to reoccupy the ROW area. Periodic vegetation maintenance within the ROW may temporarily cause some negative impacts to wildlife habitat. Maintenance clearing activities during the breeding season may destroy some nests and broods. With the increase in sunlight penetration to a previously dense shrub/tree stratum, more perennial forbs and grasses would be expected to germinate. Such edge habitats are preferred by many species, such as the eastern cottontail rabbit, white-tailed deer, and northern bobwhite quail. Species like white-tailed deer, that require open areas, as well as dense cover, may also use the ROW. Wildlife in the immediate area may experience a loss of available vegetation for foraging during construction and may be forced to move to adjacent areas to find food; however, the prevalence of similar habitats in adjacent areas and regrowth of vegetation in the ROW following construction would minimize the effects of this loss.

Transmission line structures could benefit some bird species, particularly raptors, by providing resting and hunting perches, especially in open, treeless habitats (Avian Power Line Interaction Committee [APLIC], 2006). Resident raptors within the study area such as the American kestrel

and the red-tailed hawk, often utilize the support structures as nesting sites, as well as hunting or resting perches. By such benefits, transmission lines have increased raptor populations in some areas of the U.S. (APLIC, 2006). The danger of electrocution to birds would be insignificant since the distance between conductors, or between conductor and ground wire on 345 kV transmission lines, is greater than the wingspan of any bird in the area (i.e., greater than 8 feet). It is Oncor standard practice to install devices to deter bird landings on the insulator between the conductor and structure. This standard practice is consistent with agency-recognized guidelines for minimizing bird collision risks (APLIC, 2006; 2012).

Transmission lines (both structures and wires) could present a hazard to flying birds, particularly migrants, and especially near crossings of water features. Collisions tend to increase in frequency during the fall when migrating flocks are denser and flight altitudes are lower in association with cold air masses, fog, or inclement weather. Studies indicate that higher rates of mortality exist during periods when poor light and weather conditions persist (Bevanger and Broseth, 2004; Electric Power Research Institute, 1993). This is important to note, given that most migratory species will continue to migrate regardless of weather conditions (Gauthreaux, 1971). Overall wire strikes are greatly reduced during bright daylight hours (Pandey et al., 2008). Species at higher risk for wire strikes are those that fly in fast-moving and/or tight flocks and larger-bodied birds with more awkward flight characteristics (Winning and Murray, 1997; Rusz et al., 1986). For resident birds and birds during periods of non-migration, those most prone to collision are often the most common raptors in a given area because of a greater number of repeated flights across power lines particularly when in pursuit of prey (APLIC, 2006). Nevertheless, resident birds and those in an area for an extended period may learn the location of power lines and become less susceptible to wire strikes (Janss, 2000).

All the alternative routes cross shrub-dominated rangeland pasture and riparian areas, and therefore may potentially impact wildlife. However, these impacts are anticipated to be temporary and minimal. The greatest potential impact to wildlife from the proposed project would result from the clearing of brushland pasture habitat, clearing the ROW within 100 feet of streams, and clearing or crossing riparian areas and wetlands. As recommended by TPWD

(2021b), direct impacts to wildlife and habitat fragmentation will be greatly reduced by utilizing or paralleling existing ROW to the greatest practical extent and using visibility markers on high-voltage electrical wires and infrastructure to warn birds.

#### 7.4.2.2 Fish and Aquatic Wildlife

Potential impacts to fish and aquatic wildlife by transmission line construction activities involve mainly the effects of increased erosion and sedimentation within Chambers Creek and other smaller drainages scattered throughout the study area. Land clearing and/or construction activities may result in suspended solids entering streams traversed by the transmission line, which in turn may negatively affect many aquatic organisms that require relatively clear water for feeding and reproduction (Bonner and Wilde, 2002). The proposed project would span multiple perennial streams and other drainages, and erosion controls would be utilized to minimize any impacts to aquatic systems, if necessary.

In evaluating impacts to aquatic systems, factors taken into consideration include the number of potential wetlands crossed, the amount of ROW within 100 feet of streams, the number of stream crossings, and the amount of open water crossed. Although streams and wetlands can usually be spanned by the transmission line, increased sedimentation and turbidity could result during rainfall events. Routes parallel to and near to a stream could have a similar effect.

Vegetation clearing and building of temporary access roads during construction could result in increased sedimentation from erosion, increased suspended solids loading, or accidental petroleum spills directly into a stream. The primary aquatic ecosystems that could be directly affected by the proposed project are the Chambers Creek floodplain and its associated drainages, including Baker Branch, Bee Creek, Bell Branch, and Mill Branch. Increases in siltation may impact aquatic organisms by clogging gills, smothering, and decreasing the rate of foraging success in fish species (Bonner and Wilde, 2002). Additionally, fish that require relatively clear water for feeding and reproduction may be negatively impacted. Reduced water quality due to runoff caused by direct mechanical damage from workers, equipment clearing of riparian vegetation, or siltation from erosion in newly disturbed areas can decrease the rate of photosynthesis in

aquatic plants and affect dissolved oxygen levels (Kjelland et al., 2015). Particularly sensitive areas include gravel, riffle, and sand bottom habitats in the various creek drainages. Blanketing of these areas by fine sediments could eliminate habitats important for fish spawning, resident benthic invertebrates, nymphal dragonflies, mayflies and caddisflies, and freshwater mussels (Harrison et al., 2007).

These potential impacts would be largely, if not completely, avoided by appropriate construction techniques. The construction of temporary access roads and the installation of culverts would be minimized, however, if necessary, would be constructed in a manner to prevent damage or erosion to the ROW and/or adjacent property or environmentally sensitive areas such as wetlands. Oncor and its contractors would exercise care to avoid affecting aquatic life when using chemical herbicides to control vegetation within the ROW. Herbicide use would comply with rules and guidelines established in the Federal Insecticide, Fungicide, and Rodenticide Act, and with Texas Department of Agriculture regulations. The proposed transmission line route would cross Chambers Creek, and potentially other smaller drainages and tributaries, in a perpendicular fashion such that the water bodies would be spanned. Additionally, the majority of wetland vegetation that would be crossed by the transmission line would be spanned. Minimal direct impacts to aquatic resources in the study area are anticipated. Implementation of the SWPPP, if required, would minimize potential impacts from soil erosion and siltation near aquatic habitats and wetland vegetation.

#### 7.4.2.3 Commercially or Recreationally Important Fish and Wildlife Species

Construction of the alternative routes is not anticipated to have adverse impacts on commercially or recreationally important fish and wildlife species occurring within the study area. Game and recreational species are highly mobile, and it would be anticipated that these species would leave the immediate vicinity during initial construction phases. These species may experience a loss of forage vegetation during and after construction; however, the prevalence of similar habitats in adjacent areas would minimize the effect of the loss. Additionally, much of the ROW would be available to wildlife species for forage after completion of construction.

#### 7.4.2.4 Endangered and Threatened Fish and Wildlife Species

According to TPWD and USFWS, there are three federally endangered or threatened species listed for Ellis County, including the piping plover, red knot, and whooping crane, that have the potential to occur within the study area. Also, the federally delisted bald eagle and interior least tern and the federal candidate species (Texas fawnsfoot and monarch butterfly) have the potential to occur in the study area. An additional nine state-listed threatened species were identified within the study area.

Whooping cranes, piping plovers, and red knots are primarily coastal migrants. Preferred habitat for these species, which includes brackish bays, tidal mud flats, marshes, and dunes, are not found within the study area (USFWS, 2021a). There are no large, wetted areas within the study area that would provide suitable habitat for the shorebirds. While there is a chance that birds may use smaller wetted habitat or fields within the study area as a stopover on their migratory route, it is very unlikely that the species would be affected by the transmission line project. There have been no eBird (2021) observations for the three federally listed species within the study area. TPWD TXNDD (2021g) shows no official observations in or near the study area. Since no suitable habitat for the three listed species was observed within the study area, no impacts to these listed species are anticipated from the project.

