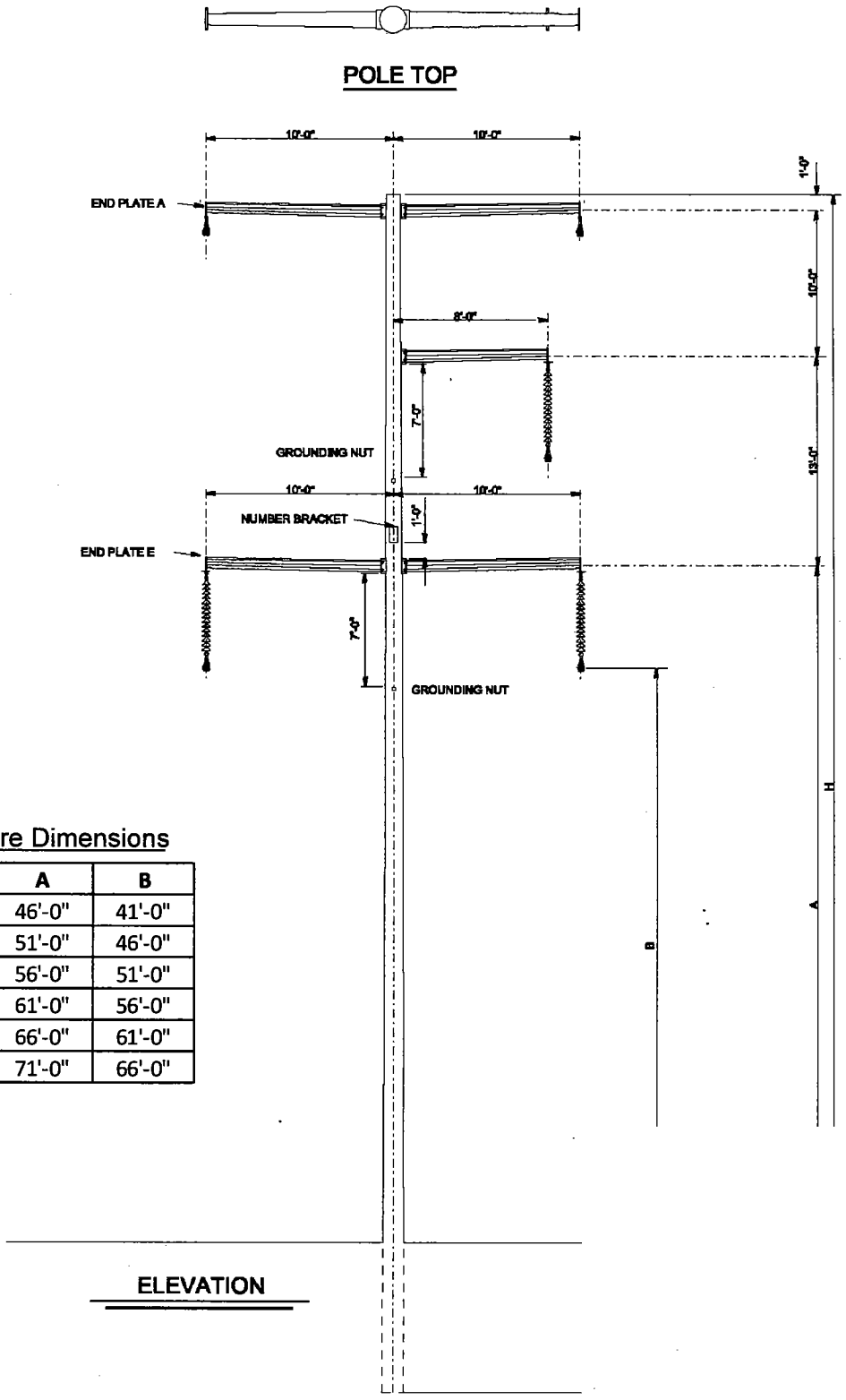

Structure Dimensions

H	A	B
85'-0"	46'-0"	41'-0"
90'-0"	51'-0"	46'-0"
95'-0"	56'-0"	51'-0"
100'-0"	61'-0"	56'-0"
105'-0"	66'-0"	61'-0"
110'-0"	71'-0"	66'-0"

Wheeler County Substation to Coburn Creek
Substation 115 kV Transmission Line Project

Figure 1-2

TYPICAL 115 KV MONOPOLE TANGENT STRUCTURE

POWER ENGINEERS

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1.4.2 Construction

After each pole location has been surveyed and the ROW cleared, a single hole will be augured into the ground at each monopole location. The hole depth at each location will be determined by the geotechnical profile, terrain, and pole height. Each steel pole will be assembled on the ground near its designated location and then lifted by crane and aligned with structure arms oriented perpendicular to the transmission line centerline. For angle structures, towers will be set with structure arms oriented on the angle bisector. The steel poles will be backfilled with natural soil to provide stability. Excavated material will be spread onsite or disposed offsite in accordance with any federal, state, and local regulations.

Concrete foundations will be required at dead-ends and high angle monopole locations. After the hole is augured, a rebar reinforced concrete foundation is poured. The monopoles are then attached to the foundation. After the monopoles are erected, the insulators and hardware assemblies are then attached. After a series of poles are constructed, the conductor and shield wire is strung and tensioned.

Guard structures are proposed during the line stringing phase where the transmission line crosses existing transmission and distribution lines, telephone lines, and roadways. Once the transmission line is permanently attached, the guards are removed.

1.4.3 Cleanup

ROW cleanup activities include restoration and will be conducted concurrently with the completion of each series of monopoles as ROW access requirements allow. All equipment, debris, culverts, and temporary environmental controls will be removed. ROW restoration will be completed and includes revegetation with native grass species as necessary to stabilize the soil, and the construction of any necessary permanent environmental controls. The timeliness of these restoration activities is expected to prevent soil erosion.

1.5 MAINTENANCE CONSIDERATIONS

Maintenance of the ROW is typically completed on an interval of two to four years depending on the rate of vegetation regrowth. Maintenance activities include mowing the entire ROW and the application of herbicides to stumps. The application of herbicides will be conducted within federal, state, and local guidelines.

1.6 AGENCY ACTIONS

Numerous federal, state, and local regulatory agencies and organizations have developed rules and regulations regarding the routing and potential impacts associated with the construction of the Project. This section describes the major regulatory agencies and additional issues that are involved in project planning and permitting of transmission lines in Texas. POWER solicited comments from various regulatory entities during the development of this document, and records of correspondence and additional discussions with these agencies and organizations are provided in Appendix A.

1.6.1 Public Utility Commission of Texas

The PUC regulates the routing of transmission lines in Texas under PURA § 37.056(c)(4)(A)-(D). The PUC regulatory guidelines for routing transmission lines in Texas include:

- P.U.C. SUBST. R. 25.101(b)(3)(B);
- P.U.C. PROC. R. 22.52(a)(4);
- Policy of prudent avoidance; and
- CCN application requirements.

This EA has been prepared by POWER in support of SPS's CCN application for PUC approval of the Project.

1.6.2 United States Army Corps of Engineers

Under Section 10 of the Rivers and Harbors Act of 1899, 33 United States Code (U.S.C.) § 403, the United States Army Corp of Engineers (USACE) regulates all work or structures in or affecting the course, condition or capacity of navigable Waters of the United States (US). Under Section 404 of the Clean Water Act (CWA), 33 U.S.C. § 1344, the USACE regulates the discharge of dredged and fill material into all Waters of the US, including associated wetlands.

The Project is located within the jurisdiction of the USACE - Tulsa District. No navigable waters were identified within the study area that would necessitate a Section 10 Permit for this Project. If construction of the Project impacts waters of the US, or jurisdictional wetlands as defined in Section 404 of the CWA, then the Project will likely meet the criteria of the Nationwide Permit (NWP) No. 12 - Utility Line Activities, which applies to activities associated with any cable, line, or wire for the transmission of electrical energy. In the unlikely event that the proposed impacts of the Project exceed the criteria established under General Condition 13 or other regional conditions listed under the NWP 12, then an Individual Permit (IP) may be required.

1.6.3 United States Fish and Wildlife Service

The United States Fish and Wildlife Service (USFWS) enforces federal wildlife laws and provides comments on proposed construction projects with a federal nexus under the National Environmental Policy Act (NEPA) and within the framework of several federal laws including the Endangered Species Act (ESA), Migratory Bird Treaty Act (MBTA), and Bald and Golden Eagle Protection Act (BGEPA).

POWER reviewed the Texas Natural Diversity Database (TXNDD) records of federal and state listed species occurrences and/or designated critical habitats and considered these during the route development process. The absence of recorded occurrences for individual listed species is not an indication that the species or potential suitable habitat for the species is not present along the approved route. Upon PUC approval of a route and prior to construction, pedestrian surveys will be completed to identify any suitable habitat for federally listed species. If suitable habitat is noted, then informal consultation with the USFWS – Arlington Ecological Services Field Office may be completed to determine the need for any required species-specific surveys and/or permitting under Section 7 of the ESA.

1.6.4 Federal Aviation Administration

According to Federal Aviation Administration (FAA) regulations, Part 77, the construction of a transmission line requires FAA notification if tower structure height exceeds 200 feet or the height of an imaginary surface extending outward and upward at one of the following slopes:

- A 100:1 slope 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;
- A 50:1 slope for a horizontal distance of 10,000 feet from the nearest runway of a public or military airport where no runway is longer than 3,200 feet in length; or
- A 25:1 slope for a horizontal distance of 5,000 feet for heliports.

The PUC CCN application also requires listing private airports within 10,000 feet of any alternative route centerline. After PUC route approval, and if any of the FAA notification criteria are met for the approved route, a Notice of Proposed Construction or Alteration, FAA Form 7460-1, will be completed and submitted to the FAA Southwest Regional Office in Fort Worth, Texas at least 30 days prior to construction.

1.6.5 Texas Parks and Wildlife Department

The Texas Parks and Wildlife Department (TPWD) is the state agency with primary responsibility for protecting the state's fish and wildlife resources in accordance with Texas Parks and Wildlife Code (TPWC) § 12.0011(b). POWER solicited comment from TPWD during the scoping phase of the Project, and a copy of this EA will be submitted to TPWD when the CCN application is filed with the PUC.

1.6.6 Floodplain Management

Flood Insurance Rate Maps, published by the Federal Emergency Management Agency (FEMA), were not available for review to determine the floodplain boundaries within the study area. Wheeler County does not participate in the FEMA floodplain program and the county has never been mapped. The proposed Project is not anticipated to create any significant permanent changes in the existing topographical grades and should not significantly increase the stormwater runoff within the study area. Wheeler County does not have a designated local floodplain administrator.

1.6.7 Texas Commission on Environmental Quality

The construction of the Project might require a Texas Pollution Discharge Elimination System General Construction Permit (TX150000) as implemented by the Texas Commission on Environmental Quality (TCEQ) under the provisions of Section 402 of the CWA and Chapter 26 of the Texas Water Code. The TCEQ has developed a three-tiered approach for implementing this permit which is dependent on the acreage of disturbance. No permitting is required for land disturbances of less than one acre (Tier I). If more than one acre, but less than five acres are disturbed, then a Stormwater Pollution Prevention Plan (SWPPP) must be developed and implemented during construction activities accompanied with posting a site notice and sending a notification to the Municipal Separate Sewer System Operator (Tier II). If more than five acres of land are disturbed, then the requirements mentioned above for Tier II are necessary and the submittal of a Notice of Intent (NOI) and Notice of Termination (NOT) to the TCEQ is also required (Tier III).

Once a route is approved by the PUC, the proposed acreage of ground disturbance will be determined and the appropriate Tier and conditions of the TX150000 permit will be evaluated.

A Section 401 Water Quality Certificate from the TCEQ may also be required if the Project requires a USACE IP. States have the authority to review federally permitted or licensed activities that may result in a discharge of pollutants to the waters of the US. As previously discussed, a USACE IP is not anticipated for this Project.

1.6.8 Texas Historical Commission

Cultural resources are protected by federal and state laws if they have some level of significance under the criteria of the National Register of Historic Places (NRHP) (36 Code of Federal Regulations [CFR] Part 60) or under state guidance (Texas Administrative Code [TAC], Title 13, Part 2, Chapter 26.7-8). The Texas Historical Commission (THC) was contacted by POWER to identify known cultural resource sites within the study area boundary. POWER also reviewed Texas Archeological Research Laboratory (TARL) records for known locations of cultural resource sites. Once a route is approved by the PUC, additional coordination with the THC might determine the need for archeological surveys or additional permitting requirements. Even if no additional surveys are required, SPS proposes to implement an unanticipated discovery procedure during construction activities. If artifacts are discovered during construction, activities will cease and SPS will notify the State Historic Preservation Office (SHPO) for additional consultation.

1.6.9 Texas Department of Transportation

The Texas Department of Transportation (TxDOT) has been notified of the Project. If the route approved by the PUC crosses or occupies TxDOT ROW, it will be constructed in accordance with the rules, regulations, and policies of TxDOT. Best management practices (BMP) will be used, as required, to minimize erosion and sedimentation resulting from the construction. Revegetation will occur as required under the "Revegetation Special Provisions" and contained in TxDOT form 1023 (Rev. 9-93). Traffic control measures will comply with applicable portions of the Texas Manual of Uniform Traffic Control Devices.

1.6.10 Texas General Land Office

The Texas General Land Office (GLO) requires a miscellaneous easement for ROW within any state owned riverbeds or navigable streams or tidally influenced waters. Coordination with the GLO will be completed after PUC approval of a route; however, no GLO easement is anticipated for this Project because no rivers or navigable streams are crossed by any of the alternative routes.

2.0 DESCRIPTION OF THE STUDY AREA

2.1 ROUTING STUDY METHODOLOGY

The objective of this EA was to develop and evaluate an adequate number of geographically diverse alternative transmission line routes that comply with PURA § 37.056(c)(4)(A)-(D), P.U.C. PROC. R. 22.52(a)(4), and P.U.C. SUBST. R. 25.101(b)(3)(B), including the PUC's policy of prudent avoidance. The study approach utilized by POWER for this EA included study area delineation based on the Project endpoints; identification and characterization of existing land use and environmental constraints; and identification of areas of potential routing possibilities located within the study area. POWER identified potentially affected resources and considered each during the route development process. Regulatory agency, local official, and public meeting comments were also incorporated into the alternative route development process. Modifications, additions, or deletions of preliminary alternative segments were made while considering resource sensitivities, governmental agency guidance, and public input and comments. Feasible and geographically diverse alternative routes were then selected for analysis and comparison using evaluation criteria to determine potential impacts to existing land use and environmental resources. The EA development process culminated with the ranking of the top nine alternative routes by POWER from an environmental and land use perspective. With this recommendation from POWER, SPS also considered engineering and construction constraints, grid reliability and security issues, and estimated costs to identify one alternative route that they believe best addresses the requirements of PURA and PUC Substantive Rules. This alternative route, as well as other alternative routes that provide geographic diversity and sufficient routing options, will be submitted to the PUC in the CCN application.

2.1.1 Study Area Boundary Delineation

The first step in the development of alternative routes was to select a study area. This area needed to encompass the Project endpoints and include a sufficiently large area within which feasible, geographically diverse alternative routes could be located. The study area, which set boundaries for the data collection process, is located east of Wheeler in the Panhandle and encompasses portions of Wheeler County. Major physiographic features, jurisdictional boundaries, sensitive land uses and existing utility corridors helped to define the study area boundaries (see Figure 2-1).

The Project endpoints and the study area are described below and illustrated in Figure 2-1. The study area is oriented in a west to east direction with the Wheeler County Substation located in the southwestern portion of the study area, and the Coburn Creek Substation located in the northeastern corner of the study area. More specifically, the existing Wheeler County Substation is located approximately 5.2 miles south-southwest of Wheeler and the new Coburn Creek Substation will be located along State Highway 152, approximately 7.5 miles east of Wheeler. The width of the study area from north to south is approximately seven miles, depending on the location of measurement, and the length of the study area from west to east is approximately nine miles, encompassing a total area of approximately 57 square miles.

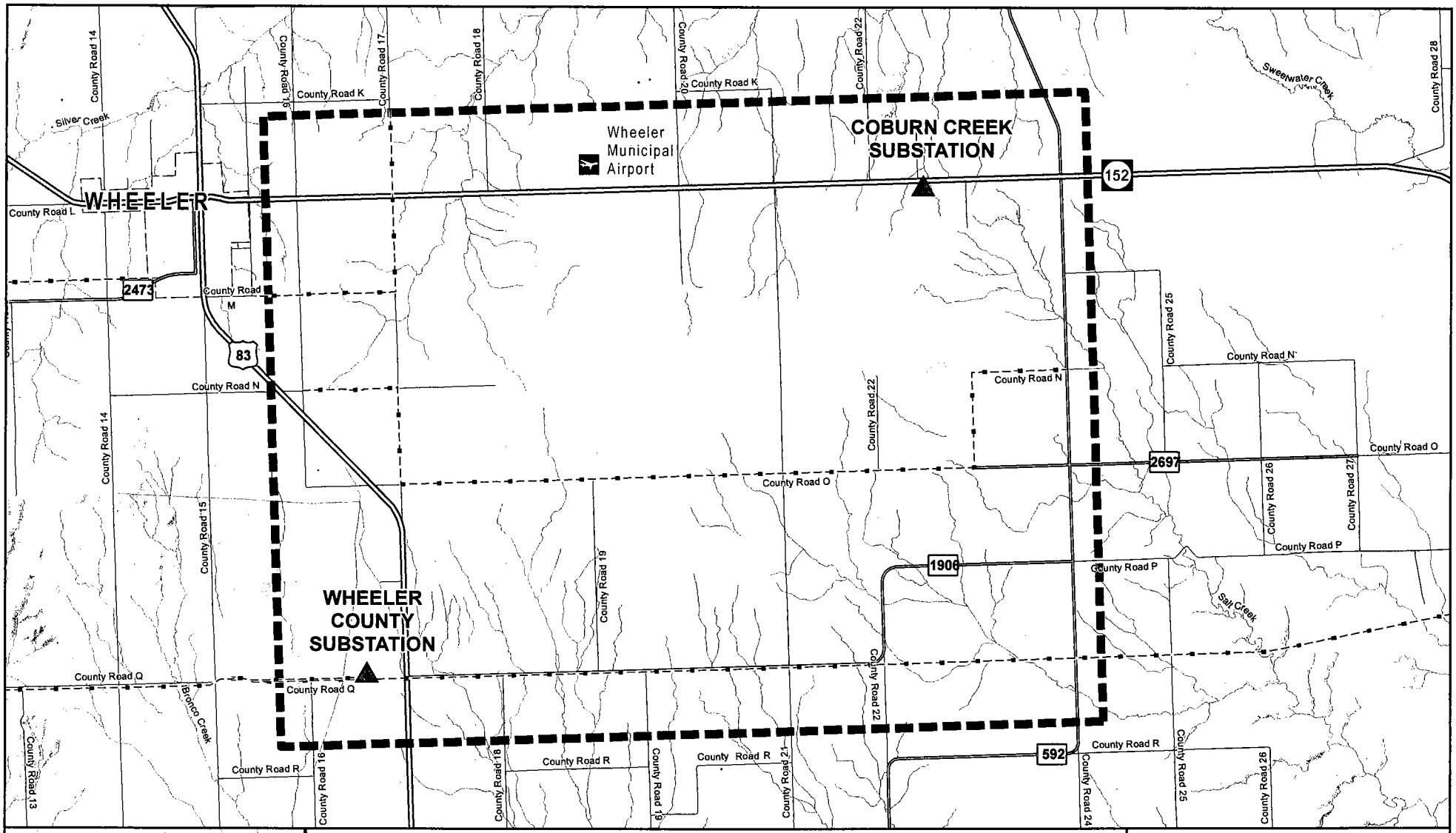
The northern and eastern study area boundary is primarily defined by the location of the proposed Coburn Creek Substation. The southern and western portion of the study area is primarily defined by the location of the existing Wheeler County Substation.