Bald eagles could use Chambers Creek for hunting purposes and potentially nest in large trees along the creek. Even though the bald eagle has been delisted by the USFWS as a threatened or endangered species, bald eagles are protected under the Bald and Golden Eagle Protection Act (BGEPA). As such, if a bald eagle or bald eagle nest is observed in proximity to the PUCT-approved route, coordination with the USFWS would occur to ensure impacts to the individual or nest could be avoided.

There is the potential for interior least tern to occur within Ellis County; however, there was no suitable habitat observed within the study area for the species. eBird (2021) and TXNDD (TPWD, 2021g) show no observations of the bird species in or near the study area. The proposed transmission line project is anticipated to have little impact on this migratory bird species.

Texas fawnsfoot is a candidate species considered for federal listing. The freshwater mussel is typically found in perennial streams within the Colorado and Brazos River watersheds (Howells, 2014). TXNDD shows no reported observations of the mussel within the study area (TPWD, 2021g). The proposed transmission line project will span over the creeks and streams in the study area so no direct impacts to aquatic habitat for this species are anticipated. TPWD (2021b) recommends avoiding impacts to aquatic and riparian habitat and minimize number of crossings of major creeks and rivers. In addition, TPWD recommends that construction activities should avoid spawning periods whenever possible.

The alligator snapping turtle is a state-listed threatened aquatic reptile. While TPWD (2021g) data indicates that alligator snapping turtles have been observed in Ellis County, the proposed transmission line would span aquatic habitats and would not appreciably affect the quality or quantity of the alligator snapping turtles' aquatic habitat. Therefore, the populations of alligator snapping turtle that may be present are not expected to be affected by the proposed project. In addition, TPWD (2021b) recommends avoiding impacts to aquatic and riparian habitat and minimize number of crossings of major creeks and rivers.

The black rail is a state-listed threatened bird species. eBird (2021) and TPWD TXNDD (2021g) data show no official observations reported near the study area. Since no suitable habitat for the listed species was observed within the study area, no impacts to the species are anticipated from the project.

The Louisiana pigtoe is a state-listed threatened freshwater mussel found in small streams and large rivers in slow to moderate current. While TPWD (2021g) data show some observations reported near the study area, the proposed transmission line would span aquatic habitats and would not appreciably affect the quality or quantity of Louisiana pigtoe mussels or their habitat. TPWD (2021b) recommends avoiding impacts to aquatic and riparian habitat and minimize number of crossings of major creeks and rivers. In addition, TPWD recommends that construction activities should avoid spawning periods whenever possible.

The sandbank pocketbook is a state-listed threatened freshwater mussel found in streams and rivers in slow to moderate current in sandy mud to sand and gravel substrate. While TPWD (2021g) data show some observations reported near the study area, the proposed transmission line would span aquatic habitats and would not appreciably affect the quality or quantity of sandbank pocketbook mussels or their habitat. TPWD (2021b) recommends avoiding impacts to aquatic and riparian habitat and minimize number of crossings of major creeks and rivers. In addition, TPWD recommends that construction activities should avoid spawning periods whenever possible.

The Texas heelsplitter is a state-listed threatened freshwater mussel that prefers habitat in small streams and large rivers in standing to slow-flowing water. While TPWD (2021g) data show some observations reported near the study area, the proposed transmission line would span aquatic habitats and would not appreciably affect the quality or quantity of Texas heelsplitter mussels or their habitat. TPWD (2021b) recommends avoiding impacts to aquatic and riparian habitat and minimize number of crossings of major creeks and rivers. In addition, TPWD recommends that construction activities should avoid spawning periods whenever possible.

The Texas horned lizard is a state-listed threatened terrestrial reptile. TPWD (2021g) data indicates that the Texas horned lizard has been observed in or near the study area. TPWD (2021b) provides specific recommendations for Texas horned lizard including pre-construction surveys for suitable habitat and relocation when individuals are found. Recommendations are also provided by TPWD for exclusion controls to prevent individuals from re-entering the disturbance area. If suitable habitat cannot be avoided, TPWD further recommends that a permitted biological monitor be present during construction to relocate Texas horned lizards, if found, and to minimize disturbance of harvester ant mounds (their primary food source) during construction.

The Trinity pigtoe is a state-listed threatened freshwater mussel found in a variety of habitats but most common in riffles of streams and creeks. While TPWD (2021g) data show some observations reported near the study area, the proposed transmission line would span aquatic habitats and

would not appreciably affect the quality or quantity of Trinity pigtoe mussels or their habitat. TPWD (2021b) recommends avoiding impacts to aquatic and riparian habitat and minimize number of crossings of major creeks and rivers. In addition, TPWD recommends that construction activities should avoid spawning periods whenever possible.

The white-faced ibis is a state-listed threatened bird species that prefers freshwater marshes, sloughs, and irrigated rice fields as habitat. eBird (2021) and TPWD (2021g) data show some observations reported near the study area. Since no suitable habitat for the listed species was observed within the study area, no impacts to the species are anticipated from the project.

The wood stork is a state-listed threatened, long-legged wading bird that prefer large tracts of bald cypress (Taxodium distichum) or red mangrove (Rhizophora mangle). Their historical range included Texas, but no breeding observations in Texas have been recorded since 1960. (USFWS, 2021d; TPWD, 2021g). It is unlikely for this species to be present in the study area or affected by the project since no suitable breeding habitat was observed in the study area.

For all listed and otherwise rare wildlife species, TPWD advised that precautions should be taken if any endangered, threatened, or rare animal species included on county rare species lists are known to occur in the study area or have been documented in the recent past (TPWD, 2021b). While none of the federally or state listed species or rare SGCN species listed in Tables 3-11 and 3-12 are likely to be impacted by construction and operation of the proposed transmission line project, upon PUCT approval of a route, Oncor will conduct field surveys to evaluate the presence of federal or state listed threatened, endangered, candidate, or rare fish and wildlife species and preferred habitat that may be present along the PUCT-approved alignment.

### 7.4.3 Summary of Natural Resources Impacts

Several natural resource areas have been evaluated to determine the relative ecological impacts of the alternative routes. For this proposed project, these areas primarily included potential impacts to vegetation and wildlife. Although the alternative routes have the potential to impact natural resources, none of the alternative routes for the proposed project are anticipated to have any significant impacts to the natural resources of the area.

## 7.5 IMPACTS ON COMMUNITY VALUES AND COMMUNITY RESOURCES

Impacts on community resources can be classified into two areas: (1) direct effects, which are those effects that would occur if the location and construction of a transmission line results in the removal of a valued resource or loss of public access to a valued resource; and (2) indirect effects, or those effects that would result from a loss in the enjoyment or use of a resource due to the characteristics (primarily aesthetic) of the proposed transmission line, structures, or ROW.

Impacts on community resources, whether direct or indirect, can be more accurately gauged as they affect recreation areas, recreational resources, or the visual environment of an area (aesthetics). The sections that follow discuss impacts to community values and community resources.

## 7.6 IMPACTS ON LAND USE

Land use impacts from transmission line construction are determined by the amount of land (of whatever use) displaced by the actual ROW and by the compatibility of electric transmission line ROW with adjacent land uses. During construction, temporary impacts to land uses within the ROW could occur due to the movement of workers and materials through the area. Noise and dust from construction, as well as disruption of traffic flow, may also temporarily affect residents and businesses in the area immediately adjacent to the ROW. Coordination between Oncor, its contractors, and landowners regarding access to the ROW, and construction scheduling, should minimize these disruptions. Most existing land uses may continue during construction.

The primary criteria considered to measure potential land use impacts from the proposed project include overall route length, proximity to habitable structures, length parallel to existing corridors (including apparent property boundaries), and potential impacts to park/recreation areas.