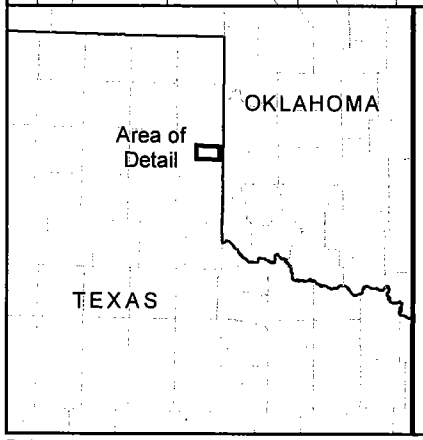
2.1.2 Base Map Development

After delineation of the study area, a project base map, overlain on United States Geological Survey (USGS) 7.5 minute topographic maps and aerial photography, was prepared and used to initially display resource data for the Project area. Resource data categories and factors that were determined appropriate for interpretation and analysis were selected and mapped. The base map provides a broad overview of various resource locations indicating obvious routing constraints and areas of potential routing opportunities.

Data typically displayed on the base map includes:

- Major land jurisdictions and uses;
- Major roads (including county roads (CR), farm-to-market (FM) roads, US Highways (US Hwy), State Highways (SH), and Interstate Highways (IH));
- Existing transmission line and pipeline corridors;
- Parks and wildlife management areas;
- Major political subdivision boundaries; and
- Lakes, reservoirs, rivers and ponds.





Legend

- Project Substation
- Existing Transmission Line
- US Highway
- State Highway
- Farm-to-Market / Ranch Road
- County Road
- Public Airport
- County Boundary
- Urban Areas
- River or Stream

Wheeler County Substation to Coburn Creek Substation 115 kV Transmission Line Project

Figure 2-1 Study Area Map

0 1.5 Miles

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Xcel Energy®

Date: 2/18/2014

Path: N:\Projects\131393_Wheeler\DD\GIS\Apps\EA\Fig_2-1_Study_Area.mxd

2.1.3 Evaluation Criteria

Land use and environmental evaluation criteria were developed to reflect accepted practices for routing electric transmission lines in the state of Texas (see Table 2-1). Emphasis was placed on acquiring information identified in PURA § 37.056(c)(4)(A)-(D), the PUC's standard CCN application and P.U.C. SUBST. R. 25.101, as well as the PUC's policy of prudent avoidance. Evaluation criteria were further refined based on data collection, reconnaissance surveys, and public input. The alternative route development process was conducted with consideration and incorporation of the evaluation criteria. Evaluation criteria data were reviewed, tabulated, and compared (see Section 4.0) for each resulting primary alternative route and with other factors, were ultimately used for the recommendation of the best alternative routes from an environmental and land use perspective (see Section 5.0), and identification of the alternative route that best addresses the requirements under PURA and PUC Substantive Rules.

TABLE 2-1 LAND USE AND ENVIRONMENTAL EVALUATION CRITERIA

Land Use
Length of alternative route
Number of habitable structures[1] within 300 feet of ROW centerline
Length of ROW using existing transmission line ROW
Length of ROW parallel to existing transmission line ROW
Length of ROW parallel to other existing ROW (highways, pipelines, railways, etc.)
Length of ROW parallel to apparent property lines[2]
Length of ROW through parks/recreational areas[3]
Number of parks/recreational areas[3] crossed by ROW centerline
Length of ROW through cropland
Length of ROW through pasture/rangeland
Length of ROW through land irrigated by traveling systems (rolling or pivot type)
Number of pipeline crossings
Number of transmission line crossings
Number of US and State highway crossings
Number of farm-to-market road crossings
Number of cemeteries within 1,000 feet of the ROW centerline
Number of FAA registered airports with at least one runway more than 3,200 feet in length located within 20,000 feet of ROW centerline
Number of FAA registered airports having no runway more than 3,200 feet in length located within 10,000 feet of ROW centerline
Number of private airstrips within 10,000 feet of the ROW centerline
Number of heliports within 5,000 feet of the ROW centerline
Number of commercial AM radio transmitters within 10,000 feet of the ROW centerline
Number of FM radio transmitters, microwave towers, and other electronic installations within 2,000 feet of ROW centerline
AESTHETICS
Estimated length of ROW within foreground visual zone[4] of US and State highways
Estimated length of ROW within foreground visual zone[4] of farm-to-market roads
Estimated length of ROW within foreground visual zone[4] of parks/recreational areas[3]
ECOLOGY
Length of ROW through upland woodlands

TABLE 2-1 LAND USE AND ENVIRONMENTAL EVALUATION CRITERIA

Length of ROW through bottomland/riparian woodlands
Length of ROW across mapped National Wetland Inventory wetlands
Length of ROW across known habitat of federally listed endangered or threatened species
Length of ROW across open water (lakes, ponds, playa lakes)
Number of stream crossings
Number of river crossings
Number of irrigation/drainage canal crossings
Length of ROW parallel (within 100 feet) to streams or rivers
Length of ROW across 100-year floodplains
CULTURAL RESOURCES
Number of recorded cultural resource sites crossed by ROW
Number of additional recorded cultural resource sites within 1,000 feet of ROW centerline
Number of National Register listed sites crossed by ROW centerline
Number of additional National Register listed sites within 1,000 feet of ROW centerline
Length of ROW across areas of high archeological site potential

Notes:
[1] Single-family and multi-family dwellings, mobile homes, apartment buildings, commercial structures, industrial structures, business structures, churches, hospitals, nursing homes, and schools, or other structures normally inhabited by humans or intended to be inhabited by humans on a daily or regular basis within 300 feet of the centerline of a transmission project of 230 kV or less.
[2] Apparent property lines created by existing roads, highways, or railroad ROWs are not "double-counted" in the length of ROW parallel to property lines criteria.
[3] Defined as parks and recreational areas owned by a governmental body or an organized group, club, or church within 1,000 feet of the centerline of the Project.
[4] One-half mile, unobstructed.

2.1.4 Data Collection and Constraints Mapping

Environmental and land use data used by POWER in the delineation and evaluation of alternative routes were drawn from a variety of sources, including readily available Geographic Information System (GIS) coverage with associated metadata; maps and published literature; information files and records from numerous federal, state, and local regulatory agencies; meetings with stakeholders; and multiple reconnaissance surveys of the study area. Data collected for each resource area was mapped within the study area utilizing GIS layers.

Maps and data layers reviewed include USGS 7.5 minute topographic maps (Environmental Systems Research Institute [Esri] 2011), National Wetland Inventory (NWI) maps, and TxDOT county highway maps. Appraisal district land parcel boundary data layers were provided by SPS and used to identify apparent property boundaries as paralleling possibilities. USGS 7.5 minute topographic maps and aerial photography (Esri 2011 and National Aerial Imagery Program [NAIP] 2012) were used as the background for several of the Project maps, including the initial base map, field maps, the public involvement display boards, and the environmental and land use constraints map.

In an effort to minimize potential impacts to sensitive environmental and land use features, a constraints mapping process was used in developing and refining possible alternative routes. The geographic locations of environmentally sensitive and other restrictive areas within the study area were identified and considered during alternative route development. These constraints were mapped on topographic base maps. The alternative routes presented in this report have been selected in a manner to reduce the potential impact to land use and environmentally sensitive areas including:

individual residences, congested urban areas, community facilities, subdivisions, airports, mobile irrigation systems, cemeteries, historic sites, archeological sites, wetlands and playa lakes, parks, churches, schools, and known occupied federally listed threatened and endangered species habitat.

2.1.5 Agency Consultation

A list was developed of federal, state, and local regulatory agencies, elected officials, and organizations to receive a consultation letter regarding the Project. The purpose of the letter was to inform the various agencies and officials of the Project and provide them with an opportunity to provide feedback regarding resources and potential issues within the study area. Various federal, state, and local agencies and officials that might have potential concerns and/or regulatory permitting requirements for the Project were contacted. POWER utilized websites from Wheeler county and telephone confirmations to identify local officials. Consultation letters were sent in September 2013. Copies of correspondence with the various state and federal regulatory agencies and local and county officials and other organizations and departments are included in Appendix A.

Agencies/officials contacted include:

FEDERAL

- Federal Aviation Administration
- Federal Emergency Management Agency
- National Park Service
- Natural Resources Conservation Service
- US Army Corps of Engineers
- US Department of Agriculture Farm Service Agency
- US Environmental Protection Agency
- US Fish and Wildlife Service

STATE

- Railroad Commission of Texas
- Texas Commission on Environmental Quality
- Texas Department of Transportation (Environmental Affairs Division, Planning and Programming)
- Texas General Land Office
- Texas Historical Commission
- Texas Parks and Wildlife Department
- Texas State Soil and Water Conservation Board
- Texas Water Conservation Association
- Texas Water Development Board

LOCAL and OTHER ORGANIZATIONS

- City Officials
- Wheeler County Farm Bureau
- County Officials
- Native Prairies Association of Texas
- Panhandle Regional Planning Commission
- Wheeler Independent School District

- Texas Agricultural Land Trust
- Texas Cave Management Association
- Texas Land Conservancy
- The Nature Conservancy

2.1.6 Reconnaissance Surveys

Reconnaissance surveys of the study area (conducted from publicly accessible areas) were conducted by POWER personnel to confirm the findings of the research and data collection activities, identify changes in land use occurring after the date of aerial photography, and identify potential unknown constraints that might not have been previously noted in the data. A reconnaissance survey of the study area was conducted on October 1-3, 2013.

2.2 COMMUNITY VALUES, LAND USE, AND SOCIOECONOMICS

Under PURA § 37.056(c)(4)(A)-(D), "community values" is a factor for consideration in siting a transmission line route; however, the term has not been defined by the PUC. The PUC's standard CCN application form requires information concerning the following items related to community values:

- Public open-house meeting(s);
- Approval or permits required from other governmental agencies;
- Brief description of the study area traversed;
- Habitable structures within 300 feet of the centerline for the 115 kV transmission line alternative routes;
- Amplitude modulation (AM) and frequency modulation (FM) radio, microwave, and other electronic installations in the study area;
- FAA-registered airstrips, private airstrips, and heliports located in the area;
- Irrigated pasture or croplands utilizing center-pivot or other traveling irrigation systems in the study area;
- Parks and recreation areas in the study area; and
- Historical and archeological sites in the study area.

In addition to these items, POWER also evaluated the proposed Project for community values and resources that may not be specified by the PUC, but that might be of importance to a particular community as a whole. In several dockets the PUC and Staff have used the following as a working definition: the term "community values" is defined as "a shared appreciation of an area or other natural resource by a national, regional, or local community." Examples of such a community resource could include a park or recreational area, historical or archeological sites, or a scenic vista (aesthetics). POWER mailed consultation letters to various local elected and appointed officials and hosted a public open-house meeting to identify and collect information regarding community values and community resources.

2.2.1 Land Jurisdiction

Jurisdiction does not necessarily represent ownership. Potential conflicts could arise from crossing jurisdictional boundaries, which were evaluated in this study area. The study area is located within the

jurisdictional boundaries of Wheeler County. The study area encompasses Wheeler County and is approximately 930 feet east of the City of Wheeler city limit.

2.2.2 Land Use

Existing land uses within the study area were identified and placed into the following categories: urban/developed, planned land use, agriculture, oil and gas facilities, transportation/aviation/utility features, and communication towers. Parks and recreation areas are discussed in Section 2.3. Land use information was primarily obtained through interpretation of aerial photographs, USGS topographical maps, and vehicular reconnaissance surveys from accessible public viewpoints. Planned land use features were limited to known features obtained from governmental entities and mobility authorities.

2.2.2.1 Urban/Developed

The urban/developed category represents concentrations of surface-disturbing land uses, which include habitable structures and other developed areas characterized with low, medium and high intensities. The various levels of development include a mix of residential, institutional, commercial, and/or industrial land uses. Developed low-, medium- and high-intensity areas were identified using aerial photograph interpretation and reconnaissance surveys. These classifications are defined below:

- **Developed Low-Intensity** areas typically include rural settings with single-family housing units.
- **Developed Medium-Intensity** areas typically include single-family housing units that are grouped in residential subdivisions and might include peripheral commercial structures.
- **Developed High-Intensity** areas typically include highly developed areas where people reside or work in high numbers. Examples include apartment complexes, row houses, and commercial/industrial parks. Areas with the highest concentration of development are typically located within or near the towns and communities in the study area.

The study area is predominantly rural, with a mixture of rangeland/pastureland, irrigated cropland, and where most of the habitable structures are associated with scattered rural properties.

Habitable structures were identified using aerial photographs and field reconnaissance surveys. The PUC definition of a habitable structure was used for this routing study. P.U.C. SUBST. R. 25.101(a)(3) defines habitable structures as "structures normally inhabited by humans or intended to be inhabited by humans on a daily or regular basis. Habitable structures include, but are not limited to, single-family and multi-family dwellings, mobile homes, apartment buildings, commercial structures, industrial structures, business structures, churches, hospitals, nursing homes, and schools."

The study area is located within two school districts, the Kelton Independent School District (ISD) and Wheeler ISD. One school was identified within the study area (TEA 2013).

2.2.2.2 Planned Land Use

The planned land use category identifies objectives and/or policies regarding land use goals and plans, including conservation easements, managed lands, and planned developments. Cities and counties typically prepare comprehensive land use plans to provide strategic direction for the

individual city or county. The Wheeler County website was reviewed and correspondence was submitted to county officials to identify any planned land use conflicts.

Conservation Easements

A conservation easement is a restriction property owners voluntarily place on specified uses of their property to protect natural, productive or cultural features. The property owner retains legal title to the property and determines the types of uses to allow and which to restrict. The property can still be bought, sold and inherited, but the conservation easement is tied to the land and binds all present and future owners to its terms and restrictions. Conservation easement language will vary as to the individual property owners' allowances for additional developments on the land. The land trusts facilitate the easements and ensure compliance with the specified terms and conditions.

The Texas Land Trust Council (TLTC) identifies several non-governmental groups that are land trusts for conservation easements within the Panhandle Plains Region. Specifically, the Nature Conservancy, Native Prairies Association of Texas, Texas Agricultural Land Trust, Texas Land Conservancy, and Texas Cave Management Association serve as land trusts within Wheeler County (TLTC 2013). A review of these and other non-governmental land trust groups did not identify any mapped conservation easements within the study area.

2.2.2.3 Agriculture

Agriculture is a significant segment of the economy throughout Texas, and the study area county has active agricultural sectors. Data from the United States Department of Agriculture's (USDA) National Agricultural Statistics Service's 2007 Census of Agriculture for the total market value and distribution of agricultural products sold as well as the number of farms in the study area county is compared against the 2002 data in Table 2-2.

TABLE 2-2 AGRICULTURE

COUNTY	TOTAL MARKET VALUE OF AGRICULTURAL PRODUCTS			DISTRIBUTION OF PRODUCTS (2007)		NUMBER OF FARMS		
	2002	2007	Change	Crop Sales	Livestock Sales	2002	2007	Change
Wheeler County	$94,022,000	$129,478,000	38%	6%	94%	565	507	-10%

Source: USDA 2007.

2.2.2.4 Oil and Gas Facilities

The study area is located in an area with multiple oil and gas fields. Data was obtained from the Railroad Commission of Texas (RRC) (2013) which provided a GIS layer for existing oil and gas wells, pipelines and supporting facilities. Data point categories were reviewed and included the following types: permitted locations; oil, gas, injection/disposal, core test, shut-in, brine mining, and water supply wells; observed oil wells; horizontal drain holes; and sidetrack well surface locations. The 2013 RRC dataset along with aerial photograph interpretation and field reconnaissance were used to identify and map existing oil and gas related facilities.

2.2.2.5 Transportation/Aviation/Utility Features

Transportation Features
Federal, state, and local roadways were identified using TxDOT county transportation maps, Texas Natural Resource Information System (TNRIS) data, and field reconnaissance surveys. The roadway transportation system within the study area includes the following major roadways: US Hwy 83 and SH 152. The roadway transportation within the study area also includes the following farm-to-market roads: FM 592, FM 1906 and FM 2697. Numerous county and local roads (paved and unpaved) were also identified.

The TxDOT's "Project Tracker," which contains detailed information by county for every project which is or could be scheduled for construction, was reviewed to identify any state roadway projects planned within the study area. In Wheeler County, notice to proceed with one roadway project, resurfacing of US 83 between SH 152 and FM 1046, was issued in October 2013 (TxDOT 2013). TxDOT did not identify any other roadway projects in Wheeler County through fiscal year 2015. It is anticipated that resurfacing activities will be complete before construction of the Project begins.

Aviation Features
Aviation facilities reviewed include public and private airports, airstrips, airfields and heliports. Review of the Dallas-Ft. Worth Sectional Aeronautical Chart (FAA 2013a) and the FAA database (FAA 2013b) were used to identify FAA registered facilities. One FAA registered public airport was identified within the study area. The Wheeler Municipal Airport is located along the northern edge of the study area, on the north side of SH 152, and features a 3,565-foot long asphalt runway (FAA 2013b). No other FAA registered public airports were identified within 20,000 feet of the study area boundary. No private FAA registered airports were identified within the study area or within 10,000 feet of the study area boundary. No FAA-registered heliports were identified within the study area or within 5,000 feet of the study area boundary (FAA 2013b).

In addition, review of USGS topographic maps, aerial photograph interpretation, and field reconnaissance surveys were used in an attempt to identify private airstrips within or near the study area. No private non-FAA registered airstrips were identified within the study area.

Utility Features
Utility features inventoried include existing electrical transmission lines, distribution lines, pipelines, water wells, and water tanks. Data sources used to identify existing electrical transmission and distribution lines include utility company and regional system maps, Ventyx data (Ventyx 2013), aerial imagery, USGS topographic maps, additional available planning documents, and field reconnaissance surveys. Transmission lines identified include one proposed 345 kV transmission line, two 230 kV transmission lines, one 115 kV transmission line, and one 69 kV transmission line. Distribution lines are prevalent throughout the developed portions of the study area; however, these features were not mapped or inventoried.