### 7.6.1 Urban and Residential Areas

Important measures of potential land use impacts include the number of habitable structures located near each alternative route and the proximity of each habitable structure. FNI

determined the number and distance of habitable structures located within 500 feet of the centerline of each alternative route through the interpretation of aerial photography and verification during reconnaissance surveys, where practical. The aerial photography used to determine the distance of habitable structures within 500 feet of the centerline of each alternative route has a horizontal accuracy of +/- 20 feet. To account for this level of accuracy, FNI identified all habitable structures within a measured distance of 520 feet of each alternative route centerline.

Habitable structures within the study area near the alternative routes primarily consist of single-family residences (SFRs) or ranch facilities concentrated near major roadways or ranch roads, primarily along FM 876. Habitable structures within 520 feet of the alternative routes are documented in Table 7-3 which provides distance and direction from the habitable structure to each link (attached as Appendix E), as well as a general description of the habitable structure. Figure 3-1 shows the location of habitable structures in Table 7-3, in relation to each link.

PUCT Substantive Rules Section 25.101(b)(3)(B) requires, among other things, that the PUCT consider whether new transmission line routes parallel existing compatible ROW, property lines, or other natural or cultural features in selection of a route. The length of alternative routes parallel to existing corridors (including apparent property boundaries) range between 3.3 and 76.6 percent of the total route length. These totals are reflected in Table 7-2 in Appendix D. The length parallel to compatible corridors includes paralleling roadways, existing transmission lines, and apparent property boundaries. In several instances, portions of links may deviate from paralleling compatible ROW to account for habitable structures or other environmental or land use constraints. Given the general isolation of the study area from urban centers, the proposed project should have minimal impacts on urban or residential development.

### 7.6.2 Recreation Areas

There are no parks or recreation areas identified in the vicinity of the alternative routes. Potential impacts to recreation areas include the disruption or preemption of recreational activities. Given

that there are no parks or recreation areas identified in the vicinity of the proposed project, there are no anticipated impacts to parks or recreational areas.

### 7.6.3 Agriculture

Impacts to agricultural lands can generally be ranked by degree of potential impact, with the least potential impacts occurring in areas where grazing is the primary use (pasture or rangeland) and the highest degree of potential impact occurring to cultivated cropland. Given that agriculture is a common land use for most of the entire study area, all the alternative routes would cross pastureland of some type. Minimal impacts to cropland are anticipated as a result of the proposed project. Since Oncor will not fence the ROW or otherwise separate the ROW from adjacent lands, existing land uses may be resumed following construction. There would be no long-term or significant displacement of farming or grazing activities. No traveling irrigation systems or other aboveground mechanical components (e.g., windmills, water troughs) were identified near any of the proposed alternative routes.

### 7.6.4 Aesthetics

Aesthetic impacts, or impacts on visual resources, exist when the ROW, lines and/or structures of a transmission line system create an intrusion into, or substantially alter the character of, the existing view. The significance of the impact is directly related to the quality of the view in the case of natural scenic areas. In the case of valued community resources and recreation areas, the significance of the impact is related to the importance of the existing setting in the use and/or enjoyment of an area.

Construction of the proposed project could have both temporary and permanent aesthetic effects. Temporary impacts would include views of the actual assembly and erection of the structures. Where heavily vegetated areas are cleared, the brush and debris could have an additional negative temporary impact on the local visual environment. Permanent aesthetic impacts from the proposed project would involve the views of the structures and lines.

To evaluate aesthetic impacts, reconnaissance surveys were conducted to determine which segments of the proposed project would be visible from selected publicly accessible areas. These areas included those of potential community value, community resources, public recreation areas, and federal and state highways that cross the study area. Measurements were made to estimate the length of each alternative route that would fall within recreational or major highway foreground visual zone (i.e., one-half mile, unobstructed by topography, structures, or vegetation). This determination of the visibility of the transmission line from various points was calculated from USGS maps and recently flown aerial photography (USDA, 2020b).

No alternative link was within the visual foreground zone of public parks and/or recreational areas since there are none within the study area, and thus there is no expectation for impacts to the aesthetic views of these areas. No alternative link was within the visual footprint of major highways in the study area including IH-35E and US-77, and thus there is no expectation for impacts to the aesthetic views from these corridors. The proposed transmission line may be visible from portions of FM 876, a TxDOT-maintained roadway, depending on the terrain, tower height, and vegetative cover in the area. No other potential aesthetic impacts were identified during FNI's evaluation.

### 7.6.5 Transportation and Aviation

Potential impacts to transportation could include temporary disruption of traffic and conflicts with proposed roadway and/or utility improvements and may include slightly increased traffic during construction of the proposed project. However, such impacts are usually temporary and short-term.

The FAA provided a letter in response to a solicitation for information relevant to the proposed project. FAA's letter requested compliance with its guidelines for the construction of structures that may affect navigable airspace and provided instructions on the procedure for obtaining FAA approval for transmission lines proposed in the vicinity of an airport (FAA, 2021).

Typical transmission line structure heights would be approximately 80 to 160 feet above ground surface depending on the terrain. According to FAA Regulations (14 Code of Federal Regulations

(CFR) Part 77), notification of the construction of the proposed project is required if structure heights exceed the height of an imaginary surface extending outward and upward at a slope of 100 to 1 for a horizontal distance of 20,000 feet from the nearest point of the nearest runway of a public or military airport having at least one runway longer than 3,200 feet in length; 50 to 1 for a horizontal distance of 10,000 feet from the nearest runway of a public or military airport where all runways are less than 3,200 feet in length; or 25 to 1 for a horizontal distance of 5,000 feet for heliports.

FNI's review of federal and state aviation/airport maps and directories, aerial photography interpretation, and reconnaissance surveys identified no FAA-registered public or military facilities within the FAA criteria, including no FAA-registered public or military airport with no runway greater than 3,200 feet in length within 20,000 feet of any alternative route, no FAA-registered public or military airport with no runway greater than 3,200 feet in length within 10,000 feet of any alternative route, no private airstrips within 10,000 feet of any alternative route, and no heliport within 5,000 feet of any alternative route. The nearest aviation facility, George P Shanks Airport, is a private airfield located approximately 16,000 feet to the north of the study area.

Once the PUCT approves a route, Oncor will closely evaluate these constraints along the selected route during the engineering phase of the proposed project and will notify and coordinate with the FAA, as necessary.

### 7.6.6 Communication Towers

One communication tower was located within the study area. Brazos Electric Power Cooperative has a 75.3-foot communications antenna at a station located along Bill Lewis Road on the northern edge of the study area along the existing Brazos 69 kV transmission line that crosses the study area. The next closest communications antenna was identified near IH-35E just outside the study area. Neither of these communication towers are located within 2,000 feet of any of the proposed alternative route links.

No commercial AM radio transmitters were identified within the study area, and therefore, the proposed project is not located within 10,000 feet of any AM radio transmitter. No FM radio transmitters were identified in the study area, and therefore, the proposed project is not within 2,000 feet of any FM radio transmitter. No other communication towers were identified within the study area or within 2,000 feet of any alternative route. As such, no impacts to communication signals are anticipated as a result of the proposed project.

## 7.7 IMPACTS ON CULTURAL RESOURCES

Construction activities associated with the proposed project have the potential to adversely impact cultural resources through changes in the quality of the archaeological, historical, or cultural characteristics that qualify a property to meet the criteria of eligibility of the NRHP. These impacts occur when an undertaking alters the integrity of location, design, setting, materials, construction, or association that contribute to a resource's significance in accordance with the NRHP criteria.

As discussed in 36 CFR Part 800, adverse impacts on the NRHP or eligible properties may occur under conditions that include, but are not limited to, destruction or alteration of all or part of a property, isolation from or alteration of the property's surrounding environment (setting), or introduction of visual, audible, or atmospheric elements that are out of character with the property or alter its setting.

Impacts may be direct or indirect. Direct impacts typically occur during construction. Indirect impacts include those caused by construction that occur later in time or are farther removed but are foreseeable. These impacts may include alterations in the pattern of land use, changes in population density, or accelerated growth rates, all of which may have an impact on properties with historical, architectural, archaeological, or cultural significance.

The preferred form of mitigation for direct or indirect impacts for cultural resources is avoidance. An alternative form of mitigation of direct impacts can be developed for archaeological and historical sites with the implementation of a program of detailed data retrieval. Additionally,

relocation may be possible for some historic structures. Indirect impacts on historical properties and landscapes can be lessened through careful design considerations and landscaping.

One of the methods utilized to assess an area for potential prehistoric cultural resources is to identify HPAs. Locations that are usually identified as HPAs for the occurrence of prehistoric sites include water crossings, stream confluences, drainages, alluvial terraces, wide floodplains, upland knolls, and other areas where lithic resources could be found. When defining HPAs, a distance relationship to a water resource (about 1,000 feet) is set that would encompass landforms that may have attracted past human activity and are therefore deemed appropriate for the presence of cultural resource sites.

As a formal cultural resources survey has not been conducted for any of the alternative routes, the possibility of affecting unknown archaeological sites exists. Correspondence from TARL reported that the study area contains two previously recorded archaeological sites and three historic cemeteries, and generally advises that the lack of records may indicate that the region has yet to be explored for additional potential sites (TARL, 2021).

### 7.7.1 Historical Summary

There are no sites in the study area that have been recorded in the NRHP for Ellis County. Four historical cemeteries were identified within the study area; however, there were no historical cemeteries identified within 1,000 feet of any alternative route centerline. No OTHMs were identified in the study area or within 1,000 feet of any alternative route centerline.

Field reconnaissance of the study area provided a better understanding of surviving property types in the region and confirmed that the proposed alternative routes transect an area that has previously been developed, including existing transmission line facilities.

### 7.7.2 Archaeological Summary

Two previously recorded archaeological sites were identified within the study area. One archaeological site (41EL23), which is generally located on the north side of Chambers Creek approximately 100 yards from Chambers Creek and approximately 100 yards east of a gravel pit

to the east of FM 876. This archaeological site is located within 1,000 feet of Link AA, Link BB, and Link CC. This previously recorded archaeological site was documented in 1969 by C.K. Chandler and most of the materials collected appear to be located at the surface, including flakes, cores, or other miscellaneous artifacts. The second previously recorded archaeological site is located in the northwestern corner of the study area and is not located within 1,000 feet of any alternative route centerline.

No sites listed on the NRHP or designated as a State Antiquities Landmark were identified within or near the study area. Consequently, the study area was reviewed for HPAs. HPAs typically consist of areas that contain deep soils and lie within nearly 1,000 feet of natural water sources. The study area contains HPAs for the occurrence of cultural resource sites along the confluence of Chambers Creek and Bell Branch. Given the small footprint of the proposed transmission line structures along the proposed route, it is anticipated that the proposed project will have minimal impacts to cultural resources.

In a response letter received from the THC (2021a), the THC recommended that a supplemental review and further consultation with the THC be conducted when detailed maps of the alternatives being considered are available. A cultural resources survey will be conducted in accordance with the pre-approved research design developed by Oncor and THC for new transmission line studies before construction begins on this proposed project. Any cultural resources discovered during this initial survey will be mitigated in consultation with the THC, as appropriate. In the event Oncor or its contractors encounter any archeological artifacts or other cultural resources during construction of the proposed project, Oncor will cease work in the immediate vicinity of the resource and report the discovery to the THC. It is anticipated that the proposed project will have no substantial impacts to cultural resources.

## 8.0 LIST OF PREPARERS

FNI prepared this Environmental Assessment and Alternative Route Analysis for Oncor for the proposed project. Table 8-1 provides a list of the project team with primary responsibilities for the preparation of this document.

**Table 8-1: List of Preparers**

| Role | Name | Title |
|---|---|---|
| Project Manager | Kimberly Buckley, PG | Environmental Scientist |
| Physiography and Geology | Kimberly Buckley, PG<br>Michelle Sobba, PG<br>Alyxes Martinez, GIT | Environmental Scientist<br>Environmental Scientist<br>Environmental Scientist |
| Water Resources and Soils | Kimberly Buckley, PG<br>Michelle Sobba, PG<br>Alyxes Martinez, GIT | Environmental Scientist<br>Environmental Scientist<br>Environmental Scientist |
| Vegetation Ecology | Rick Zarate, PWS<br>Kelsey Calvez<br>Tam Tran | Environmental Scientist<br>Environmental Scientist<br>Environmental Scientist |
| Fish and Wildlife Ecology | Rick Zarate, PWS<br>Kelsey Calvez<br>Tam Tran | Environmental Scientist<br>Environmental Scientist<br>Environmental Scientist |
| Land Use/Aesthetics | Kimberly Buckley, PG<br>Michelle Sobba, PG<br>Alyxes Martinez, GIT | Environmental Scientist<br>Environmental Scientist<br>Environmental Scientist |
| Cultural Resources | Brian King, GISP, RPA, CFM<br>Erin Kelly, GIT | Archaeologist<br>Environmental Scientist |
| Maps/Figures/Graphics | Heath Myers | GIS Analyst |
| Quality Review | Lisa Vitale, FP-C<br>Kimberly Buckley, PG | Environmental Scientist<br>Environmental Scientist |

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# APPENDIX A
# AGENCY CORRESPONDENCE

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## APPENDIX A. AGENCY CORRESPONDENCE

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801 Cherry Street, Suite 2800 • Fort Worth, Texas 76102 • 817-735-7300 • fax 817-735-7491 www.freese.com

Date

Name
Title
Agency
Address Line 1
Address Line 2

Re: Oncor Electric Delivery Company's Proposed Old Country Switch 345kV Tap Transmission Line Project in Ellis County, Texas

Dear Name:

Oncor Electric Delivery Company LLC (Oncor) proposes to construct a 345 kilovolt (kV) transmission line between the proposed Old Country Switch and the Oystercatcher Plant Switch in Ellis County. The proposed Old Country Switch will be located along the existing Old Country 345kV Transmission Line approximately two miles to the west of Interstate Highway 35E and approximately 0.3 miles to the east of Farm to Market Road (FM) 876. The Oystercatcher Plant Switch is located proximal to the intersection of Iola Lane and L R Campbell Road approximately 3.5 miles to the north-northwest of Italy, Texas. The distance between these project endpoints as shown in the attached map is approximately three miles.

Freese and Nichols, Inc. is preparing an Environmental Assessment (EA) and Alternate Route Analysis to support an application for a Certificate of Convenience and Necessity (CCN) from the Public Utility Commission of Texas (PUCT). Freese and Nichols is currently in the process of gathering data on the existing environment and identifying environmental land use constraints within the project study area that will be used in the creation of an environmental and land use constraints map. Freese and Nichols will identify potential alternative routes that consider environmental and land use constraints.