In addition, numerous water wells are located throughout the study area (Texas Water Development Board [TWDB] 2012).

2.2.2.6 Communication Towers

Review of the Federal Communication Commission (FCC) database (FCC 2012) indicated that no AM radio transmitters are within the study area or within 10,000 feet of the study area boundary (FCC 2012).

A review of the FCC indicated that there are no FM radio transmitters/microwave towers/other electronic installations within the study area or within 2,000 feet of the study area boundary (FCC 2012). However, during the field reconnaissance two other electronic installations were identified within the within study area. One communication tower was identified near the eastern edge of the study area boundary in Wheeler County (FCC 2012).

2.2.3 Socioeconomics

The study area covers approximately 57 square miles in Wheeler County. This section presents a summary of economic and demographic characteristics for the county and describes the socioeconomic environment of the study area. Literature sources reviewed include publications of the United States Bureau of the Census (USBOC) and the TWDB.

2.2.3.1 Population Trends

Wheeler County experienced a population growth of 2% between 2000 and 2010. By comparison, population at the state level increased by nearly 21% between 2000 and 2010 (USBOC 2000 and 2010). According to TWDB projections, Wheeler County is projected to experience an overall population decline during the next 30 years. Between 2010 and 2020, 2020 and 2030, and 2030 and 2040, population changes in Wheeler County are projected to be at -5%, less than 1%, and 1%, respectively. By comparison, the population of Texas is expected to experience population increases of 18%, 14%, and 12% over the next three decades, respectively (TWDB 2012). Table 2-3 presents past population trends and projections for Wheeler County and for the State of Texas.

TABLE 2-3 POPULATION TRENDS

STATE/COUNTY	PAST		PROJECTED		
	2000	2010	2020	2030	2040
Texas	20,851,820	25,145,561	29,650,388	33,712,020	37,734,422
Wheeler County	5,284	5,410	5,133	5,112	5,149

Sources: USBOC 2000 and 2010; TWDB 2012.

2.2.3.2 Employment

The civilian labor force (CLF) in Wheeler County increased by 5% (125 persons) between 2000 and 2011 despite population declines over the same period. By comparison, the CLF at the state level grew by 24% (2,348,476 persons) from 2000 to 2011 (USBOC 2000 and 2011). Table 2-4 presents the CLF for the study area county and the State of Texas for the years 2000 and 2011.

Between 2000 and 2011, the study area county experienced a 3.5% increase in its unemployment rate. By comparison, the State of Texas experienced a small increase in the unemployment rate from 2000 to 2011—6.1% to 7.3% (USBOC 2000 and 2011). Table 2-4 presents employment and unemployment data for the study area county and the State of Texas for the years 2000 and 2011.

TABLE 2-4 LABOR FORCE AND EMPLOYMENT

STATE/COUNTY	2000	2011
Texas		
Labor Force	9,830,559	12,179,035
Employment	9,234,372	11,288,597
Unemployment	596,187	890,438
Unemployment Rate	6.1%	7.3%
Wheeler County		
Labor Force	2,447	2,572
Employment	2,402	2,436
Unemployment	45	136
Unemployment Rate	1.8%	5.3%

Sources: USBOC 2000 and 2011.

2.2.3.3 Leading Economic Sectors

The major occupations in Wheeler County in 2011 are in the category of management, business, science, and arts occupations, followed by service occupations and natural resources, construction, and maintenance occupations (USBOC 2011). Table 2-5 presents the number of persons employed in each occupation category during 2011 in the study area county.

TABLE 2-5 OCCUPATIONS IN THE COUNTY WITHIN THE STUDY AREA

OCCUPATION	TOTAL NUMBER OF PERSONS
	Wheeler County
Management, business, science, and arts occupations	793
Service occupations	459
Sales and office occupations	369
Natural resources, construction, and maintenance occupations	459
Production, transportation, and material moving occupations	356

Source: USBOC 2011.

In 2000 and 2011, the industry that employed the most people in the study area county was educational services, and health care and social assistance. The transportation and warehousing, and utilities industry experienced the most growth in employment in Wheeler County from 2000 to 2011, with an increase of 103% (127 persons). Table 2-6 presents the number of persons employed in each of the industries in the study area county for the years 2000 and 2011.

TABLE 2-6 INDUSTRIES IN THE COUNTY WITHIN THE STUDY AREA

INDUSTRY GROUP	TOTAL NUMBER OF PERSONS	
	Wheeler County	
	2000	2011
Agriculture, forestry, fishing and hunting, and mining	424	539
Construction	128	159
Manufacturing	49	28
Wholesale trade	108	37
Retail trade	213	139
Transportation and warehousing, and utilities	123	250
Information	58	8
Finance and insurance, and real estate and rental and leasing	78	80
Professional, scientific and management, and administrative and waste management services	81	154
Educational services, and health care and social assistance	594	589
Arts, entertainment, and recreation, and accommodation and food services	221	178
Other services, except public administration	143	176
Public administration	182	99

Source: USBOC 2000 and 2011.

2.3 PARKS AND RECREATION AREAS

The PUC recognizes parks and recreational areas as those owned by a governmental body or an organized group, club, or church. Federal and state databases and county/local maps were reviewed to identify any parks and/or recreational areas within the study area. Field reconnaissance surveys were also conducted to identify any additional park or recreational areas.

2.3.1 National/State/County/Local Parks

No national, state, county, or local parks were identified within the study area. Recreational activities such as hunting and fishing might occur on private properties throughout the study area, but are not considered to be open to the general public.

2.3.2 Wildlife Viewing Trails

Review of the TPWD Panhandle Plains Wildlife Trail (PHP) indicates that there is one driving loop offering a total of two wildlife viewing sites within the study area. The North Forks River Loop provides six sites, with one of the sites located within the study area, the Greenhouse (TPWD 2013a). Each site provides a fee-based public access opportunity.

2.4 HISTORICAL (CULTURAL RESOURCE) VALUES

Section 37.056(c)(4)(A)-(D) of PURA incorporates historical and aesthetic values as a consideration when evaluating proposed electric transmission facilities. The PUC's standard application for a CCN further stipulates that known historical sites within 1,000 feet of an alternative route should be listed, mapped, and their distance from the centerline of the route documented in the application filed for consideration. Archeological sites within 1,000 feet of a route will be listed and their distance from the centerline documented, but they need not be shown on maps for the protection of the site. Sources consulted to identify known sites (national, state, or local commission) shall also be listed.

The THC is the state agency responsible for preservation of the state's significant cultural resources. The THC, working in conjunction with the TARL, maintains records of previously recorded cultural resource sites as well as records of previous field investigations. Information from the THC's Restricted Online Archeological Sites Atlas was acquired in addition to GIS shapefiles from TARL to identify and map locations of previously recorded cultural (archeological and historical) resources within the study area.

Together, archeological and historical sites are often referred to as cultural resources. Under the National Park Service's (NPS) standardized definitions, cultural resources include districts, sites, buildings, structures, or objects important to a culture, subculture, or community for scientific, traditional, religious, or other reasons. For this study, cultural resources have been divided into three major categories: archeological resources, historical resources, and cemeteries. These three categories correlate to the organization of cultural resource records maintained by the THC and TARL.

- **Archeological resources** are locations on the ground surface or buried within the earth where human activity has measurably altered or left deposits of physical remains (e.g., burnt rock middens, stone tools, petroglyphs, house foundations, bottles). Archeological resources can date to either prehistoric times or the historic era.

- **Historical Resources** typically include standing buildings (e.g., houses, barns, outbuildings), but can also include structures (dams, canals, bridges, roads, silos) and districts that are non-archeological in nature.

- **Cemeteries** are places of intentional human interment and may include large public burial grounds with multiple burials, small family plots with only a few burials, or individual grave sites. In some instances cemeteries may be designated as Historic Texas Cemeteries (HTC) by the THC and may be recognized with an Official Texas Historical Marker (OTHM). Other cemeteries may also be documented as part of the THC's Record, Investigate, and Protect (RIP) program.

2.4.1 Cultural Background

The study area is located within the Plains Cultural Resource Planning Region of the Texas Panhandle as delineated by the THC (Mercado-Allinger et al., 1996) as shown in Figure 2-2. Physiographically, the study area is located on the northeastern region of the North-Central Plains (Pertulla et al., 2004). This region is largely devoid of topographic relief, and what relief exists occurs primarily as low north-south ridges, small lake and playa basins, dunes, and dry valleys. Geologically, the North-Central Plains region dips slightly to the east and south, and is primarily underlain by

N

0 30 60 120 180 240

Miles

Source: Mercado- Allinger et. al., 1996

Legend

Cultural Resource Planning Region Boundary

County Boundary

Wheeler County Substation to Coburn Creek Substation 115 kV Transmission Line Project

Figure 2-2
Location of Study Area In Relation to the Cultural Resource Planning Regions of Texas

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Date: 2/18/2014

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bedrock formations of Eolian silts and fine sands (Bureau of Economic Geology [BEG] 1996). The majority of *in situ* prehistoric archeological deposits have been recorded in association with these features. Archeologists have divided the prehistoric occupation of the region into three main periods: the Paleoindian, Archaic, and Late Prehistoric or Ceramic (Johnson and Holliday 2004).

2.4.1.1 Prehistory

The prehistory of north Texas spans at least the last 11,500 years. The cultural chronology of the area is divided into three broad periods of cultural development based on changes evident in the archeological and environmental record. These three periods of human prehistory are called the Paleoindian, Archaic, and Late Prehistoric periods, each representing distinct technological adaptations to changing physical and cultural environments.

Paleoindian Period (11,500-8,000 Before Present [B.P.])
The Paleoindian Period in the Texas Panhandle has been further subdivided into the Clovis, Folsom, and Late Paleoindian phases based on distinctive projectile point types. The Clovis Period extended from approximately 11,500 to 11,000 years ago during the terminal Late Pleistocene. Thirteen Clovis-period occupation sites have been identified on the Llano Estacado, however, only three have *in situ* deposits; the Blackwater Draw #1 (Clovis type-site) in New Mexico, the Miami site northeast of Amarillo, and the Lubbock Lake occupation west of Lubbock. Each of these sites contained Clovis-type spear points found in association with mammoth remains indicating that the Clovis population was relying on the animals as an important food base. At the Lubbock Lake site south of the study area, at least six species of extinct megafauna were found exhibiting evidence that the sites were used as butchering or primary kill sites (Johnson and Holliday 2004).

Clovis cultures hunted big game out of base camps for short periods of time, but were highly mobile and archeological evidence suggests that groups camped in caves or under rock overhangs during the majority of the year and likely constructed simple shelters out of animal skins, brush and other readily available natural resources during the winter months (Derrick 2008).

The transition from the Clovis to Folsom Period was marked by a significant climatic and environmental change which continued into Late Paleoindian times. Average summer temperatures warmed from the average winter temperatures dropped with sustained freezing periods. Perennial streams persisted in the lower reaches of most draws, and ponds and marshes surrounded by lush vegetation began to form in the upper end of the draws. During this period, large bison thrived and congregated around the playas where food was plentiful, and the bison became the mainstay diet for the Folsom people (Johnson and Holliday 2004).

The Folsom population increased as indicated by the sharp rise in the number of archeological sites dating to this period (ca. 10,800 to 10,300 years ago). It also appears from archeological assemblages at sites such as Lipscomb, Lake Theo, and Lubbock Lake that Folsom people were occupying established camp sites for longer periods of time. Many of these campsites were in close proximity to the water sources frequented by the bison (Johnson and Holliday 2004).

The Late Paleoindian period (ca. 10,000 to 8,500 years ago) is characterized by a warming and drying trend that began during the Folsom Period. Available water tended to collect in playa basins and salinas (Johnson and Holliday 2004). The Late Paleonindian Period includes both the Plainview (ca. 10,000 years ago) and Firstview (8,600 years ago) occupational phases.

Plainview occupations in good stratigraphic context are known from five sites on, or near, the Llano Estacado. The Plainview type site is located in an abandoned stream channel in Running Water Draw west of Floydada. This site represents at least two large-scale bison kill events with Plainview type lanceolate points intermixed with deep bone beds. Other sites with Plainview points intermixed with substantial bison remains and stratified on top of Folsom age deposits include Ryan's site in Yellowhouse Draw west of Lubbock Lake, Lubbock Lake, Lake Theo, and Mark's Beach in Blackwater Draw west of Plainview. These sites indicate that the Plainview phase was generally a continuation of the earlier Folsom culture. This is represented in the archeological record by a modified spear point that lacked the characteristic fluting present on the Clovis and Folsom points. The Firstview phase appears to be a later cultural manifestation of the Plainview occupation. Bison hunting near the marshes and playas remained the primary subsistence activity and the period is represented by a modified version of the Plainview points. Sites within the Llano Estacado with a Firstview component include; San Jon and Blackwater Locality #1 in eastern New Mexico and Lubbock Lake (Johnson and Holliday 2004).

Archaic Period (8,000-1,150 B.P.)

The Archaic Period in the Texas Panhandle spans the greatest length of time of any of the Native American occupational periods. This 6,500 year period is further divided into Early, Middle, and Late subperiods based on variations in the style of stone tools. Comparatively little is known about the Early Archaic (ca. 8,000 to 6,000 years ago). Only two sites with Early Archaic components have been excavated in the Llano Estacado region: Lubbock Lake, and San Jon in New Mexico. These sites indicate an increased reliance on plant foods and smaller game, although bison continued to be a major part of the diet (Johnson and Holliday 2004; Dillehay 1974).

By the Middle Archaic, environmental conditions were significantly drier and hotter than during the Early Archaic. Many of the ponds and marshes had dried up and the range vegetation was deteriorating. Water wells discovered at three sites dating to the Middle Archaic (Blackwater Draw Locality #1, Mustang Springs, and Marks Beach) indicate that Middle Archaic populations were finding alternate means of procuring and storing water. Despite the harsh conditions, archeological evidence indicates that Lubbock Lake had a relatively intensive occupation throughout the period. Multiple activity areas representing camping, bison kill/butchering locales, and ovens likely used for plant processing are found around the lake (Johnson and Holliday 2004).

By around 4,500 years ago, the climate began to shift back to relatively cooler and wetter conditions marking a transition to the Late Archaic period. Range conditions improved and mixed-grass prairie replaced the desert plains grasslands. Localized marshlands returned and springs once again dotted the landscape. Playas and salinas held seasonal to year round water. The more hospitable environment supported an ever increasing population as evidenced by the thousands of archeological sites dating to this period in sharp contrast to the few sites dating to the Early and Middle periods (Johnson and Holliday 2004; Hughes 1991). During the Late Archaic, the primary mode of subsistence was bison hunting, although there is evidence for hunting smaller game animals and using wild plants. Site types dating to the Late Archaic include campsites, rockshelters, and bison kill and butchering sites. Projectile points consisted primarily of barbed dart points which were significantly smaller than the large spear points used during the Paleoindian period (Hughes 1991).

Late Prehistoric Period (1,150-350 B.P.)
The Late Prehistoric period represented a time of greater residential stability and cultural innovation. Although hunting and gathering remained the primary mode of subsistence in the region, a hospitable environment and secure resource base allowed for a transition towards a village-gardener lifestyle where populations tended to remain in one place for longer periods of time. One of the hallmarks of the period was the introduction of Mogollon brownware and Woodland cordmarked pottery around 1,800 years ago. The bow and arrow was also introduced during this period, along with small barbed arrow points and later side-notched triangular points. Pithouses were common on the south plains of the panhandle early in the period and then made a transition to surface residential structures around 800 years ago. There is also some evidence of limited agriculture. Preferred campsite locations were near active or abandoned stream channels as they were during the Archaic (Hughes 1991).

Three Late Prehistoric culture complexes occur on the Llano Estacado: Lake Creek on the northern edge, Palo Duro on the eastern edge, and Eastern Jornada on the southwest margins. The complex closest to the current study area was the Palo Duro which overlapped parts of eastern Swisher and Hale counties (Boyd 2004).

The Palo Duro complex lasted from ca. 1,800 to 1,000 years ago and ranged from roughly Potter and Carson counties to the north, Borden and Scurry counties to the south, Hale and Swisher counties to the west and Hall and Motley counties to the east. Artifact assemblages typical of the Palo Duro include small arrow points (Deadman's and Scallorn), Brownware ceramics, slab metates, cobble manos, mortars and pestles, ovate knives, and some bone tools. Site types are generally small open campsites, rockshelters, or pithouses along the eastern margin of the Texas Panhandle (Cruse 1992).

The second part of the Late Prehistoric (ca. 1,000 to 800 years ago) is characterized by an intermingling of Puebloan trade pottery and Plains lithic tool types indicating that trade networks had been developed throughout the region. Sites were also exhibiting a much greater variety in the species of animal bones and number of grinding implements indicating a broadened resource base with a greater dependency on processed plant foods. Intentional human burials were also common by this time (Boyd 2004).

2.4.1.2 History

Explorer Francisco Vasquez de Coronado crossed the northern Llano Estacado and Panhandle Plains between 1540 and 1542. His expedition was undoubtedly followed by subsequent expeditions as evidenced by the glass trade beads, European-made ceramics, and metal arrow points found in archeological assemblages dating to the mid and late 1500s. Modern horse remains are also occasionally found in early historic period sites, some with evidence they had been butchered as game animals (Johnson and Holliday 2004).

The first substantial Euroamerican occupation of the Texas Panhandle began in the 1870s when professional buffalo hide hunters entered the Panhandle from Kansas. Obvious Native American resentment resulted, and resentful warriors led the Second Battle of Adobe Walls on a buffalo hunter's trading post at Adobe Walls in what is now Hutchinson County in June of 1874. Although the attack failed to overrun the post, the Natives were successful in interrupting the hide trade when the hunters and merchants fled the region for the safety of Dodge City (Rathjen 2011). This altercation resulted in government intervention and the onset of the Red River War of 1874-1875. The war resulted in the relocation of the Southern Plains Indians to reservations in what is now Oklahoma (Abbe and Leffler 2013).

After the Native American relocation, the Texas Panhandle was opened to full blown Euroamerican settlement. The first to arrive were the Pastores, or sheepmen, typically of Hispanic descent from New Mexico. Numerous groups of Pastores moved onto the Llano Estacado over the next several years and established small settlements consisting of local plazas surrounded by adobe houses. Despite the success of the sheep industry, it quickly gave way to large scale corporate cattle ranching (Rathjen 2011).

In 1880, the first of the major cattle companies to invest in the Texas Panhandle was the Prairie Cattle Company from Scotland that purchased the LIT ranch near Tascosa. It quickly added to the initial herd of 14,000 cattle and 250 horses, and by 1882 had expanded the operation to nearly 100,000 head (Anderson 2011). The Capitol Freehold Land and Investment Company was another European conglomerate to invest heavily in the Texas Panhandle cattle industry. Unfortunately, the very success of the cattle ranching industry made it also very vulnerable. Overstocking, bad investments, and unusually severe winters and periods of drought proved to be too much adversity for some ranching organizations to overcome. Those that persevered became a foundation for an industry that remains integral to the economy of the Panhandle today (Rathjen 2011).

The 1880s saw the coming of the Rock Island and Santa Fe Railroad which joined the Fort Worth & Denver Railway in providing a region-wide rail network. Railroad promoters successfully marketed the Texas Panhandle as a rich opportunity for farming and by the early 1900s, irrigation techniques had been developed that allowed for productive farming of wheat and cotton. Unfortunately, much like the cattle industry, over investment and production in marginal lands best left for grazing spelled disaster for many during the dust bowl of the 1930s.

At the same time that the agricultural industry was rising and falling, another lucrative economic opportunity was developing. In the early 1920s, the Amarillo Oil Company began drilling for oil. Dixon Creek Oil struck a massive reserve during the mid 1920s in Hutchinson County, Texas and the oil and natural gas industry has thrived in the Panhandle for the past 90 years (Rathjen 2011).

2.4.1.3 County History

The study area is wholly situated Wheeler County on the eastern edge of the Panhandle of Texas, along the Oklahoma border. Long before these geopolitical entities were organized, they were occupied by Native American people for approximately 11,000 years before European exploration and settlement began, as summarized above. The following historical summary for Wheeler County is condensed from those published by the Texas State Historical Association on its *Handbook of Texas Online* website. Specific historical information about cultural resource sites associated with Wheeler county area is presented thereafter among the comprehensive results of the records review conducted for the overall study area.

Wheeler County was named for Royal T. Wheeler, the second chief justice of the Texas Supreme Court. The area that became Wheeler County was occupied by a Plains Apache culture, which was followed by a modern Apache people, who in turn were displaced by the Kiowas and Comanche around A.D. 1700. The Kiowas and Comanche dominated the Panhandle until they were finally defeated in the Red River War of 1874 and moved to reservations in Indian Territory during 1875 and 1876. Buffalo hunters had begun moving into the area before the Indians were removed. In the spring of 1874 they established a crude outpost, called Hidetown or Sweetwater, on Sweetwater Creek, in the northwestern part of what is now Wheeler County. To curb Indian escapes from Indian Territory,

in June 1875 the United States Army established a post near Hidetown. It was named Fort Elliott in 1876 and remained operative until 1890, providing both protection and economic benefits for newly arrived residents. In 1878, the first post office in the Panhandle was established there. As the Indian threat diminished in 1875 and 1876, settlers began to congregate around Fort Elliott and Hidetown, and in 1876 the Texas state legislature established Wheeler County from lands formerly assigned to the Bexar and Young districts. As the buffalo were hunted out of existence, cattle ranching began to develop in the area, and former buffalo hunters, discharged soldiers, and newly arriving ranchers settled into the county. In 1879, the local residents petitioned for county organization. On April 12, 1879, Wheeler County became the first organized county in the Panhandle, with fourteen other unorganized counties attached to it. The small camp of Sweetwater was chosen to be the county seat; the settlement was renamed Mobeetie in 1880, when a post office was established there. Throughout the second half of the 1870s and during the 1880s and 1890s, ranching and Fort Elliott dominated the local economy. The population declined after Fort Elliott was closed about 1890, and by 1900 there were 636 people living there.

The ranching industry began to give way to farming around 1900, as a rush for school lands, beginning in 1898 and 1899, led to a substantial increase in cultivation between 1900 and 1910. Railroad construction during this period encouraged immigration and linked the area to national markets. Wheeler County's population rose rapidly during this period, and by 1910 there were 5,258 people living in the area. The evolution of the economy also contributed to the county's government being moved in 1907 from Mobeetie to Wheeler, which was located closer to the center of the county. Cultivation continued to expand between 1910 and 1930, and cotton became the county's most important crop. Over 12,400 acres were planted in cotton by 1920, and by 1930 more than 93,000 acres were devoted to the fiber. Petroleum discoveries further boosted the economy and population during this period. In 1923, a successful gas well near Shamrock launched a moderate oil boom. The first producing oil well was drilled in 1924, and by the end of the 1920s the entire southwestern part of the county was honeycombed with oil and gas wells, tank batteries, and pipelines. Magic City and Kellerville developed as small oil centers. Oil and gas discoveries also led to more railroad construction. The development of the oil and gas industry in the area during the 1920s, combined with the growth of farming, caused Wheeler County's population to more than double during the decade, and by 1930 there were 15,555 people living there. Shamrock emerged as the only successful railroad town, and it soon developed into the county's largest and most successful town, far outstripping Mobeetie and Wheeler.

An unusual boundary adjustment on Wheeler County's eastern border occurred in the late 1920s, when a boundary conflict between Texas and Oklahoma led to a resurvey of the line and a United States Supreme Court decision in 1930. As a result, the eastern border of the Texas Panhandle was moved 3,800 feet to the east, to the true 100th meridian. A strip 132 miles long expanded Wheeler and other border counties of Texas at the expense of adjacent counties in Oklahoma. In 1932, the Fort Worth and Denver Railway extended a line from Childress to Pampa that crossed the southern part of the county by way of Shamrock; and while oil producers did suffer from lower prices during the depression, in 1938 almost 2,743,000 barrels of crude were taken from Wheeler County lands.

In 2000 there were 5,284 people living in Wheeler County. Wheeler (year 2000 population: 1,378), the county seat, served as a petroleum center and had large feedlots and a slaughtering plant. Other communities included Shamrock (2,029), Mobeetie (107), Allison (135), and Briscoe (135). Wheeler is home to the Wheeler County Historical Museum. The Pioneer West Museum is in Shamrock, which also holds a St. Patrick's Day Celebration each March.

2.4.2 Previous Investigations

A review of the TARL records indicated that two cultural resource investigations have been previously conducted within the study area. These investigations consisted of both block acreage and linear surveys conducted between 1990 and 2007 for the ENRON Gas Pipeline Operating Co., and Federal Energy Regulatory Commission (FERC).

2.4.3 Records Review

GIS shapefiles identifying the locations of previously recorded cultural resources and previously conducted cultural resource investigations were requested from TARL in August of 2013. GIS records received from TARL were used to map cultural resource site locations within the study area. Previously recorded cultural resource site data available online from the Texas Historical Site Atlas (THSA) and Texas Archeological Sites Atlas (TASA) were also obtained to identify locations of designated historical sites, cemeteries, and OTHMs within the study area. TxDOT's historic bridges database was also reviewed for bridges that are listed or determined eligible for listing on the NRHP.

The review of the TASA cultural resource data indicated that two recorded archeological sites (41WE17, 41WE21) are within the study area. According to THC data, there are no cemeteries, museums, historical markers, national register properties, or national register districts recorded within the study area (see Table 2-7).

TABLE 2-7 CULTURAL RESOURCES RECORDED WITHIN THE STUDY AREA

COUNTY	RECORDED ARCHEOLOGICAL SITES	STATE ARCHEOLOGICAL LANDMARKS	NRHP-LISTED PROPERTIES	NATIONAL HISTORIC TRAILS	CEMETERIES	HTC	OTHM
Wheeler	2	0	0	0	0	0	0

Sources: TASA 2013; TARL 2013.

Review of previously recorded cultural resource sites data indicates that the study area has not been examined entirely during previous archeological and historical investigations. Consequently, the review of records does not include all possible cultural resources sites within the study area. To further assess and avoid potential impacts to cultural resources, high probability areas (HPAs) for prehistoric archeological sites were defined during the route analysis process. Within the study area, the prehistoric HPAs typically occur along resacas, streams, clay dunes, and near inland playa basins.

Historic age resources are also likely to be found near water sources. However, they will also be located in proximity to primary and secondary roads which provided access to the sites. Buildings and cemeteries are also more likely to be located within or near historic communities. Because locations and patterns of distribution for possible historic period sites are not readily predictable or quantifiable, the route analysis process considers only recorded sites listed with the THC.

2.5 AESTHETIC VALUES

Section 37.056(c)(4)(C) of PURA incorporates aesthetics as a consideration when evaluating proposed electric transmission facilities. There are currently no formal guidelines provided for managing visual resources on private, state, or county owned lands. For the purposes of this study,

POWER defined the term "aesthetics" to accommodate the subjective perception of natural beauty in a landscape and to assess an area's scenic qualities. The visual analysis was conducted by describing the regional setting and assessing the viewer's sensitivities. Related literature, aerial photograph interpretation, and reconnaissance surveys were used to describe the regional setting and to determine the landscape character types for the area.

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). POWER used the following aesthetic criteria to determine an area's aesthetic identity:

- Topographical variation (hills, valleys, etc.);
- Prominence of water in the landscape (rivers, lakes, etc.);
- Vegetation variety (woodland, meadows);
- 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 is located in the plains of the Texas Panhandle in Wheeler County. It is characterized by a rural setting comprising agricultural cropland with prominent pivot irrigation and sparse commercial/industrial developments. The majority of the study area has been impacted by activities associated with agricultural operations and oil and gas exploration. Overall, the study area viewscape consists of relatively undeveloped areas with little topography.

No known high-quality aesthetic resources, designated views, or designated scenic roads or highways were identified within the study area.

A review of the NPS website did not indicate any Wild and Scenic Rivers or National Monuments within the study area (National Wild and Scenic Rivers System [NWSRS] 2013; NPS 2013).

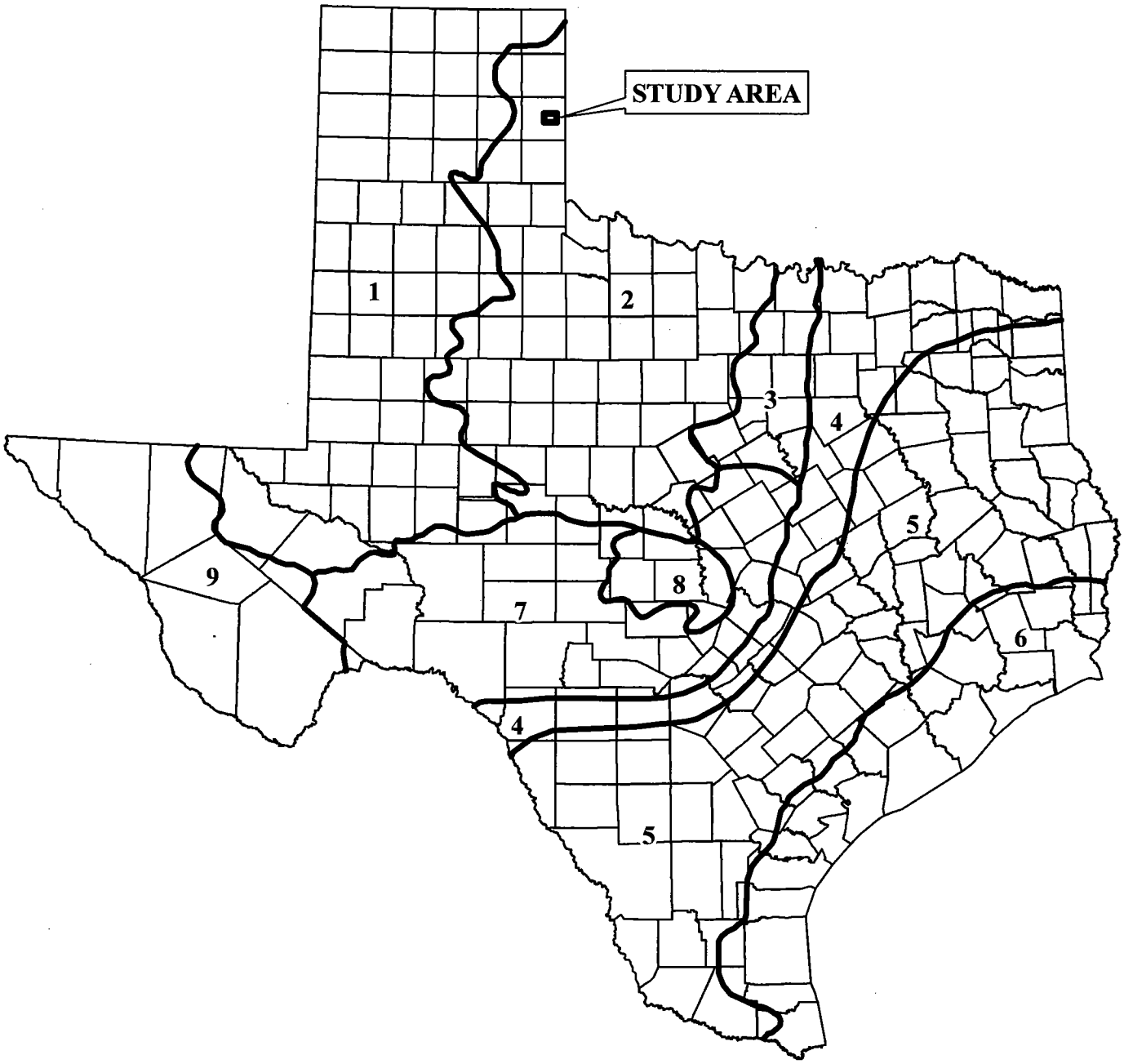
Based on these criteria, the study area exhibits a low degree of aesthetic quality for the region. The study area maintains the feel of a typical rural agricultural community. In general, the aesthetic quality of the study area is not distinguishable from that of other adjacent areas within the region.

2.6 ENVIRONMENTAL INTEGRITY

2.6.1 Physiography and Geology

As shown in Figure 2-3, the study area is located within the North-Central Plains Physiographic Province of Texas. This province is located east of the High Plains Province and is bounded to the south by the Edwards Plateau and Central Texas Uplift provinces, and to the west by the Western timbers region of the Grand Prairies Province. The North-Central Plains province is characterized as an erosional surface that developed on upper Paleozoic formations as low north to south oriented ridges (questas) with bedrock types of limestone, sandstone and shale. Elevations within the province range from 900 to 3,000 feet and within the study area elevations range from 2,200 feet in the southeast corner to 2,567 feet along the central western edge of the study area boundary (BEG 1996).

Geologic formations occurring within the study area include the Permian-aged Quartermaster Formation and Holocene-aged Windblown Sand. The Quatermaster Formation mapped within the



0 30 60 120 180 240

Miles

Source: Texas Bureau of Economic Geology, 1996

Legend

Physiographic Region Boundary

1 High Plains
2 North-Central Plains
3 Grand Prairie
4 Blackland Prairies
5 Interior Coastal Plains
6 Gulf Coastal Prairies
7 Edwards Plateau
8 Central Texas Uplift
9 Trans-Pecos Basin and Range

County Boundary

Wheeler County Substation to Coburn Creek Substation 115 kV Transmission Line Project

Figure 2-3
Location of Study Area In Relation to the Physiographic Regions of Texas

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southern portion of the study area includes the Cloud Chief Gypsum and Whitehorse Sandstone. This strata is comprised of undivided sandstone, sand, siltstone, shale, gypsum and interbedded dolomite. The Windblown Sand strata is comprised of sheets of sand and silt with dunes and dune ridges locally (BEG 1981).

2.6.1.1 Geological Hazards

Several potential geologic hazards that could affect the construction and operation of the transmission line were evaluated within the study area. Hazardous areas typically reviewed include potential karst areas, coal mining locations, gravel quarries, and potential subsurface contamination. Karst geology or other karst features may occur within the southern portion of Wheeler County; however, no known caves were identified within the county or within the study area (Texas Speleological Society [TSS] 1994). No current or historical coal mining activities were identified; however, several historical gravel quarries are located within the study area (RRC 2013).

Review of the TCEQ State Superfund Site database (TCEQ 2013) and United States Environmental Protection Agency (USEPA) Superfund Site database (USEPA 2013) did not indicate any current or previous hazardous waste sites within the study area.

The Texas Railroad Commission oil/gas database was reviewed for the study area and numerous oil and gas wells, pipelines, treatment facilities and pipeline compressor stations were identified within the study area (RRC 2013).

2.6.2 Soils

2.6.2.1 Soil Associations

The published Natural Resource Conservation Service (NRCS) soil survey for Wheeler County was reviewed (Soil Conservation Service [SCS] 1975) to identify and characterize the soils occurring within the study area.

A soil association map unit consists of one or more major soil series and other minor soils. The predominant soil association mapped within the study area is the Grandfield-Devol association which encircles an area of mapped Nobscot-Delwin association. Within the watersheds of Salt Creek and East Branch the Lutie-Obaro-Quinlan association is mapped and within the upper reaches of Salt Creek the Grandfield-Hardeman association is mapped (SCS 1975) and (CSRL 2013).

The Grandfield-Devol association is characterized as deep, nearly level to gently sloping loamy fine sands. The Pratt-Devlin association is characterized as deep, nearly level to gently sloping fine sands. The Lutie-Obaro-Quinlan association is characterized as deep to shallow, gently sloping and rolling silt loams and the Grandfield-Hardeman soils are characterized as deep nearly level to sloping fine sandy loams (SCS 1975).

Table 2-11 summarizes each soil association within the study area and indicates if any mapped units of the soil series within the association are considered hydric and/or prime farmlands (SCS 1975; NRCS 2013).

TABLE 2-11 MAPPED SOIL ASSOCIATIONS WITHIN THE STUDY AREA

SOILS ASSOCIATION	DESCRIPTION	SOIL SERIES	PERCENT OF ASSOCIATION	HYDRIC SOIL	PRIME FARMLAND SOIL
Wheeler County					
Grandfield-Devol	Nearly level to gently sloping, loamy fine sands.	Grandfield	42	No	No
		Devol	24	No	No
		Other	34	NA	NA
Nobscot-Delwin	Nearly level to gently sloping fine sands.	Nobscot	56	No	No
		Delwin	31	No	No
		Other	13	NA	NA
Lutie-Obaro-Quinlan	Gently sloping to rolling, deep to shallow, silt loams.	Lutie	27	No	Yes
		Obaro	25	No	No
		Quinlan	15	No	No
		Other	33	NA	NA
Grandfield - Hardeman	Nearly level to gently sloping, deep, fine sandy loams.	Grandfield	50	No	No
		Hardeman	17	No	Yes
		Other	33	NA	NA

Notes: NA - Not Applicable.

2.6.2.2 Hydric Soils

The National Technical Committee for Hydric Soils defines hydric soils as soils that were formed under conditions of saturation, flooding, or ponding long enough during the growing season to develop anaerobic conditions in the upper part. These soils, under natural conditions, are either saturated or inundated long enough during the growing season to support the growth and reproduction of hydrophytic vegetation (NRCS 2012).

Map units that are dominantly comprised of hydric soils might have small areas, or inclusions, of non-hydric soils in the higher positions on the landform, and map units dominantly made up of non-hydric soils might have inclusions of hydric soils in the lower positions on the landform (NRCS 2012).

None of the major soil series listed for each soil association are considered hydric. The minor soil components (identified as "Other" in Table 2-11) may include one or more soil series that are rated as hydric soils. These minor soil components would be considered hydric under some conditions, which might or might not occur where those soils occur in the study area.