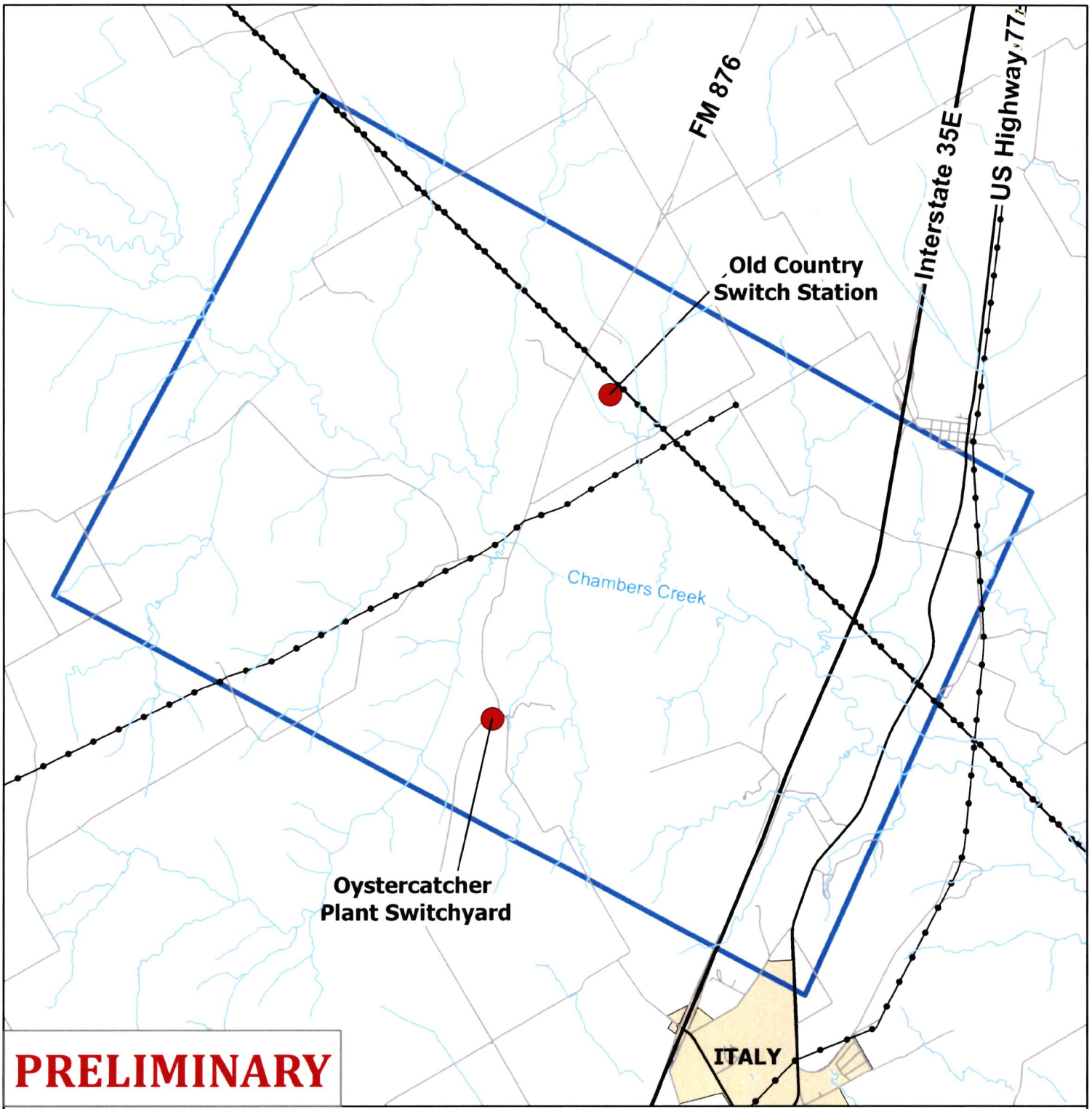
Freese and Nichols is requesting that your office provide environmental and land use constraints information regarding existing or planned land development projects, city projects, or other areas of interest to Agency within the project study area. Your comments will be an important consideration in the evaluation of alternative routes and in the assessment of impacts. Upon certification of the final route for the proposed project, Oncor will determine the need for other approvals and/or permits. If your jurisdiction has approvals and/or permits that would apply to this project, please identify them in response to this inquiry. If permits are required from your office, Oncor will contact your office following certification of this project.

Thank you for your assistance with this transmission line project. If you have any questions or require additional information, please contact me at (817) 735-7332 or Kimberly.Buckley@freese.com. Your earliest reply will be appreciated.

Sincerely,
FREESE AND NICHOLS, INC.

Kimberly Buckley, PG
Associate, Project Manager

Attachment




**PRELIMINARY**

ONCOR

# OLD COUNTRY SWITCH 345kV TAP TRANSMISSION LINE PROJECT

FREESE AND NICHOLS

0 0.25 0.5 1 Miles

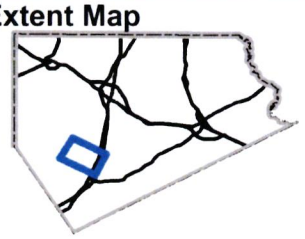
Note:
Data is for display purposes only. All features and boundaries have been approximated from public resources.

N W E S

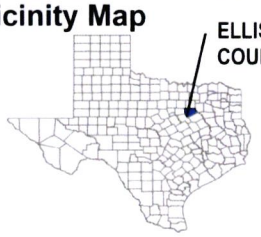
**Legend**

- Proposed End Points
- Study Area
- Existing Transmission Line
- Major Roads
- Minor Roads
- Incorporated City Limits

**Extent Map**



**Vicinity Map**



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April 5, 2021

Military Aviation and Installation Assurance Siting Clearinghouse
3400 Defense Pentagon, Room 5C646
Washington, DC 20301

Re: Oncor Electric Delivery Company's Proposed Old Country Switch 345 kV Tap Transmission Line Project in Ellis County, Texas

Dear Military Aviation and Installation Assurance Siting Clearinghouse:

Oncor Electric Delivery Company LLC (Oncor) proposes to construct a 345 kilovolt (kV) transmission line between the proposed Oncor Old Country Switch and Oystercatcher Solar's facilities in Ellis County. The proposed Oncor Old Country Switch will be located along the existing Oncor 345 kV Transmission Line approximately two miles to the west of Interstate Highway 35E and approximately 0.3 miles to the east of Farm to Market Road (FM) 876. The Oystercatcher Plant Switch is located proximal to the intersection of Iola Lane and L R Campbell Road approximately 3.5 miles to the north-northwest of Italy, Texas. The distance between these project endpoints as shown in the attached map is approximately three miles.

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Freese and Nichols is requesting that your office provide environmental and land use constraints information regarding existing or planned land development projects, city projects, or other areas of interest to the Military Aviation and Installation Assurance Siting Clearinghouse within the project study area. Your comments will be an important consideration in the evaluation of alternative routes and in the assessment of impacts. Upon certification of the final route for the proposed project, Oncor will determine the need for other approvals and/or permits. If your jurisdiction has approvals and/or permits that would apply to this project, please identify them in response to this inquiry. If permits are required from your office, Oncor will contact your office following certification of this project.

Thank you for your assistance with this transmission line project. If you have any questions or require additional information, please contact me at (817) 735-7332 or Kimberly.Buckley@freese.com. Your earliest reply will be appreciated.

Sincerely,
FREESE AND NICHOLS, INC.

Kimberly Buckley

Kimberly Buckley, PG
Associate, Project Manager

Attachment

## Initial Email Response from Department of Defense

**Kimberly Buckley**

**From:** Townes, Daniel W CTR (USA) <daniel.w.townes.ctr@mail.mil>
**Sent:** Tuesday, April 6, 2021 7:13 AM
**To:** Kimberly Buckley
**Subject:** RE: [Non-DoD Source] Vendor Informal Review Inquiry

Good morning Ms. Buckley,

Do you happen to know the structure heights associated with this project?

Thank you.

Respectfully,

Dan Townes
Military Aviation and Installation Assurance Siting Clearinghouse
Office of the Assistant Secretary of Defense (Sustainment)
Desk: 571-372-8414 *(temporarily unavailable)*
NIPR: daniel.w.townes.ctr@mail.mil

**Kimberly Buckley**

**From:** Kimberly Buckley
**Sent:** Wednesday, April 7, 2021 12:47 PM
**To:** Townes, Daniel W CTR (USA)
**Subject:** RE: [Non-DoD Source] Vendor Informal Review Inquiry

Mr. Townes,
I have received your question and have relayed the request to our engineers who are finalizing their design specifications this week. As soon as I receive that information from them, I will let you know.
Thank you for your prompt response,
Kimberly

## Subsequent Email Response from Department of Defense

**Kimberly Buckley**

**From:** Townes, Daniel W CTR (USA) <daniel.w.townes.ctr@mail.mil>
**Sent:** Wednesday, April 7, 2021 1:09 PM
**To:** Kimberly Buckley
**Subject:** RE: [Non-DoD Source] Vendor Informal Review Inquiry

Thank you Ms. Buckley.

R/
Dan

**Kimberly Buckley**

**From:** Kimberly Buckley
**Sent:** Wednesday, April 7, 2021 4:27 PM
**To:** Townes, Daniel W CTR (USA)
**Subject:** RE: [Non-DoD Source] Vendor Informal Review Inquiry

Mr. Townes,
The anticipated structure heights range from 85 feet to 160 feet depending on the terrain. Please let me know if you have any additional questions as you review our request.
Thank you,
Kimberly

## Subsequent Email Response from Department of Defense

**Kimberly Buckley**

**From:** Townes, Daniel W CTR (USA) <daniel.w.townes.ctr@mail.mil>
**Sent:** Thursday, April 8, 2021 6:20 AM
**To:** Kimberly Buckley
**Subject:** RE: [Non-DoD Source] Vendor Informal Review Inquiry

Thank you Kimberly. This helps a lot.

I appreciate you proving this information.

Take care.

R/
Dan

**Kimberly Buckley**

| | |
|---|---|
| **From:** | Townes, Daniel W CTR OSD OUSD A-S (USA) <daniel.w.townes.ctr@mail.mil> |
| **Sent:** | Wednesday, May 19, 2021 2:36 PM |
| **To:** | Kimberly Buckley |
| **Cc:** | Sample, Steven J CIV OSD OUSD A-S (USA) |
| **Subject:** | Response Letter for the Old Country Switch 345 kV Tap Transmission Line Project |
| **Attachments:** | IR - Old Country Switch 345 kV Tap Transmission Line Project - Response Letter.pdf |

Ms. Buckley,

Attached is the Informal Review Response Letter for the Old Country Switch 345 kV Tap Transmission Line Project.

Please contact Mr. Steve Sample or me if you have any questions or concerns.

Thank you.

Respectfully,

Dan Townes
Military Aviation and Installation Assurance Siting Clearinghouse
Office of the Assistant Secretary of Defense (Sustainment)
Desk: 571-372-8414 *(temporarily unavailable)*
NIPR: daniel.w.townes.ctr@mail.mil

May 19, 2021

Kimberly Buckley
Freese and Nichols, Inc.
801 Cherry Street, Suite 2800
Fort Worth, TX 76102

Dear Ms. Buckley,

As requested, the Military Aviation and Installation Assurance Siting Clearinghouse coordinated within the Department of Defense (DoD) an informal review of the Old Country Switch 345 kV Tap Transmission Line Project. The results of our review indicated that the transmission line project, located in Ellis County, Texas, as proposed, will have minimal impact on military operations conducted in the area.

Please note that this informal review by the DoD Military Aviation and Installation Assurance Siting Clearinghouse does not constitute an action under 49 United States Code Section 44718 and that the DoD is not bound by the conclusion arrived at under this informal review. To expedite our review in the Obstruction Evaluation Airport Airspace Analysis (OE/AAA) process, please add the project number 2021-04-T-ERC-03 in the comments section of the filing. If you have any questions, please contact me at steven.j.sample4.civ@mail.mil or at (703) 571-0076.

Sincerely,

Steven J. Sample
Executive Director
Military Aviation and Installation
Assurance Siting Clearinghouse

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April 5, 2021

Commissioner Randy Stinson
Ellis County
600 N Interstate 45 Business
Palmer, Texas 75152

Re: Oncor Electric Delivery Company's Proposed Old Country Switch 345 kV Tap Transmission Line Project in Ellis County, Texas

Dear Commissioner Stinson:

Oncor Electric Delivery Company LLC (Oncor) proposes to construct a 345 kilovolt (kV) transmission line between the proposed Oncor Old Country Switch and Oystercatcher Solar's facilities in Ellis County. The proposed Oncor Old Country Switch will be located along the existing Oncor 345 kV Transmission Line approximately two miles to the west of Interstate Highway 35E and approximately 0.3 miles to the east of Farm to Market Road (FM) 876. The Oystercatcher Plant Switch is located proximal to the intersection of Iola Lane and L R Campbell Road approximately 3.5 miles to the north-northwest of Italy, Texas. The distance between these project endpoints as shown in the attached map is approximately three miles.

Freese and Nichols, Inc. is preparing an Environmental Assessment (EA) and Alternative Route Analysis to support an application for a Certificate of Convenience and Necessity (CCN) from the Public Utility Commission of Texas (PUCT). Freese and Nichols is currently in the process of gathering data on the existing environment and identifying environmental land use constraints within the project study area that will be used in the creation of an environmental and land use constraints map. Freese and Nichols will identify potential alternative routes that consider environmental and land use constraints.

Freese and Nichols is requesting that your office provide environmental and land use constraints information regarding existing or planned land development projects, city projects, or other areas of interest to the County within the project study area. Your comments will be an important consideration in the evaluation of alternative routes and in the assessment of impacts. Upon certification of the final route for the proposed project, Oncor will determine the need for other approvals and/or permits. If your jurisdiction has approvals and/or permits that would apply to this project, please identify them in response to this inquiry. If permits are required from your office, Oncor will contact your office following certification of this project.

Thank you for your assistance with this transmission line project. If you have any questions or require additional information, please contact me at (817) 735-7332 or Kimberly.Buckley@freese.com. Your earliest reply will be appreciated.

Sincerely,
FREESE AND NICHOLS, INC.

Kimberly Buckley

Kimberly Buckley, PG
Associate, Project Manager

Attachment

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April 5, 2021

Commissioner Lane Grayson
Ellis County
1400 Oak Grove Road
Ennis, Texas 75119

Re: Oncor Electric Delivery Company's Proposed Old Country Switch 345 kV Tap Transmission Line Project in Ellis County, Texas

Dear Commissioner Grayson:

Oncor Electric Delivery Company LLC (Oncor) proposes to construct a 345 kilovolt (kV) transmission line between the proposed Oncor Old Country Switch and Oystercatcher Solar's facilities in Ellis County. The proposed Oncor Old Country Switch will be located along the existing Oncor 345 kV Transmission Line approximately two miles to the west of Interstate Highway 35E and approximately 0.3 miles to the east of Farm to Market Road (FM) 876. The Oystercatcher Plant Switch is located proximal to the intersection of Iola Lane and L R Campbell Road approximately 3.5 miles to the north-northwest of Italy, Texas. The distance between these project endpoints as shown in the attached map is approximately three miles.

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Thank you for your assistance with this transmission line project. If you have any questions or require additional information, please contact me at (817) 735-7332 or Kimberly.Buckley@freese.com. Your earliest reply will be appreciated.

Sincerely,
FREESE AND NICHOLS, INC.

Kimberly Buckley

Kimberly Buckley, PG
Associate, Project Manager

Attachment

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April 5, 2021

Commissioner Paul Perry
Ellis County
933 College Street
Italy, Texas 76651

Re: Oncor Electric Delivery Company's Proposed Old Country Switch 345 kV Tap Transmission Line Project in Ellis County, Texas

Dear Commissioner Perry:

Oncor Electric Delivery Company LLC (Oncor) proposes to construct a 345 kilovolt (kV) transmission line between the proposed Oncor Old Country Switch and Oystercatcher Solar's facilities in Ellis County. The proposed Oncor Old Country Switch will be located along the existing Oncor 345 kV Transmission Line approximately two miles to the west of Interstate Highway 35E and approximately 0.3 miles to the east of Farm to Market Road (FM) 876. The Oystercatcher Plant Switch is located proximal to the intersection of Iola Lane and L R Campbell Road approximately 3.5 miles to the north-northwest of Italy, Texas. The distance between these project endpoints as shown in the attached map is approximately three miles.