2.6.2.3 Prime Farmland Soils

The Secretary of Agriculture, within 7 U.S.C. § 4201(c)(1)(A), defines "prime farmland soils" as those soils that have the best combination of physical and chemical characteristics for producing food, feed, forage, fiber, and oilseed crops. They have the soil quality, growing season, and moisture supply needed to economically produce sustained high yields of crops when treated and managed, including water management, according to acceptable farming methods. Additional potential prime farmlands are those soils that meet most of the requirements of prime farmland but fail because they lack the installation of water management facilities, or they lack sufficient natural moisture. These soils would be considered prime farmland if such practices were installed. Review of the Soil Survey Geographic

database listed prime farmland soils within the study area to include the Lutie and Hardeman soil series (NRCS 2013).

The NRCS responded to POWER's solicitation for information in a letter dated September 23, 2013 that states "This project should have no significant adverse impact on the environment or natural resources in the areas. We do not require any permits, easements, or approvals for activities such as this" (see Appendix A).

Typically, the construction of a transmission line is not considered a conversion of prime farmlands. While the study area may contain prime and other important farmland soils the Project would be considered exempt from the Farmland Protection Policy Act.

2.6.3 Water Resources

2.6.3.1 Surface Water

Information on water resources within the study area was obtained from a variety of sources including USGS topographical maps (USGS 2013), the National Hydrology Dataset (USGS 2013a) aerial photographs, and field reconnaissance. Surface waters identified within the study area include numerous creeks and several on-stream stock ponds.

The study area is located entirely within the Red River Basin. The North Fork Red River flows from west to east south of the study area boundary. Named creeks within the study area include Salt Creek and East Branch. Sweetwater Creek is located to the north of the study area boundary. Numerous ephemeral tributaries to these named surface waters were identified and all surface waters within the study area eventually discharge into North Fork Red River.

Under 31 TEX. ADMIN. CODE § 357.8, TPWD has designated Ecologically Significant Stream Segments (ESSS) based on habitat value, threatened and endangered species, species diversity, and aesthetic value criteria. Review of the TPWD database for Water Planning Region A indicated that Sweetwater Creek (located north of the study area) is noted for its high water quality/exceptional aquatic life/high aesthetic value/threatened or endangered species/unique communities and unique wetlands communities. No designated ESSS were identified within the study area (TPWD 2013b); however, several ephemeral streams within the study area flow into this surface water.

In accordance with CWA §§ 303(d) and 304(a), the TCEQ identifies surface waters for which effluent limitations are not stringent enough to meet water quality standards and for which the associated pollutants are suitable for measurement by maximum daily load. Review of the most recent TCEQ, 303(d) list indicates that Sweetwater Creek (located north of the study area) does not meet the water quality criteria for bacteria (TCEQ 2011).

2.6.3.2 Ground Water

The northern portions of the study area study area are underlain by the Ogallala aquifer. The Ogallala is the largest aquifer in the US and underlies much of the High Plains Region. It consists of sand, gravel, clay, and silt. In Texas, the salinity increases in areas south of the Canadian River. The aquifer provides significantly more water for users (irrigation) than any other major aquifer in the state. Well yields, from a depth of 200 feet, range from 500 to 1,000 gallons per minute (TWDB 2011).

The TWDB database was reviewed for public and private water wells within the study area. The database identified numerous irrigation well locations throughout the study area. These identifications were verified during the field reconnaissance survey. Water well locations were mapped utilizing GIS. One spring was identified from review of USGS topographic maps within the East Branch watershed and no springs were identified in Springs of Texas (Brune 2002).

2.6.3.3 Floodplains

The FEMA mapped floodplains (FEMA 2013) were reviewed and no flood insurance rate maps were available for the study area. In lieu of maps, it is reasonable to assume a floodplain area associated with the larger creeks in the study area.

2.6.4 Ecological Resources

Data and information on ecological resources within the study area were obtained from a variety of sources, including aerial photograph interpretation, field reconnaissance surveys, correspondence with the USFWS, TPWD and published literature and technical reports.

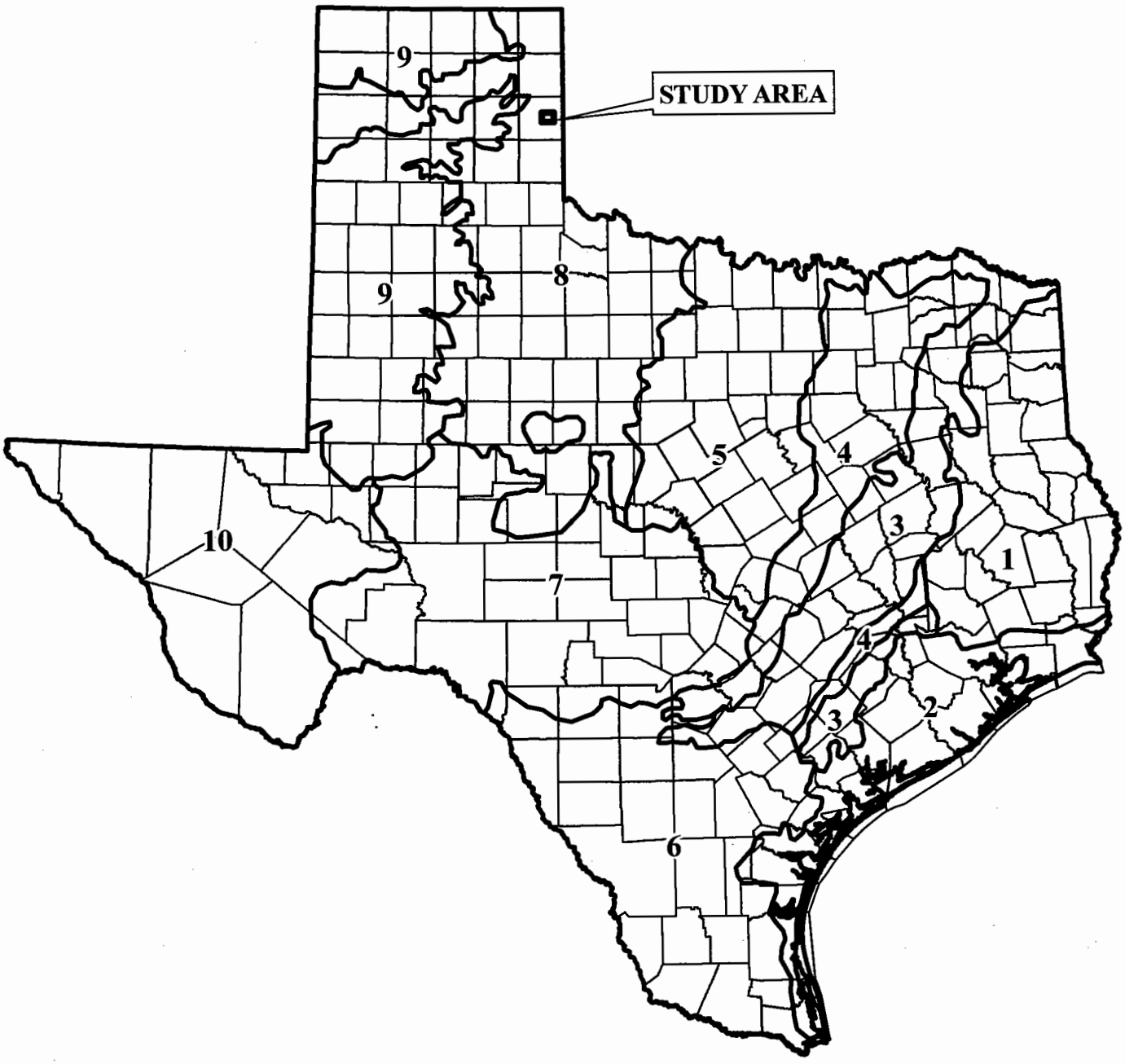
2.6.4.1 Ecological Region

The study area is located within the Central Great Plains Level III Ecoregion and Red Prairie Level IV Ecoregion (Griffith et al 2007). The Central Great Plains Ecoregion was historically a grassland prairie transitioning from tall-grasses in the eastern extent to short-grasses in the west. A majority of the area has been converted to agricultural lands and invasive shrubs have changed the species composition in other areas due to overgrazing and suppression of wildfires. The ecoregion is characterized by gently rolling hills with shallow soils on ridges and breaks (Griffith et al 2007). The Red Prairie Ecoregion is characterized as level to gently rolling with a short to midgrass prairie with intermittent streams and larger rivers. The primary land uses are cropland and grassland with livestock grazing, oil and gas activities and gypsum mining (Griffith et al. 2007).

2.6.4.2 Vegetation Types

The study area is located within the Rolling Plains vegetation area (see Figure 2-4). Historically, the Red Prairies was dominated by little bluestem (*Schizachyrium scoparium*), Texas wintergrass (*Stipa leucotricha*), white tridens (*Tridens albescens*), Texas cupgrass (*Eriochloa sericea*), and sideoats grama (*Bouteloua curtipendula*), with tobosa (*Pleuraphis mutica*) and curlymesquite (*Hilaria belangeri*) located on the swales and flats on clay soils. Increased grazing promulgates higher densities of buffalograss (*Buchloe dactyloides*), hairy tridens (*Erioneuron pilosum*), and purple threeawn (*Aristida purpurea*). Invasive brushland species include mesquite (*Prosopis glandulosa*) and lotebush (*Zizyphis obtusiflia*) (Griffith et al. 2007).

According to the Ecological Mapping Systems of Texas (TPWD 2013c), vegetation types within the study area are dominated by row crops and Conservation Reserve Program (CRP) grasslands or other improved grasslands. Fragmented areas of rolling plains mixed grass prairies and native invasive deciduous/juniper woodlands and shrub lands are intermixed within the croplands and improved grasses.



0 30 60 120 180 240

Miles

Source: Gould, F.W., Hoffman, G.O., and Rechenthin, C.A. 1960, modified

Legend

Vegetational Areas Boundary

1 Pineywoods
2 Gulf Prairies and Marshes
3 Post Oak Savannah
4 Blackland Prairies
5 Cross Timbers and Prairies
6 South Texas Plains
7 Edwards Plateau
8 Rolling Plains
9 High Plains
10 Trans-Pecos

County Boundary

Wheeler County Substation to Coburn Creek Substation 115 kV Transmission Line Project

Figure 2-4
Location of Study Area In Relation to the Vegetational Areas of Texas

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2.6.4.3 Wetlands

Mapped wetlands information was incorporated for the study area from the USFWS NWI mapper (USFWS 2013). NWI maps are based on topography and interpretation of infrared satellite data and color aerial photographs and are classified under the Cowardian System. Mapped wetlands types identified within the study area include palustrine forested (PFO), palustrine shrub/scrub (PSS), and palustrine emergent (PEM). Small stock ponds are also mapped within the study areas. Within the study area mapped NWI wetlands are associated with Salt Creek and its tributaries, East Branch and tributaries of Sweetwater Creek (USFWS 2013).

Riparian areas associated with streams or rivers within the study area are typically comprised of woody species including pecan (*Carya illinoensis*), American elm (*Ulmus americana*), black willow (*Salix nigra*), little walnut (*Juglans microcarpa*) and catbriar (*Smilax* spp) with dryer intermittent channels lined with mesquite, netleaf hackberry (*Celtis reticulata*), bumelia (*Bumelia lanuginosa*), western soapberry (*Sapindus saponaria*) and salt cedar (*Tamarix ramosissima*) (Griffith et al. 2007). The herbaceous layer in wetter locations may consist of pink smartweed (*Polygonum penylvanicum*), willow smartweed (*Polygonum lapathifolia*), barnyardgrass (*Echinochloa crusgalli*), spikerush (*Eleocharis* spp.), arrowhead (*Sagittaria longiloba*), toothcup (*Ammannia* spp.), and dock (*Rumex crispus*). Areas with a more stable saturated soil will support bulrush (*Scirpus* spp.) and cattail (*Typhus* spp.) (Chadde 2012, 2012a).

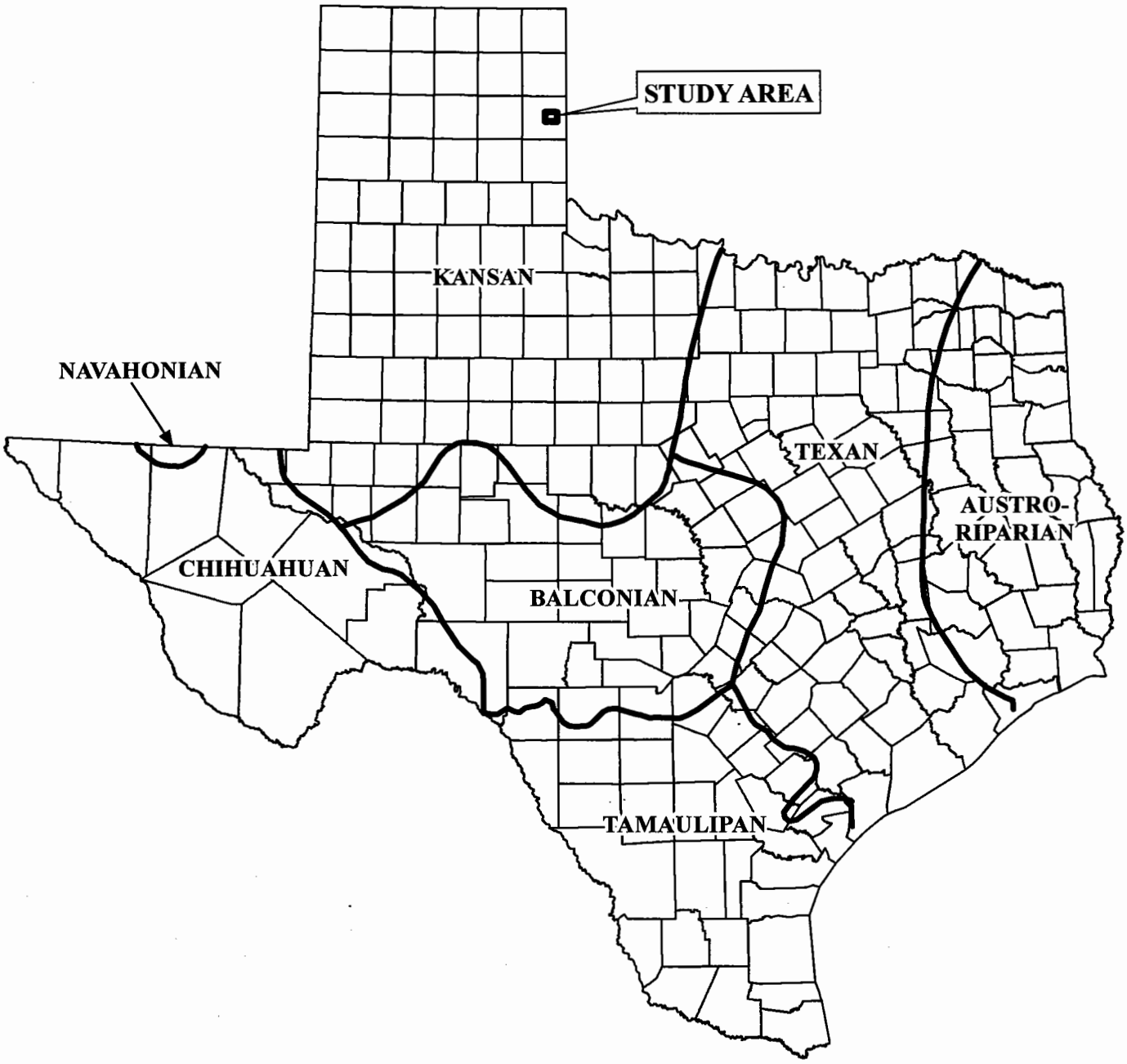
2.6.4.4 Wildlife and Fisheries

Wildlife

The study area is located within the Kansan Biotic Province (see Figure 2-5) as described by Blair (1950). The Kansan Biotic Province includes three distinct biotic districts including the Mixed-grass Plains, the Short-grass Plains, and the Mesquite Plains. The study area is located within the Mixed-grass Plains District. According to Blair, species diversity within the Kansan Biotic Province includes 14 frogs and toads, one salamander, 31 snake species, 14 lizards, one species of land turtle, and 59 species of mammals.

Amphibians

Amphibian species (frogs, toads, salamanders, and newts) that might occur within the study area are listed in Table 2-12 (Tipton et al. 2012). Frogs and toads might occur in all vegetation types while salamanders and newts are typically restricted to moist or hydric habitats.



N

0 30 60 120 180 240

Miles

Source: Blair, 1950, modified

Legend

Biotic Province Boundary

County Boundary

Wheeler County Substation to Coburn Creek Substation 115 kV Transmission Line Project

Figure 2-5
Location of Study Area In Relation to the Biotic Provinces of Texas

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TABLE 2-12 AMPHIBIAN SPECIES POTENTIALLY OCCURRING WITHIN THE STUDY AREA

COMMON NAME	SCIENTIFIC NAME
Frogs/Toads	
American bullfrog	*Lithobates catesbeianus*
Couch's spadefoot toad	*Scaphiopus couchi*
Great Plains toad	*Anaxyrus cognatus*
Green toad	*Anaxyrus debilis*
Plains leopard frog	*Lithobates blairi*
Plains spadefoot toad	*Spea bombifrons*
Mexican spadefoot toad	*Spea multiplicata*
Northern cricket frog	*Acris crepitans*
Red-spotted toad	*Anaxyrus punctatus*
Spotted chorus frog	*Pseudacris clarki*
Texas toad	*Anaxyrus speciosus*
Woodhouse's toad	*Anaxyrus woodhousii woodhousii*
Salamander/Newt	
Barred tiger salamander	*Ambystoma tigrinum mavortium*

Source: Tipton et al. 2012.

Reptiles

Reptiles (turtles, lizards, and snakes) that might occur in the study area are listed in Table 2-13 (Dixon 2000; Werler and Dixon 2007; Jones and Lovich 2009). These include those species that are more commonly observed near water (e.g., aquatic turtles) and those that are more common in terrestrial habitats.

TABLE 2-13 REPTILIAN SPECIES POTENTIALLY OCCURRING WITHIN THE STUDY AREA

COMMON NAME	SCIENTIFIC NAME
Turtles	
Ornate box turtle	*Terrapene ornata ornata*
Pallid spiny softshelled turtle	*Trionyx spiniferus pallidus*
Yellow mud turtle	*Kinosternon flavescens flavescens*
Lizards	
Common lesser earless lizard	*Holbrookia maculata*
Common spotted whiptail	*Aspidoscelis gularis*
Eastern collared lizard	*Crotaphytes collaris*
Great plains skink	*Plestiodon obsoletus*
Little brown skink	*Scinella lateralis*
Prairie lizard	*Sceloporus consobrinus*
Six lined racerunner	*Aspidoscelis sexlineata*
Texas horned lizard	*Phrynsoma cornutum*
Snakes	
Blotched water snake	*Nerodia erythrogaster transversa*
Bull snake	*Pituophis catenifer sayi*
Central Plains milk snake	*Lampropelti triangulum gentilis*
Checkered garter snake	*Thamnophis marcianus marcianus*
Diamond-backed water snake	*Nerodia rhombifer*
Eastern hog-nosed snake	*Heterodon platirhinos*
Eastern yellow-bellied racer	*Coluber constrictor flaviventris*

TABLE 2-13 REPTILIAN SPECIES POTENTIALLY OCCURRING WITHIN THE STUDY AREA

COMMON NAME	SCIENTIFIC NAME
Kansas glossy snake	*Arizona elegans*
Great Plains ground snake	*Sonor semmiannulata*
Great Plains rat snake	*Elaphe guttata emoryi*
Plains black-headed snake	*Tantilla nigriceps*
Plains hog-nosed snake	*Heterodon nasicus nasicus*
Prairie king snake	*Lampropeltis calligaster*
Prairie ring-necked snake	*Diadophis punctatus arnyi*
Speckled king snake	*Lampropeltis getula holbrooki*
Texas brown snake	*Storeria dekayi texana*
Texas long-nosed snake	*Rhinocheilus lecontei tessellatus*
Texas night snake	*Hypsiglena torquata jani*
Western coachwhip	*Mastiophis flagellum testaceus*
Western massasauga	*Sistrusus catenatus tergeminus*
Western ribbon snake	*Thamnophis proximus*

Sources: Dixon 2000, Werler and Dixon 2007, and Jones and Lovich 2009.

Birds

Numerous avian species might be present within the study area as year-round residents (see Table 2-14), winter residents (see Table 2-15) or summer residents (see Table 2-16) (Lockwood and Freeman 2004). Winter and summer resident species migrate to the area for nesting (spring/summer) or to overwinter. The likelihood for occurrence of each bird species within the study area will depend upon the availability of suitable habitat and the season. All migratory birds are afforded protection under the MBTA.

TABLE 2-14 RESIDENT BIRD SPECIES POTENTIALLY OCCURRING WITHIN THE STUDY AREA

COMMON NAME	SCIENTIFIC NAME
American coot	*Fulica americana*
American crow	*Corvus brachyrhynchos*
American kestrel	*Falco sparverius*
American robin	*Turdus migratorius*
Barn owl	*Tyto alba*
Barred owl	*Strix varia*
Bewick's wren	*Thryomanes bewickii*
Blue jay	*Cyanocitta cristata*
Brown-headed cowbird	*Molothrus ater*
Brown thrasher	*Toxostoma rufum*
Burrowing owl	*Athene cunicularia*
Carolina chickadee	*Poecile carolinensis*
Carolina wren	*Thyrothorus ludovicianus*
Chihuahuan raven	*Corvus cryptoleucus*
Common yellowthroat	*Geothlypis trichas*
Curve-billed thrasher	*Toxostoma curvirostre*
Downy woodpecker	*Picoides pubescens*
Eastern bluebird	*Sialia sialis*
Eastern meadowlark	*Sturnella magna*
Eastern screech-owl	*Megascops asio*

TABLE 2-14 RESIDENT BIRD SPECIES POTENTIALLY OCCURRING WITHIN THE STUDY AREA

COMMON NAME	SCIENTIFIC NAME
Eurasian collared-dove	*Streptopelia decaocto*
Golden eagle	*Aquila chrysaetos*
Great blue heron	*Ardea herodias*
Great horned owl	*Bubo virginianus*
Greater roadrunner	*Geococcyx californianus*
Great-tailed grackle	*Quiscalus mexicanus*
Hairy woodpecker	*Picoides villosus*
Horned lark	*Eremophila alpestris*
House sparrow	*Passer domesticus*
House finch	*Carpodacus mexicanus*
Killdeer	*Charadrius vociferus*
Ladder-backed woodpecker	*Picoides scalaris*
Lesser prairie-chicken	*Tympanuchus pallidicinctus*
Loggerhead shrike	*Lanius ludovicianus*
Mourning dove	*Zenaida macroura*
Northern bobwhite	*Colinus virginianus*
Northern cardinal	*Cardinalis cardinalis*
Northern flicker	*Colaptes auratus*
Northern mockingbird	*Mimus polyglottos*
Northern pintail	*Anas acuta*
Painted bunting	*Passerina ciris*
Pied-billed grebe	*Podilymbus podiceps*
Red-bellied woodpecker	*Melanerpes carolinus*
Red-headed woodpecker	*Melanerpes erythrocephalus*
Red-tailed hawk	*Buteo jamaicensis*
Red-winged blackbird	*Agelaius phoeniceus*
Ring-necked pheasant	*Phasianus colchicus*
Rock pigeon	*Columba livia*
Rock wren	*Salpinctes obsoletus*
Rufous-crowned sparrow	*Aimophila ruficeps*
Scaled quail	*Callipepla squamata*
Western meadowlark	*Sturnella neglecta*
White-breasted nuthatch	*Sitta carolinensis*
Wild turkey	*Meleagris gallopavo*

Source: Lockwood and Freeman 2004.

TABLE 2-15 MIGRANT WINTER RESIDENT BIRD SPECIES POTENTIALLY OCCURRING WITHIN THE STUDY AREA

COMMON NAME	SCIENTIFIC NAME
American goldfinch	*Spinus tristis*
American pipit	*Anthus rubescens*
American wigeon	*Anas americana*
Bald eagle	*Haliaeetus leucocephalus*
Brewer's blackbird	*Euphagus cyanocephalus*
Brown creeper	*Certhia americana*
Bufflehead	*Bucephala albeola*
Canada goose	*Branta canadensis*

TABLE 2-15 MIGRANT WINTER RESIDENT BIRD SPECIES POTENTIALLY OCCURRING WITHIN THE STUDY AREA

COMMON NAME	SCIENTIFIC NAME
Canvasback	*Aythya valisineria*
Cedar waxwing	*Bombycilla cedrorum*
Chestnut-collared longspur	*Calcarius ornatus*
Chipping sparrow	*Spizella passerina*
Common goldeneye	*Bucephala clangula*
Common loon	*Gavia immer*
Common merganser	*Mergus merganser*
Cooper's hawk	*Accipiter cooperii*
Dark-eyed junco	*Junco hyemalis*
Ferruginous hawk	*Buteo regalis*
Field sparrow	*Spizella pusilla*
Fox sparrow	*Passerella iliaca*
Gadwall	*Anas strepera*
Golden-crowned kinglet	*Regulus satrapa*
Greater scaup	*Aythya marila*
Green-winged teal	*Anas crecca*
Harris's sparrow	*Zonotrichia querula*
Hermit thrush	*Catharus guttatus*
Herring gull	*Larus argentatus*
Hooded merganser	*Lophodytes cucullatus*
Horned grebe	*Podiceps auritus*
Lapland longspur	*Calcarius lapponicus*
Lesser scaup	*Aythya affinis*
Lincoln's sparrow	*Melospiza lincolnii*
Long-eared owl	*Asio otus*
Marsh wren	*Cistothorus palustris*
McCown's longspur	*Rhynchophanes mccownii*
Merlin	*Falco columbarius*
Mountain bluebird	*Sialia currucoides*
Northern harrier	*Circus cyaneus*
Northern shoveler	*Anas clypeata*
Northern shrike	*Lanius excubitor*
Pine siskin	*Spinus pinus*
Prairie falcon	*Falco mexicanus*
Red-breasted nuthatch	*Sitta canadensis*
Redhead	*Aythya americana*
Ring-billed gull	*Larus delawarensis*
Ring-necked duck	*Aythya collaris*
Rough-legged hawk	*Buteo lagopus*
Ruby-crowned kinglet	*Regulus calendula*
Ruddy duck	*Oxyura jamaicensis*
Sandhill crane	*Grus canadensis*
Savannah sparrow	*Passerculus sandwichensis*
Sharp-shinned hawk	*Accipiter striatus*
Short-eared owl	*Asio flammeus*
Song sparrow	*Melospiza melodia*
Spotted towhee	*Pipilo maculatus*
Swamp sparrow	*Melospiza georgiana*

TABLE 2-15 MIGRANT WINTER RESIDENT BIRD SPECIES POTENTIALLY OCCURRING WITHIN THE STUDY AREA

COMMON NAME	SCIENTIFIC NAME
Townsend's solitaire	*Myadestes townsendi*
Tundra swan	*Cygnus columbianus*
White-crowned sparrow	*Zonotrichia leucophrys*
White-throated sparrow	*Zonotrichia albicollis*
Wilson's snipe	*Gallinago delicata*
Yellow-bellied sapsucker	*Sphyrapicus varius*
Yellow-rumped warbler	*Setophaga coronata*

Source: Lockwood and Freeman 2004.

TABLE 2-16 MIGRANT SUMMER RESIDENT BIRD SPECIES POTENTIALLY OCCURRING WITHIN THE STUDY AREA

COMMON NAME	SCIENTIFIC NAME
American avocet	*Recurvirostra americana*
Ash-throated flycatcher	*Myiarchus cinerascens*
Baltimore oriole	*Icterus galbula*
Barn swallow	*Hirundo rustica*
Bell's vireo	*Vireo bellii*
Belted kingfisher	*Megaceryle alcyon*
Black-crowned night-heron	*Nycticorax nycticorax*
Black-necked stilt	*Himantopus mexicanus*
Blue-gray gnatcatcher	*Polioptila caerulea*
Blue grosbeak	*Passerina caerulea*
Blue-winged teal	*Anas discors*
Bullock's oriole	*Icterus bullockii*
Cassin's sparrow	*Peucaea cassinii*
Cattle egret	*Bubulcus ibis*
Chimney swift	*Chaetura pelagica*
Cliff swallow	*Petrochelidon pyrrhonota*
Common grackle	*Quiscalus quiscula*
Common moorhen	*Gallinula chloropus*
Common nighthawk	*Chordeiles minor*
Common poorwill	*Phalaenoptilus nuttallii*
Dickcissel	*Spiza americana*
Eastern kingbird	*Tyrannus tyrannus*
Eastern phoebe	*Sayornis phoebe*
European starling	*Sturnus vulgaris*
Grasshopper sparrow	*Ammodramus savannarum*
Great crested flycatcher	*Myriarchus crinitus*
Great egret	*Ardea alba*
Green heron	*Butorides virescens*
House wren	*Troglodytes aedon*
Indigo bunting	*Passerina cyanea*
Lark bunting	*Calamospiza melenocorys*
Lark sparrow	*Chondestes grammacus*
Lesser goldfinch	*Spinus psaltria*
Mississippi kite	*Ictinia mississippiensis*
Northern rough-winged swallow	*Stelgidopteryx serripennis*
Orchard oriole	*Icterus spurius*

TABLE 2-16 MIGRANT SUMMER RESIDENT BIRD SPECIES POTENTIALLY OCCURRING WITHIN THE STUDY AREA

COMMON NAME	SCIENTIFIC NAME
Purple martin	*Progne subis*
Scissor-tailed flycatcher	*Tyrannus forficatus*
Swainson's hawk	*Buteo swainsoni*
Turkey vulture	*Cathartes aura*
Yellow-billed cuckoo	*Coccyzus americanus*
Warbling vireo	*Vireo gilvus*
Western kingbird	*Tyrannus verticalis*
Wood duck	*Aix sponsa*

Source: Lockwood and Freeman 2004.

Mammals

Mammals that might occur in the study area are listed in Table 2-17 (Schmidly 2004). The occurrence of each species within the study area is dependent on availability of suitable habitat.

TABLE 2-17 MAMMALIAN SPECIES POTENTIALLY OCCURRING WITHIN THE STUDY AREA

COMMON NAME	SCIENTIFIC NAME
American badger	*Taxidea taxus*
American beaver	*Castor canadensis*
Big brown bat	*Eptesicus fuscus*
Big free-tailed bat	*Nyctinomops macrotis*
Black-tailed jackrabbit	*Lepus californicus*
Black-tailed prairie dog	*Cynomys ludovicianus*
Bobcat	*Lynx rufus*
Brazilian free-tailed bat	*Tadarida brasiliensis*
Cave myotis bat	*Myotis velifer*
Common gray fox	*Urocyon cinereoargenteus*
Coyote	*Canis latrans*
Desert cottontail rabbit	*Sylvilagus audubonii*
Desert shrew	*Notiosorex crawfordi*
Deer mouse	*Peromyscus maniculatus*
Eastern cottontail rabbit	*Sylvilagus floridanus*
Eastern fox squirrel	*Sciurus niger*
Eastern mole	*Scalopus aquaticus*
Eastern pipistrelle bat	*Pipistrellus subflavus*
Eastern red bat	*Lasiurus borealis*
Eastern spotted skunk	*Spilogale putorius*
Eastern white-throated woodrat	*Neotoma leucodon*
Feral pig	*Sus scrofa*
Fulvous mouse	*Reithrodontomys fulvescens*
Hispid cotton rat	*Sigmodon hispidus*
Hispid pocket mouse	*Chaetodipus hispidus*
Hoary bat	*Lasiurus cinereus*
Least shrew	*Cryptotis parva*
Merriam's pocket mouse	*Perognathus merriami*
Mountain lion	*Puma concolor*
Muskrat	*Ondatra zibethicus*
Nine-banded armadillo	*Dasypus novemcinctus*

TABLE 2-17 MAMMALIAN SPECIES POTENTIALLY OCCURRING WITHIN THE STUDY AREA

COMMON NAME	SCIENTIFIC NAME
Northern grasshopper mouse	*Onychomys leucogaster*
Northern pygmy mouse	*Baiomys taylori*
Northern raccoon	*Procyon lotor*
Northern river otter	*Lontra canadenis*
Ord's kangaroo rat	*Dipodomys ordii*
Pallid bat	*Antrozous pallidus*
Plains harvest mouse	*Reithrodontomys montanus*
Plains pocket gopher	*Geomys bursarius*
Plains pocket mouse	*Perognathus flavescens*
Porcupine	*Erethizon dorsatum*
Red fox	*Vulpes vulpes*
Ringtail	*Bassariscus astutus*
Silver-haired bat	*Lasionycteris noctivagans*
Southern plains woodrat	*Neotoma micropus*
Spotted ground squirrel	*Spermophilus spilosoma*
Striped skunk	*Mephitis mephitis*
Swift fox	*Vulpes velox*
Texas mouse	*Peromyscus attwateri*
Thirteen-lined ground squirrel	*Spermophilus tridecemlineatus*
Townsend's big-eared bat	*Corynorhinus townsendii*
Virginia opossum	*Didelphis virginiana*
Western harvest mouse	*Reithrodontomys megalotis*
Western pipistrelle bat	*Pipistrellus hesperus*
White-footed mouse	*Peromyscus leucopus*
White-tailed deer	*Odocoileus virginianus*
Yellow-faced pocket gopher	*Cratogeomys castanops*

Source: Schmidly 2004.

Fisheries

In Texas, the divisions of the biotic provinces were separated on the basis of terrestrial vertebrate distributions; however, the distribution of freshwater fishes generally corresponds with the terrestrial province boundaries (Hubbs 1957). Areas showing the greatest deviation from this general rule include northeast Texas and the coastal zone. Aquatic habitats within the study area are associated with small ephemeral and intermittent streams. No major aquatic features sufficient to support a significant fish assemblage are located within the study area.

The small headwater ephemeral streams and intermittent flowing streams support aquatic species primarily adapted to ephemeral pool habitats. These habitat types will support aquatic species which are typically adapted to rapid dispersal and life cycle completion within in pool habitats typically having fine-grained substrates. In stream reaches dominated by scoured, sandy-clay bottoms, accumulations of woody debris of leaf pack provide the most important feeding and refuge areas for invertebrates and forage fish. The softer muddy bottoms generally harbor substantial populations of burrowing invertebrates (e.g., larval diptera and oligochaetes) which can be an important food source to higher aquatic trophic levels.

The ponds and larger lakes provide consistent aquatic habitat for all trophic levels with fish the most prominent. The relatively stable water levels of the reservoirs and the constant pools and flow of the

streams facilitate stable population growth. Species with flowing water or pooled area habitat requirements will utilize perennial streams and those adapted for deeper waters will utilize the lake and pond environments. The larger populations of fish also attract fish eating bird species. Table 2-18 indicates the fish species potentially occurring within the study area (Thomas et al. 2007).

TABLE 2-18 FISH SPECIES POTENTIALLY OCCURRING WITHIN THE STUDY AREA

COMMON NAME	SCIENTIFIC NAME
Black bullhead	*Ameiurus melas*
Bluegill	*Lepomis macrochirus*
Bullhead minnow	*Pimephales vigilax*
Channel catfish	*Ictalurus punctatus*
Common carp	*Cyprinus carpio*
Emerald shiner	*Notropis atherinoides*
Fathead minnow	*Pimephales promelas*
Flathead chub	*Platygobio gracillis*
Flathead catfish	*Pylodictis olivaris*
Gizzard shad	*Dorosoma cepedianum*
Golden shiner	*Notemigonus crysoleucas*
Goldfish	*Carassius auratus*
Grass carp	*Ctenopharyngodon idella*
Green sunfish	*Lepomis cyanellus*
Largemouth bass	*Micropterus salmoides*
Longear sunfish	*Lepomis megalotis*
Longnose gar	*Lepisosteus oseus*
Orangespotted sunfish	*Lepomis humilis*
Plains killifish	*Fundulus zebrinus*
Plains minnow	*Hybognathus placitus*
Red river pupfish	*Cyprinodon rubroflaviatilis*
Redear sunfish	*Lepomis microlophus*
Red shiner	*Cyprinella lutrensis*
River carpsucker	*Cariodes carpio*
Sand shiner	*Notropis stramineus*
Yellow bullhead	*Ameiurus natalis*
Walleye	*Stizostedion vitreum*
Warmouth	*Lepomis gulosus*
Western mosquitofish	*Gambusia affinis*
White bass	*Morone chrysops*
White crappie	*Poximus annularis*

Source: Thomas et al. 2007.

2.6.4.5 Threatened and Endangered Species

For this routing study, emphasis was placed on obtaining documented occurrences of special status species and/or their designated critical habitat within the study area. The documented occurrences of species of concern and/or other unique vegetative communities within the study area were also reviewed. Special status species include those listed by the USFWS as threatened, endangered, or candidate; and those species listed by TPWD as threatened or endangered. Species of concern include those listed as rare by TPWD. A GIS data layer of historical known occurrences for listed species and/or sensitive vegetative communities was obtained from the TXNDD (2013). For the purpose of this study, the TXNDD information is not used as a substitute for a presence/absence survey, but as an indication of previous occurrences within suitable habitat for the species.