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Thank you for your assistance with this transmission line project. If you have any questions or require additional information, please contact me at (817) 735-7332 or Kimberly.Buckley@freese.com. Your earliest reply will be appreciated.

Sincerely,
FREESE AND NICHOLS, INC.

Kimberly Buckley

Kimberly Buckley, PG
Associate, Project Manager

Attachment

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April 5, 2021

Commissioner Kyle Butler
Ellis County
1011 Eastgate
Midlothian, Texas 76065

Re: Oncor Electric Delivery Company's Proposed Old Country Switch 345 kV Tap Transmission Line Project in Ellis County, Texas

Dear Commissioner Butler:

Oncor Electric Delivery Company LLC (Oncor) proposes to construct a 345 kilovolt (kV) transmission line between the proposed Oncor Old Country Switch and Oystercatcher Solar's facilities in Ellis County. The proposed Oncor Old Country Switch will be located along the existing Oncor 345 kV Transmission Line approximately two miles to the west of Interstate Highway 35E and approximately 0.3 miles to the east of Farm to Market Road (FM) 876. The Oystercatcher Plant Switch is located proximal to the intersection of Iola Lane and L R Campbell Road approximately 3.5 miles to the north-northwest of Italy, Texas. The distance between these project endpoints as shown in the attached map is approximately three miles.

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April 5, 2021

Judge Todd Little
Ellis County
101 West Main Street
Waxahachie, Texas 75165

Re: Oncor Electric Delivery Company's Proposed Old Country Switch 345 kV Tap Transmission Line Project in Ellis County, Texas

Dear Judge Little:

Oncor Electric Delivery Company LLC (Oncor) proposes to construct a 345 kilovolt (kV) transmission line between the proposed Oncor Old Country Switch and Oystercatcher Solar's facilities in Ellis County. The proposed Oncor Old Country Switch will be located along the existing Oncor 345 kV Transmission Line approximately two miles to the west of Interstate Highway 35E and approximately 0.3 miles to the east of Farm to Market Road (FM) 876. The Oystercatcher Plant Switch is located proximal to the intersection of Iola Lane and L R Campbell Road approximately 3.5 miles to the north-northwest of Italy, Texas. The distance between these project endpoints as shown in the attached map is approximately three miles.

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April 5, 2021

Sylvia Stanford-Smith
Ellis County Historical Commission
101 West Main Street
Waxahachie, Texas 75165

Re: Oncor Electric Delivery Company's Proposed Old Country Switch 345 kV Tap Transmission Line Project in Ellis County, Texas

Dear Chairman Stanford-Smith

Oncor Electric Delivery Company LLC (Oncor) proposes to construct a 345 kilovolt (kV) transmission line between the proposed Oncor Old Country Switch and Oystercatcher Solar's facilities in Ellis County. The proposed Oncor Old Country Switch will be located along the existing Oncor 345 kV Transmission Line approximately two miles to the west of Interstate Highway 35E and approximately 0.3 miles to the east of Farm to Market Road (FM) 876. The Oystercatcher Plant Switch is located proximal to the intersection of Iola Lane and L R Campbell Road approximately 3.5 miles to the north-northwest of Italy, Texas. The distance between these project endpoints as shown in the attached map is approximately three miles.

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Freese and Nichols is requesting that your office provide environmental and land use constraints information regarding existing or planned land development projects, city projects, or other areas of interest to the Ellis County Historical Commission within the project study area. Your comments will be an important consideration in the evaluation of alternative routes and in the assessment of impacts. Upon certification of the final route for the proposed project, Oncor will determine the need for other approvals and/or permits. If your jurisdiction has approvals and/or permits that would apply to this project, please identify them in response to this inquiry. If permits are required from your office, Oncor will contact your office following certification of this project.

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April 5, 2021

Rob Lowe
Southwest Region Regional Administrator
FAA Southwest Region
10101 Hillwood Parkway
Fort Worth, Texas 76177

Re: Oncor Electric Delivery Company's Proposed Old Country Switch 345 kV Tap Transmission Line Project in Ellis County, Texas

Dear Regional Administrator Lowe:

Oncor Electric Delivery Company LLC (Oncor) proposes to construct a 345 kilovolt (kV) transmission line between the proposed Oncor Old Country Switch and Oystercatcher Solar's facilities in Ellis County. The proposed Oncor Old Country Switch will be located along the existing Oncor 345 kV Transmission Line approximately two miles to the west of Interstate Highway 35E and approximately 0.3 miles to the east of Farm to Market Road (FM) 876. The Oystercatcher Plant Switch is located proximal to the intersection of Iola Lane and L R Campbell Road approximately 3.5 miles to the north-northwest of Italy, Texas. The distance between these project endpoints as shown in the attached map is approximately three miles.

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Freese and Nichols is requesting that your office provide environmental and land use constraints information regarding existing or planned land development projects, city projects, or other areas of interest to the FAA Southwest Region within the project study area. Your comments will be an important consideration in the evaluation of alternative routes and in the assessment of impacts. Upon certification of the final route for the proposed project, Oncor will determine the need for other approvals and/or permits. If your jurisdiction has approvals and/or permits that would apply to this project, please identify them in response to this inquiry. If permits are required from your office, Oncor will contact your office following certification of this project.

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Kimberly Buckley

Kimberly Buckley, PG
Associate, Project Manager

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April 5, 2021

Lisa Ryan
Southwest Region Deputy Regional Administrator
FAA Southwest Region
10101 Hillwood Parkway
Fort Worth, Texas 76177

Re: Oncor Electric Delivery Company's Proposed Old Country Switch 345 kV Tap Transmission Line Project in Ellis County, Texas

Dear Deputy Regional Administrator Ryan:

Oncor Electric Delivery Company LLC (Oncor) proposes to construct a 345 kilovolt (kV) transmission line between the proposed Oncor Old Country Switch and Oystercatcher Solar's facilities in Ellis County. The proposed Oncor Old Country Switch will be located along the existing Oncor 345 kV Transmission Line approximately two miles to the west of Interstate Highway 35E and approximately 0.3 miles to the east of Farm to Market Road (FM) 876. The Oystercatcher Plant Switch is located proximal to the intersection of Iola Lane and L R Campbell Road approximately 3.5 miles to the north-northwest of Italy, Texas. The distance between these project endpoints as shown in the attached map is approximately three miles.

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FREESE AND NICHOLS, INC.

Kimberly Buckley

Kimberly Buckley, PG
Associate, Project Manager

Attachment

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

Southwest Region

10101 Hillwood Parkway
Fort Worth, TX 76177

April 16, 2021

Kimberly Buckley
Freese and Nichols
801 Cherry Street
Suite 2800
Fort Worth, TX 76102

Dear Ms. Buckley:

This is in response to your April 5, 2021, correspondence concerning Oncor Electric Delivery Company proposing to construct a 345-kilovolt transmission line in Ellis County, Texas. You requested information regarding environmental and land use constraints within the study area. You also requested information about required approvals or permits.

As set forth in Title 14 of the Code of Federal Regulations Part 77, Objects that Affect the Navigable Airspace, the prime concern of the Federal Aviation Administration is the effect of certain proposed construction on the safe and efficient use of the navigable airspace.

To accomplish this mission, aeronautical studies are conducted based on information provided by sponsors on FAA Form 7460-1, Notice of Proposed Construction or Alteration. If your organization is planning to sponsor any construction or alterations that may affect navigable airspace, you must file FAA Form 7460-1 electronically via https://oeaaa.faa.gov/oeaaa/external/portal.jsp.

For additional information and assistance, please feel free to contact the Obstruction Evaluation Group at 10101 Hillwood Parkway, Fort Worth, Texas 76177 or (817) 222-5954.