The USFWS regulates activities affecting plants and animals designated as endangered or threatened under the ESA (16 U.S.C. § 1531 et seq.). By definition, an endangered species is in danger of extinction throughout all or a significant portion of its range. A threatened species is defined as likely to become endangered within the near foreseeable future throughout all or a significant portion of its range. Candidate species are those that have sufficient information on their biological vulnerability and threat(s) to support listing as threatened or endangered and might be proposed for listing in the near foreseeable future. The ESA also provides for the conservation of "designated critical habitat," which is defined by the USFWS as the areas of land, water, and air space that an endangered species needs for survival. These areas include sites with food and water, breeding areas, cover or shelter sites, and sufficient habitat to provide for normal population growth and behavior for the species. USFWS data regarding designated critical habitat areas were reviewed no areas were identified (USFWS 2013a). Species not designated as federally threatened or endangered are not afforded any regulatory protection under the ESA; however, additional federal and state laws may provide additional regulatory protection.

The TPWD also regulates plants and animals designated as endangered or threatened (Chapters 67 and 68 of the TPWC and 31 Tex. Admin. Code §§ 65.171 - 65.176; and Chapter 88 of the TPWC and 31 Tex. Admin. Code §§ 69.01 - 69.9). Under Texas law, endangered animal species are those deemed to be "threatened with statewide extinction" and endangered plant species are those "in danger of extinction throughout all or a significant portion of its range." Threatened animal and plant species are those deemed to be likely to become endangered within the foreseeable future.

The USFWS and TPWD maintain listings by county for all special status species pursuant to federal and state law (USFWS 2013b and TPWD 2013d).

Threatened and Endangered Listed Species

A review of the listed federal and state threatened and endangered species for Wheeler County was completed and is summarized in Table 2-19. The federal and state listings for Wheeler County did not indicate any listed plant species.

TABLE 2-19 LISTED THREATENED AND ENDANGERED SPECIES FOR WHEELER COUNTY, TEXAS

LISTED SPECIES		LEGAL STATUS	
Common Name	**Scientific Name**	**USFWS**	**TPWD**
Birds			
Bald eagle	*Haliaeetus leucocephalus*	DL	T
Lesser prairie-chicken	*Tympanuchus pallidicinctus*	C	
Least tern	*Sterna antillarum*	E	
Peregrine falcon	*Falco peregrinus*	DL	T
Whooping crane	*Grus americana*	E	E
Reptiles			
Texas horned lizard	*Phrynosoma cornutum*		T
Mammals			
Black-footed ferret	*Mustela nigripes*	E/EXT	
Gray wolf	*Canis lupis*	E/EXT	

Notes: Legal Status abbreviation: E - Endangered, T - Threatened, DL - Delisted, C - Candidate, EXT - Extirpated.
Sources: USFWS 2013b; TPWD 2013d).

Federal Listed Species

Whooping crane

The study area is located in the western extent of the primary central migratory corridor for the whooping crane (*Grus americana*). The primary migration path includes a 220-mile wide corridor that begins at their nesting site at Wood Buffalo National Park in Canada and continues south to their wintering grounds at the Aransas National Wildlife Refuge (ANWR) along the Texas coast. They begin their southern migration in September and arrive at their Texas wintering grounds at or near the ANWR between October and December. The migratory pathway contains 95% of all confirmed whooping crane stopover sightings, during migration, through spring of 2007 (USFWS 2009). The whooping crane is the tallest bird in North America and uses a variety of habitat types along their migration, from croplands to large wetlands, to feed and roost. Cranes typically feed on insects, frogs, fish, rodents, small birds, berries, fruits, crabs, or clams. During migration, they typically fly at altitudes greater than 1,000 feet but will roost and feed in areas away from human disturbance during nightly stopovers. Stopover areas include large rivers, lakes and associated wetlands, playa lakes, pastureland, and cropland (USFWS 2009). The whooping crane could be a potential non-breeding migrant during the spring and fall within the study area, if suitable stopover habitat is available.

Interior least tern

The interior least tern (*Sterna antillarum)* is a migratory subspecies of least tern that nests inland along sand and gravel bars within braided inland streams and rivers. It is also known to nest on man-made structures (inland beaches, wastewater treatment plants, gravel quarries, etc.). The bird preys on small fish and crustaceans, and forages within a few hundred feet of nesting colony. It breeds in isolated areas along the Red, Missouri, Arkansas, Mississippi, Ohio, and Rio Grande rivers. Breeding begins as early as April and is completed by late August. This species is not anticipated within the study area, but may occur if suitable habitat is available (USFWS 2012).

Federal Candidate Species

Lesser Prairie-Chicken

The Lesser prairie-chicken (*Tympanuchus pallidicinctus*) is a candidate species under the ESA and the USFWS listed a proposed rule to list the species as threatened on December 11, 2012. Perceived threats to the species is primarily due to habitat degradation or loss from the construction of roads and manmade vertical structures to include towers, utility lines, fences, turbines, wells and buildings. The USFWS is anticipated to make a final determination for listing by March 30, 2014 (USFWS 2013c).

The Lesser prairie-chicken is a medium sized grayish brown grouse endemic to the southern high plains. The species exhibits a lek mating system where birds gather at leks at dusk and dawn to conduct competitive male mating displays to attract females during the spring season. Different habitat requirements for the species include nesting, brooding and lek habitats. Preferred overall habitat is native short- and mixed-grass prairies having a shrub component dominated by sand sagebrush (*Artemesia filifolia*) or shinnery oak (*Quercus havardii*). The Lesser prairie-chicken feeds primarily on insects, seeds, leaves, buds and cultivated grains (USFWS 2013c).

The TPWD status for the species remains as a game bird with an indefinitely suspended harvest and hunting season. In an effort to preclude federal listing, the Lesser prairie-chicken Interstate Working Group drafted a Lesser prairie-chicken Range-Wide Conservation Plan (RWP) as a voluntary measure implemented by the Western Association of Fish and Wildlife Agencies (WAFWA) and the

Foundation for Western Fish and Wildlife (Van Pelt et al. 2013). Participants in the program are required to register and pay annual fees that would count towards any mitigation costs associated with future projects. Planning and mitigation costs are determined by utilizing a Southern Great Plains Crucial Habitat Assessment Tool (CHAT) (CHAT 2013). The RWP includes public and private property that currently provides or could potentially provide suitable Lesser prairie-chicken habitat within the current estimated occupied range (EOR) and within 10 miles of the EOR delineated boundary (Van Pelt et al. 2013).

Based on the CHAT model, the study area lies within the CHAT 3 modeled habitat area of the EOR +10 miles (CHAT 2013). Based on this analysis, the Lesser prairie-chicken may occur within the study area, if suitable habitat is present.

Federal Delisted Species

Peregrine falcon
The peregrine falcon (*Falco peregrinus*) is a delisted federal species and state-threatened species and the listing includes two subspecies: the American peregrine falcon (*F. p. anatum*) and arctic peregrine falcon (*F. p. tundrius*) due to similarities in appearance. The American peregrine falcon inhabits nests in tall cliff eyries and occupies many kinds of habitats during migration, including urban. Stopover habitat during migration typically includes lake shores, coastlines, and barrier islands, and the falcon is also a resident breeder in west Texas (USFWS 2013d). No previous occurrences of this species have been recorded within the study area (TXNDD 2013).

Bald Eagle
The bald eagle (*Haliaeetus leucocephalus*) was delisted from the endangered species list in 2007 by the USFWS, because the population has recovered beyond the ESA criteria for listing. The status of the bald eagle population is currently monitored by USFWS and the species is still afforded federal protection under the MBTA and the BGEPA, and is state listed as threatened. Bald eagles may nest and/or winter in Oklahoma. The bald eagle is found primarily near rivers and large lakes and will build large nests in tree tops or on cliffs usually near large bodies of water. The bald eagle primarily preys on fish but will also eat birds, small mammals and turtles, and will often scavenge or steal carrion. The study area is located outside of the bald eagle nesting range, but the bald eagle may occur within the study area as a winter resident along larger water bodies (USFWS 2013e).

Federal Extirpated Species

Gray Wolf
The gray wolf (*Canis lupis*) was formerly known throughout the western two-thirds of the state inhabiting forests, brushlands, and grasslands. The gray wolf preys on large herbivores such as deer and pronghorn antelope, but will also feed on rabbits, ground squirrels, and mice (Schmidly 2004). However, the species is now considered extirpated from the state of Texas and occurrence of a gray wolf within the study area is not anticipated.

Black-footed Ferret
The federally-listed endangered black-footed ferret (*Mustela nigripes*) is associated primarily with prairie dog towns and historically ranged in Texas throughout the northwestern portion of the state including the Panhandle, much of the Trans-Pecos, and a considerable part of the Rolling Plains. However, the black footed ferret is now considered extirpated from Texas with the last records from

Dallam County in 1953 and Bailey County in 1963 (Schmidly 2004). Therefore, the occurrence of the black-footed ferret within the study area is not anticipated.

State Listed Species

Texas Horned Lizard

The Texas horned lizard inhabits a variety of habitats including open desert, grasslands and shrubland in arid and semiarid habitats that contain bunch grasses, cacti and yucca on soils varying from pure sands and sandy loams to coarse gravels, conglomerates, and desert pavements. Their primary prey item is the harvester ant (*Pogonomyrmex* spp.), but may also consume grasshoppers, beetles, and grubs. The Texas horned lizard thermo-regulates by basking or burrowing into the soil and is active (not hibernating) between early spring to late summer (Henke and Fair 1998). This species may occur within the study area if suitable habitat exists.

State Listed Species of Concern

TPWD (2013d) also lists species of concern that may receive protection under other federal and/or state laws, such as the MBTA, Chapters 64- 67, and 78 under Title 5 of the TPWC, and Chapters 65 and 69 under Title 31 of the TAC. TPWD generally recommends consideration for these species when routing linear utility corridors. Species of concern are those within the state that are considered rare. TPWD promotes the conservation of these species and their habitats. TPWD lists six bird species and five mammal species as species of concern as shown in Table 2-22.

TABLE 2-22 TPWD LISTED SPECIES OF CONCERN FOR WHEELER COUNTY, TEXAS

Common Name	Scientific Name
Birds	
Baird's sparrow	*Ammodramus bairdii*
Ferruginous hawk	*Buteo regalis*
Mountain plover	*Charadrius montanus*
Snowy plover	*Charadrius alexandrinus*
Western burrowing owl	*Athene cunicularia hypugaea*
Western snowy plover	*Charadrius alexandrinus nivosus*
Mammals	
Cave myotis bat	*Myotis velifer*
Black-tailed prairie dog	*Cynomys ludovicianus*
Pale Townsend's big-eared bat	*Corynorhinus townsendii pallescens*
Plains spotted skunk	*Spilogale putoris interrupta*
Swift fox	*Vulpes velox*

Source: TPWD 2013d.

Birds

Baird's Sparrow

Baird's sparrow (*Ammodramus bairdii*) is a migrant species and inhabits shortgrass prairie with scattered low bushes and matted vegetation. This species is generally migratory with about 60% of the breeding populations in Canada. The non-breeding winter range may extend south to southwest Texas, Arizona, New Mexico, and Mexico. Habitat loss and degradation due to land conversion to

agriculture, grazing, and drainage of wetlands have led to population declines in portions of its range. This species may occur within the study area as a rare non-breeding migrant (NatureServe 2012b).

Ferruginous Hawk

The ferruginous hawk (*Buteo regalis*) inhabits open prairie, plains, and badlands nesting in tall trees or structures. They are frequently observed near active prairie dog towns and primarily feed on rodents and rabbits. Historically, this species nested frequently in the panhandle, but due to poaching and prairie dog eradication, their numbers have steeply declined. This species may occur within the study area as a non-breeding winter migrant (TPWD 2013e).

Mountain Plover

The mountain plover (*Charadrius montanus*), unlike many other plover species, is not typically found near water. Non-breeding habitat includes shrub steppe, shortgrass prairie, and bare ground landscapes, including plowed fields. This species nests on the ground in shallow depressions in high plains or shortgrass prairie habitats. The mountain plover is insectivorous and primarily forages on crickets, beetles and ants. On two separate occasions the mountain plover was ruled a proposed candidate as a federal threatened or endangered species. But on both occasions the USFWS determined the species was not threatened or endangered throughout all or a significant portion of the species range (USFWS 2011). This species may occur within the study area as a potential migrant.

Snowy Plover

The snowy plover (*Charadrius alexandrinus*) and the western subspecies (*C. a. nivosus*) both favor alkaline flats and lake or river shoreline habitats. They feed on small insects, crustaceans, and other small invertebrates while probing sand or mud substrates. The western snowy plover is listed as federally threatened if within 50 miles of the Pacific coast. Populations are typically scattered and have declined due to habitat loss/degradation, disturbance of nesting sites, and impacts by non-native predators. These species may occur within the study area as a transient or casual summer migrant along major waterways (Lockwood and Freeman 2004; NatureServe 2012a).

Western Burrowing Owl

The western burrowing owl (*Athene cunicularia hypugaea*) inhabits open grasslands, such as prairie, plains, and savanna, and sometimes in open areas, including vacant lots near human habitation or airports. This species nests and roosts in abandoned mammal burrows. They frequently use the burrow of the black-tailed prairie dog, but have also been observed utilizing other species such as canid (*Canidae*), mustelid (*Musteloidea*), and armadillo (*Dasypus novemcinctus*) burrows. This species was listed as an ESA candidate species from 1994 to 1996. They are listed as endangered in Canada and threatened in Mexico and still considered to be a Bird of Conservation Concern by USFWS. They are opportunistic feeders and primarily forage on arthropods, small mammals, amphibians, and reptiles (USFWS 2003).

Mammals

Cave myotis bat

The cave myotis bat (*Myotis velifer*) is an insectivorous, cave dwelling, colonial species that also roosts in rock crevices, old buildings, bridges, culverts, and bat houses, often near waterways in more arid regions. Roosts are often shared with Mexican free-tailed bats (*Tadarida brasiliensis*) Nursery colonies may range from a few dozen to 15,000 individuals and they may hibernate in the Edwards Plateau and Panhandle regions during the winter (Tuttle 2003). Although locally common, the

disruption of roost sites and pesticides has caused threats in portions of their range (Schmidly 2004). This species may occur within the study area, if suitable habitat is present.

Pale Townsend's Big-eared Bat

The Pale Townsend's big-eared bat (*Corynorhinus townsendii pallescens*) is an opportunistic insectivore that roosts in caves, mines, and occasionally old buildings. The species hibernates in groups during the winter, and during breeding season maternal colonies are formed. Females may give birth to a single offspring in late May to June. This species may occur in suitable habitats, but historic blasting of caves and mine tunnels potentially destroyed large numbers of these bats (Schmidly 2004).

Plains Spotted Skunk

The plains spotted skunk (*Spilogale putorius interrupta*) is one of three recognized sub-species of the eastern spotted skunk (*S. putorius*). The plains spotted skunk is a small slender skunk that lives in a variety of habitats but requires extensive vegetative cover. Habitats include, but are not limited to, wooded or brushy areas and tallgrass prairie, croplands, fence rows, farmyards, and forest edges. This skunk is omnivorous and primarily feeds on arthropods rabbits, voles, and rats (Schmidly 2004). This species may occur within the study area, if suitable habitat is present.

Swift Fox

The swift fox (*Vulpes velox*) lives in dens on sparsely vegetated short-grass prairies, open desert, grasslands, and pastureland. Mating pairs are formed in the fall and litters of three to six young are born in March or April. They are largely nocturnal and prey on rabbits, rodents, small birds and insects. The swift fox is susceptible to trapping and historic efforts to eradicate other carnivore species have greatly reduced their numbers (Schmidly 2004). In 1995, the USFWS determined the swift fox was a candidate to be listed as threatened, but was not listed due to higher priority species. Due to recent conservation and management efforts, in 2001 USFWS decided not to list the fox and to remove it from candidate status. This species may occur within the study area, if suitable habitat is present.

Black-tailed Prairie Dog

The black-tailed prairie dog (*Cynomys ludovicianus*)lives in large colonies, creates numerous burrows and primarily feed on plant material. Females may give birth to single litter of four or five young, per year, in March or April (Schmidly 2004). Historically, they inhabited the short-grass prairies and plains across west Texas and the Panhandle. Today, with the eradication and fragmentation of prairie dog towns associated with the conversion of prairies to agriculture, population numbers for this species have decreased rapidly. It is estimated that 98% of the original Texas population has been eradicated. Populations have shown improvement in the past few years. After a USFWS review in 2004, black-tailed prairie dog was removed as a candidate federal threatened species. Recently, USFWS announced after a 12-month finding that no ESA protection of the species was warranted because potential impacts do not threaten the long-term persistence of the species (USFWS 2011a).

Sensitive Plant Communities

Other information typically included in TXNDD report data, but not on county lists, includes natural plant communities. Review of the TXNDD (2013) element occurrence records for threatened and endangered species did not indicate any plant species of conservation concern or natural plant communities within the study area. The TXNDD data does not indicate the presence or absence of a

species or suitable habitat within an area, but merely provides documentation of historical occurrences. No other rare natural plant communities were identified within the study area (TXNDD 2013).

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3.0 ALTERNATIVE ROUTE DEVELOPMENT

The objective of this EA was to develop and evaluate an adequate number of geographically diverse alternative routes that comply with the routing criteria in PURA § 37.056(c)(4)(A)-(D) and P.U.C. SUBST. R. 25.101(b)(3)(B), including the PUC's policy of prudent avoidance. This section describes the alternative route development process, which began with mapping constraints and 36 preliminary alternative segments. Considering input received from the public open-house meeting and from various governmental agencies, the preliminary alternative segments were modified resulting in development of 36 primary alternative segments. Ultimately, all of the 36 primary alternative segments were used to develop nine alternative routes. Each phase of this alternative route development process is described in detail below.

3.1 CONSTRAINTS MAPPING

In an effort to minimize potential impacts to sensitive environmental and land use features, the alternative route development process began with a constraints mapping process wherein POWER initially identified and mapped the geographic locations of environmentally sensitive and other restrictive areas within the study area. This mapping process resulted in an environmental and land use "composite constraints map" for the study area.

POWER considered the following in development of the composite constraints map:

- **Resource Value**: A measure of rarity, intrinsic worth, singularity, or diversity of a resource within a particular area.
- **Protective Status**: A measure of the formal concern as expressed by legal protection or special status designation.
- **Present and Known Future Uses**: A measure of the level of potential conflict with land management and land use policies.
- **Hazards**: A measure of the degree to which construction and operation of the transmission line could be affected by a known resource hazard.

Through the constraints mapping process, POWER identified both constraint areas and areas of potential routing possibilities, and used the composite constraints map to develop and refine possible alternative segments. To the extent feasible and practicable, POWER avoided identified constraints to minimize potential impacts or conflicts.

In accordance with PURA § 37.056(c) and P.U.C. SUBST. R. 25.101(b)(3)(B)(i)-(iii), POWER also considered opportunities to parallel or utilize existing compatible linear land uses, and identified numerous such opportunities. Locating a transmission line adjacent to linear land uses typically minimizes environmental impacts due to existing adjacent disturbances, improved access, and decreased habitat fragmentation. Examples of linear land uses identified within the study area include electrical transmission lines, roadways (though habitable structures are frequently located near these features), railways, pipelines, and apparent property boundaries.