Sincerely,

Rob Lowe
Regional Administrator, Southwest Region

CC: Obstruction Evaluation Group, AJV-15

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April 5, 2021

Tony Robinson
Regional Administrator
FEMA Region VI
FRC 800 North Loop 288
Denton, Texas 76209

Re: Oncor Electric Delivery Company's Proposed Old Country Switch 345 kV Tap Transmission Line Project in Ellis County, Texas

Dear Regional Administrator Robinson:

Oncor Electric Delivery Company LLC (Oncor) proposes to construct a 345 kilovolt (kV) transmission line between the proposed Oncor Old Country Switch and Oystercatcher Solar's facilities in Ellis County. The proposed Oncor Old Country Switch will be located along the existing Oncor 345 kV Transmission Line approximately two miles to the west of Interstate Highway 35E and approximately 0.3 miles to the east of Farm to Market Road (FM) 876. The Oystercatcher Plant Switch is located proximal to the intersection of Iola Lane and L R Campbell Road approximately 3.5 miles to the north-northwest of Italy, Texas. The distance between these project endpoints as shown in the attached map is approximately three miles.

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Sincerely,
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Kimberly Buckley

Kimberly Buckley, PG
Associate, Project Manager

Attachment

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April 5, 2021

Moises Dugan
Deputy Administrator
FEMA Region VI
FRC 800 North Loop 288
Denton, Texas 76209

Re: Oncor Electric Delivery Company's Proposed Old Country Switch 345 kV Tap Transmission Line Project in Ellis County, Texas

Dear Deputy Administrator Dugan:

Oncor Electric Delivery Company LLC (Oncor) proposes to construct a 345 kilovolt (kV) transmission line between the proposed Oncor Old Country Switch and Oystercatcher Solar's facilities in Ellis County. The proposed Oncor Old Country Switch will be located along the existing Oncor 345 kV Transmission Line approximately two miles to the west of Interstate Highway 35E and approximately 0.3 miles to the east of Farm to Market Road (FM) 876. The Oystercatcher Plant Switch is located proximal to the intersection of Iola Lane and L R Campbell Road approximately 3.5 miles to the north-northwest of Italy, Texas. The distance between these project endpoints as shown in the attached map is approximately three miles.

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Kimberly Buckley

Kimberly Buckley, PG
Associate, Project Manager

Attachment

**Kimberly Buckley**

---

**From:** Cook, Charles <Charles.Cook4@fema.dhs.gov>
**Sent:** Friday, April 30, 2021 8:58 AM
**To:** Kimberly Buckley
**Cc:** Minshall, Kelly; Moore, Kande; Cook, Charles
**Subject:** FW: IMS 64678 - Oncor Electric Delivery Company's Proposed Old Country Switch 345 kV Tap Transmission Line Project in Ellis County, Tx
**Attachments:** 21-4-64678-1.pdf

**Importance:** High



Good morning Ms. Buckley, please ensure that you are working with the local floodplain manager to obtain any needed floodplain permits.

Thank you,

Charlie Cook, CFM
Floodplain Management & Insurance Branch Chief
Mitigation Division | Region 6 | FEMA
800 North Loop 288, Denton, TX 76209
O: 940.898.5400 | Cell: 940.268.9952
Email: Charles.Cook4@FEMA.DHS.Gov
**Stay connected:**

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April 5, 2021

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FEMA Region VI
FRC 800 North Loop 288
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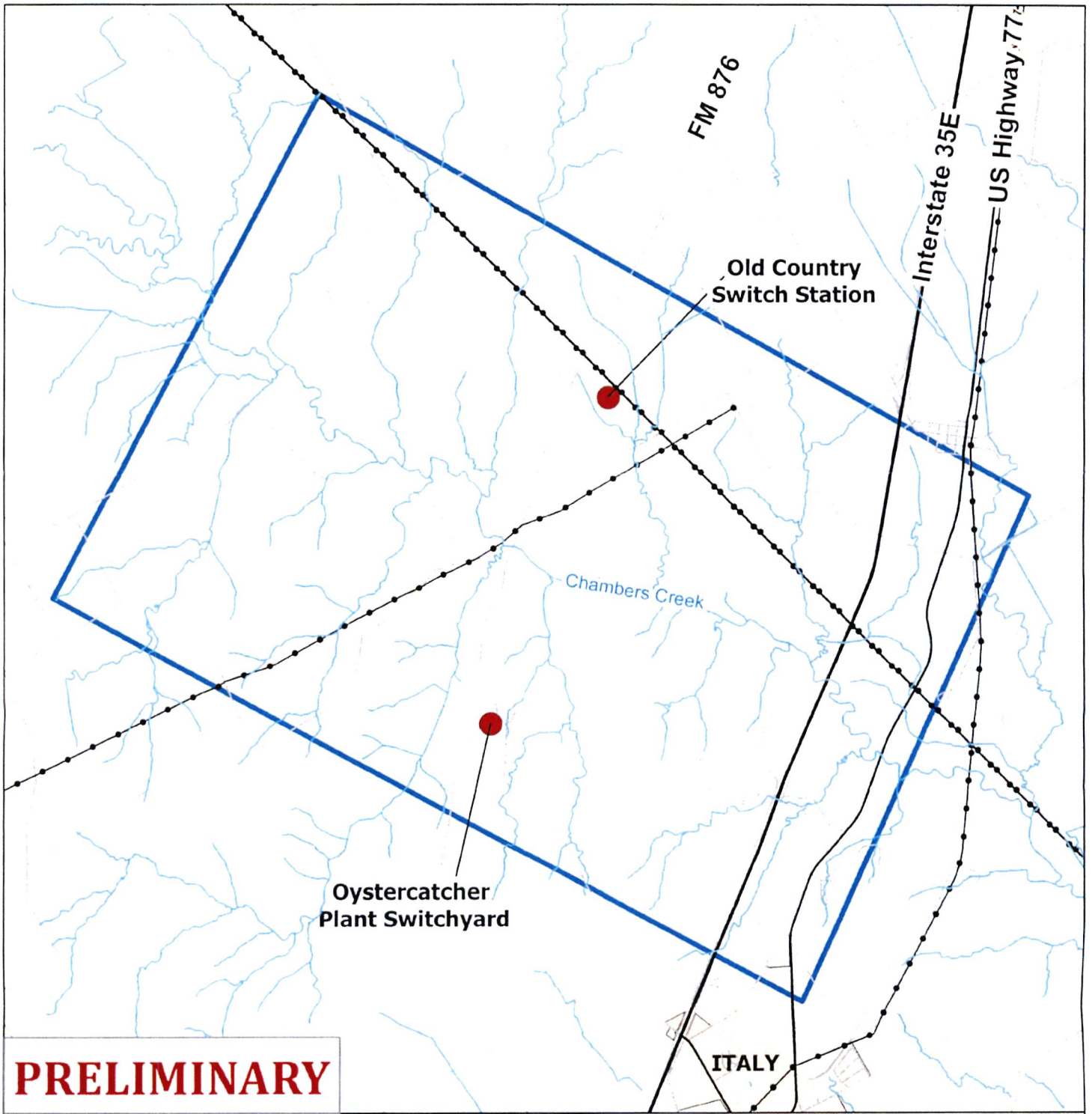
Attachment

21·4·64678




**PRELIMINARY**

ONCOR

# OLD COUNTRY SWITCH 345kV TAP TRANSMISSION LINE PROJECT

FREESE AND NICHOLS

0 0.25 0.5 1 Miles

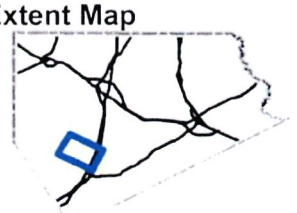
Note:
Data is for display purposes only. All features and boundaries have been approximated from public resources.

N W E S

**Legend**

- Proposed End Points
- Study Area
- Existing Transmission Line
- Major Roads
- Minor Roads
- Incorporated City Limits

**Extent Map**



**Vicinity Map**