3.2 ALTERNATIVE ROUTE IDENTIFICATION

3.2.1 Preliminary Alternative Segments

The POWER planning team—comprised of technical experts within the resource fields of land use, aesthetics, ecology, and cultural resources—used the composite constraints map, in conjunction with existing aerial photography, to identify preliminary alternative segments to connect the Project's endpoints. To the extent practicable, the POWER planning team sought to maximize the use of opportunity areas while avoiding areas of higher environmental constraint or conflicting land uses. Information that was used to identify the preliminary alternative segments included the following:

- Input received from correspondence with local officials, regulatory agencies, and others;
- Results of reconnaissance surveys of the study area;
- Aerial photography;
- Findings of various data collection activities;
- Environmental and land use constraints data;
- Apparent property boundaries;
- Existing compatible linear land use opportunities; and
- Location of existing development.

To comply with PURA § 37.056(c)(4)(A)-(D) and P.U.C. SUBST. R. 25.101, POWER identified an adequate number of environmentally acceptable and geographically diverse preliminary alternative segments while also considering such factors as community values, parks and recreation areas, historical and aesthetic values, environmental integrity, route length parallel to existing compatible corridors or parallel to apparent property boundaries, and the PUC's policy of prudent avoidance. The proposed segments also were reviewed by SPS and POWER from an engineering and constructability standpoint.

SPS and POWER identified 36 preliminary alternative segments. These preliminary alternative segments were presented at a public open-house meeting as further discussed below (see Figure 3-1 and the open-house handout map in Appendix B).

3.2.2 Public Open-house Meeting

SPS hosted a public open-house meeting within the affected community to solicit comments from landowners, public officials, and other interested residents and parties regarding the preliminary alternative segments. The meeting was held on November 19, 2013 at the Wheeler County Ag & Family Life Center, 7939 US Hwy 83 in Wheeler, Texas.

Landowners along each of the preliminary alternative segments as identified from the Wheeler County Appraisal Districts' tax roll were invited to attend. SPS also informed local and other elected officials of the open house meeting. The purpose of the meeting was to:

- Promote a better understanding of the Project, including the purpose, need, potential benefits and impacts, and the CCN application submittal and approval process at the PUC;
- Inform and educate the public about the routing procedure, schedule, and decision-making process; and
- Ensure that the decision-making process adequately identifies and considers the values and concerns of the public and community leaders.

A public open-house meeting notice was submitted to 85 landowners who own property located within 300 feet of the preliminary alternative segment centerlines. This notice included maps of the study area depicting the preliminary alternative segments, a question and answer document, and a diagram of typical 115 kV transmission line structures. An example of the notice letter and a copy of the attachments are provided in Appendix B.

Rather than a formal presentation in a speaker-audience format, each public meeting was held in an open-house format. Several information stations were set up around the meeting room. Each station was devoted to a particular aspect of the routing study and was manned by representatives of SPS, Manning Land, LLC (SPS's ROW consultant), and/or POWER. Large displays of maps, illustrations, photographs, and/or text explaining each particular topic were presented at the stations.

Interested citizens and property owners were encouraged to visit each station in a particular order so the entire process and general Project development sequence could be explained clearly. The open-house or information station format is advantageous because it facilitates one-on-one discussions and encourages personalized landowner interactions. The open-house format also encourages more interaction from landowners who might be hesitant to participate in a speaker-audience format. Spanish speaking representatives were also available at each information station.

When individuals arrived at the open-house meeting they were asked to sign a sign-in sheet and were provided a questionnaire. The questionnaire provided information to assist the landowner in locating their property(s) on the aerial map boards and solicited comments on the Project and an evaluation of the information presented at the public meeting. An example copy of the questionnaire is provided in Appendix B.

After visiting the information stations, individuals were asked to complete the questionnaire; however, not all respondents answered every question.

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OVERSIZED MAP Figure 3-1

A total of 12 individuals attended the public open-house meeting according to the sign-in sheet, with two submitting questionnaire responses at the meeting and one landowner submitted comments by email.

3.2.3 Correspondence with Agencies/Officials

As described previously in Section 2.1.5, POWER contacted federal, state, and local regulatory agencies, elected officials, and organizations regarding the Project. As of the date of this document, written replies to the letters sent in relation to the study area were received from the following agencies or offices:

- **Federal**: NPS, NRCS, USACE, USFWS;
- **State**: GLO, TARL, TPWD, TWDB, TXNDD, TxDOT; and
- **Local and Other Organizations**: none.

Copies of all correspondence with these agencies and offices are included in Appendix A. All agency comments, concerns, and information received were taken into consideration by SPS and POWER in the preparation of this EA. Additionally, the information received from the agencies will be taken into consideration by SPS before and during construction of the Project. A summary of the comments provided by federal, state, and local officials that have responded as of this writing is included in the Agency Correspondence Table in Appendix A.

3.2.4 Modifications to Preliminary Alternative Segments

Following the public open-house meeting, SPS, and POWER performed an analysis of the input, comments, and information received at the open house meeting, and from follow-up meetings and communication with landowners, interested public stake-holders, and governmental agencies and offices. The purpose of this analysis was to determine any issues warranting modification to the preliminary alternative segments and identify potential new segments not presented at the meeting. A couple of preliminary alternative segments were modified to improve roadway crossings, to minimize potential tree clearing and to reduce potential impacts to pivot irrigation systems.

Modifications to the 36 preliminary alternative segments resulted in development of 36 primary alternative segments (route segments). The resulting primary alternative route segments are presented on Figures 3-2 and 5-1 (Appendix C).

3.2.5 Primary Alternative Routes

POWER and SPS identified primary alternative routes using each of the 36 primary alternative segments in at least one route. Ultimately, nine primary alternative routes were selected that, when combined, form an adequate number of reasonably differentiated primary alternative routes that reflect all of the previously discussed routing considerations. These nine primary alternative routes were then specifically studied and evaluated by POWER staff, though of course, many more alternative routes might be formed by utilizing the segments in different combinations.

The primary alternative routes, their segment compositions, and approximate lengths are presented in Table 3-1 and are depicted in Figure 3-2 and Figure 5-1 in Appendix C. Potential impacts for each of the evaluation criteria (see Table 2-1) were tabulated for each of the primary alternative routes (see Section 4.0 and Table 4-1).

TABLE 3-1 SEGMENT COMPOSITION AND APPROXIMATE LENGTH OF THE PRIMARY ALTERNATIVE ROUTES

ALTERNATIVE ROUTE	SEGMENT COMPOSITION	LENGTH (MILES)
1	A-B-C-D-N-U-CC-FF-GG-HH-II	10.9
2	A-B-C-G-M-T-BB-CC-DD-HH-II	11.0
3	A-B-F-K-O-P-Q-V-II	11.2
4	A-B-F-H-L-S-Y-Z-AA-BB-CC-FF-GG-HH-II	10.9
5	A-E-H-I-J-N-U-CC-FF-GG-HH-II	10.9
6	A-E-K-R-X-Z-EE-GG-HH-II	10.8
7	A-E-K-R-W-Y-Z-EE-JJ	11.8
8	A-E-H-L-P-Q-U-CC-FF-GG-HH-II	10.9
9	A-E-H-L-S-Y-Z-AA-BB-CC-FF-GG-HH-II	10.9

4.0 POTENTIAL IMPACTS OF THE PRIMARY ALTERNATIVE ROUTES

This section discusses potential impacts that could be caused by the Project's construction and operation. POWER evaluated the potential impacts of each of the primary alternative routes identified in Section 3.0 by tabulating the data for the evaluation criteria in Table 2-1 (relating to community values, parks and recreation areas, cultural resources, aesthetics, and environmental integrity). The results of the tabulation are presented in Table 4-1. Additionally, through the identification of key evaluation criteria and a consensus process, POWER recommended to SPS the alternative route that best addresses the requirements of PURA and the P.U.C. Substantive Rules (see Section 5.0) relating to ecology, community values, land use, and cultural resources.

4.1 IMPACTS ON COMMUNITY VALUES, LAND USE, AND SOCIOECONOMICS

An evaluation of adverse impacts or effects upon community values is conducted to identify aspects of the proposed Project that would significantly and negatively alter the use, enjoyment, or intrinsic value attached to an important area or resource by a community. This evaluation considers community concerns that are applicable to this specific project's location and characteristics and does not include consideration of objections to electric transmission lines in general.

Potential impacts to community resources can be classified into direct and indirect effects. Direct effects are those that would occur if the location and construction of a transmission line result in the removal or loss of public access to a valued resource. Indirect effects are those 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, tower structures, or ROW.

4.1.1 Impacts on Land Use

The magnitude of potential impacts to land use resulting from the construction of a transmission line is determined by the amount of land (land use type) temporarily or permanently displaced by the actual ROW and by the compatibility of the facilities with adjacent land uses. During construction, temporary impacts to land uses within the ROW might occur due to the movement of workers, equipment, and materials through the area. Construction noise and dust, as well as temporary disruptions of traffic flow, might also temporarily affect local residents and businesses in the area immediately adjacent to the ROW. Coordination between SPS, their contractors, local governmental agencies and landowners regarding road and ROW access and construction scheduling should minimize these disruptions.

The evaluation criteria used to compare potential land use impacts include overall route length, route length parallel to existing linear corridors (including apparent property boundaries), route proximity to habitable structures, route length across various land use types, and route proximity to park and recreational areas. An analysis of the existing land use within and adjacent to the proposed ROW is required to evaluate the potential impacts.

Alternative Route Length

The total lengths of the alternative routes vary from 10.88 miles for Alternative Route 6 to 11.83 miles for Alternative Route 7. The differences in route lengths reflect the direct or indirect pathway of each alternative route between the Project endpoints. The lengths of the alternative routes may also

reflect the effort to parallel existing transmission lines, other existing linear features, apparent property boundaries, and the geographic diversity of the alternative routes. The approximate lengths for each of the alternative routes are presented in Table 4-1.

Compatible ROW

P.U.C. SUBST. R. 25.101(b)(3)(B) requires that the PUC consider whether new transmission line routes are within existing compatible ROWs and/or parallel to existing compatible ROWs, apparent property lines, or other natural features. Criteria were used to evaluate compatible ROW utilization, length of route parallel and adjacent to existing transmission line ROW, length of route parallel to other existing linear ROWs, and length of route parallel to apparent property lines.

It should also be noted that if a segment parallels more than one existing linear corridor, only one linear corridor was tabulated (e.g., Segment C parallels both an existing transmission line and a roadway, but it was only tabulated as paralleling the transmission line).

None of the alternative routes will potentially utilize existing transmission line ROW. Two of the alternative routes, Alternative Routes 1 and 2, both parallel approximately 0.99 mile of existing transmission line ROW. The lengths parallel and adjacent to existing transmission line ROW for each of the alternative routes are presented in Table 4-1.

The alternative routes with lengths paralleling other existing linear features, including highways, pipelines, and railways range from approximately 4.19 miles for Alternative Route 1, to approximately 8.83 miles for Alternative Route 9. The lengths paralleling other existing linear features for each of the alternative routes are presented in Table 4-1.

The alternative routes were developed to parallel apparent property boundaries to the extent feasible in the absence of other existing linear corridors. The lengths paralleling apparent property boundaries range from approximately 1.94 miles for Alternative Route 9, to approximately 5.92 miles for Alternative Route 6. The lengths paralleling apparent property boundaries for each of the alternative routes are presented in Table 4-1.

All of the alternative routes parallel existing linear features for at least 90% of their lengths. The percentage of each route that parallels existing linear features ranges from 90% for Alternative Route 3, to 99% for Alternative Routes 4, 6, 7, and 9.

OVERSIZED SPREADSHEET Table 4-1

4.1.1.1 Impacts on Urban and Residential Areas

Typically, one of the most important measures of potential land use impacts is the number of habitable structures located in the vicinity of each alternative route. Based on direction provided by the PUC, habitable structure identification is included in the CCN filing. POWER determined the number of habitable structures located within 300 feet of each alternative route centerline and their distance from the centerline through the use of GIS software, interpretation of aerial photography, and verification during reconnaissance surveys.

Alternative Routes 2, 4, 8, and 9 have one habitable structure located within 300 feet of their centerlines. The remaining alternative routes have none within 300 feet. The number of habitable structures located within 300 feet of each of the alternative route centerlines are presented in Table 4-1.

Land Use Categories

An analysis of compatibility with adjacent land use types was completed for each alternative route. Land use categories identified within the study area include cropland, land with traveling irrigation systems, pastureland/rangeland, orchards, and lands with conservation easements.

4.1.1.2 Impacts on Agriculture

Impacts to agricultural land uses can generally be ranked by degree of potential impact, with the least potential impact occurring in areas where cultivation is not the primary use (pasture/rangeland), followed by cultivated croplands. The use of pasture/rangeland can be continued within the ROW following construction. Most cultivated cropland use should be able to be resumed within the ROW following construction and restoration. Restoration would include repair to the irrigation system if damaged.

All of the alternative routes cross some length of pasture/rangeland; however, because the ROW for this Project will not be fenced or otherwise separated from adjacent lands, there will be no significant long-term displacement of farming or grazing activities. Alternative route lengths crossing pasture/rangeland areas range from approximately 5.46 miles for Alternative Route 2, to approximately 8.93 miles for Alternative Route 7. The lengths of each of the alternative routes crossing pasture/rangeland are presented in Table 4-1.

All of the alternative routes cross some length of cropland with a large portion being irrigated; however, due to the relatively small area affected (beneath the structures), and the short duration of construction activities at any one location, such impacts should be short term with a small loss of production area. Alternative route lengths crossing cropland areas range from approximately 1.39 miles for Alternative Route 5, to approximately 4.69 miles for Alternative Route 2. The lengths of each of the alternative routes crossing croplands are presented in Table 4-1.

Segment P parallels a center pivot irrigation system, the system can be spanned and will be unaffected by the route. A portion of Segment T is east of a center pivot irrigation system, and it will not be affected by the route.

Alternative route lengths crossing irrigated lands range from zero for Alternative Route 1, 2, 4, 5, 6, 7 and 9, to approximately 0.06 mile for Alternative Route 3 and 8. Table 4-1 in the EA, Attachment 1

identifies, by route, the length of ROW through land irrigated by traveling systems (rolling or pivot type).

4.1.1.3 Impacts on Lands with Conservation Easements

As discussed in Section 2.2.2.2, there are no properties within the study area with known conservation easements. Therefore the proposed Project would have no significant impact on lands with conservation easements. Further, SPS will coordinate with landowners during transmission line construction and operation for continued operation of ongoing or existing land management activities.

4.1.1.4 Impacts on Transportation, Aviation, and Utility Features

Transportation

Potential impacts to transportation could include temporary disruption of traffic or conflicts with future proposed roadways and/or utility improvements. Traffic disruptions would include those associated with the movement of equipment and materials to the ROW, and slightly increased traffic flow and/or periodic congestion during the construction phase of the proposed Project. In the rural portions of the study area, these impacts are typically considered minor, temporary, and short-term. In the urban portions of the study area, the temporary impacts to traffic flow can be significant during construction, and SPS will coordinate with the agencies in control of the impacted roadways to address these traffic flow impacts as well as possible during the construction phase of the Project.

The number of US and State highways crossed by each of the alternative routes is one. None of the alternative routes cross FM roads. As mentioned above, SPS would be required to obtain road-crossing permits from TXDOT for any crossing of state-maintained roadways. The number of US, State highways, and FM road crossings for each of the alternative routes are presented in Table 4-1.

Aviation

According to FAA regulations, Title 14 CFR Part 77, the construction of a transmission line requires FAA notification if tower structure heights exceed the height of an imaginary surface extending outward and upward at a slope of 100:1 for a horizontal distance of 20,000 feet from the nearest point of the nearest runway having at least one runway longer than 3,200 feet. The FAA also requires notification if tower structure heights exceed a 50:1 slope for a horizontal distance of 10,000 feet from the nearest runway where no runway is longer than 3,200 feet in length, and if tower structure heights exceed a 25:1 slope for a horizontal distance of 5,000 feet for heliports.

One public FAA-registered airport (Wheeler Municipal Airport) is located within 20,000 feet of the alternative route segments. Following PUC approval of a route for the proposed transmission line, SPS will make a final determination of the need for FAA notification, based on specific route location and structure design. The result of this notification, and any subsequent coordination with the FAA, could include changes in the line design and/or potential requirements to mark and/or light the structures.

All of the alternative routes have one public FAA-registered airport with at least one runway more than 3,200 feet in length located within 20,000 feet of their ROW centerline.

None of the alternative routes have an FAA-registered airport having no runway more than 3,200 feet in length located within 10,000 feet of their ROW centerline. None of the alternative routes have a private airstrip located within 10,000 feet of the centerlines. None of the alternative routes have a

heliport located within 5,000 feet. Table 4-1 presents airport, airstrip, and heliport information for each of the alternative routes.

The distance of the airstrip from the nearest route was measured using GIS software and aerial photography interpretation (see Table 4-2). All known airport/airstrip locations are shown on Figure 5-1 in Appendix C.

TABLE 4-2 AIRSTRIP RUNWAY LOCATIONS

FIGURE 5-1 MAP ID	AIRSTRIP	ALTERNATIVE ROUTES	ESTIMATED RUNWAY LENGTH (FEET)[1]	EXCEEDS SLOPE[1,2]
5	Wheeler Municipal Airport	1, 2, 3, 5, 8,	Runway 17/35: 3,565	Yes

[1] Sources: FAA 2013b; POWER aerial photo and USGS interpretation.
[2] Sources: POWER aerial photo and USGS interpretation considering elevation information obtained from USGS topographic maps and a typical transmission structure height of 70 feet.

Utilities

Utility features, including existing electrical transmission lines, distribution lines, pipelines, and water wells are crossed by all of the alternative routes. If these utility features are crossed by or are in close vicinity to the centerline of the alternative route approved by the PUC, SPS will coordinate with the appropriate entities to obtain necessary permits or permission as required to ensure safety and the continued use of the existing services provided by these utility features.

Several existing electric transmission lines were identified within the study area, and each of the alternative routes cross one existing transmission line. As mentioned above, SPS will coordinate with the appropriate entity to ensure safe and continued operation of these and other utility features. The number of transmission line crossings for each of the alternative routes is presented in Table 4-1.

Numerous oil and gas pipelines were identified within the study area. SPS and POWER applied a set-back distance of 200 feet from alternative route centerlines to identified well heads using 2012 RRC data layers, aerial photo interpretation, and GIS software generated measurements. In some instances, the set-back distance was reduced due to the need to traverse a particular area to connect the Project endpoints while also considering other existing constraints in the area. Pipelines that are crossed by the alternative route approved by the PUC will be indicated on engineering drawings and flagged in the field prior to construction. SPS will coordinate with pipeline companies during transmission line construction and operation for continued safe operation of potentially-affected oil and gas facilities. The number of known pipelines crossed by the alternative routes ranges from 6 pipeline crossings for Alternative Routes 4, 5, 8 and 9, to 9 pipeline crossings for Alternative Route 2. The number of pipeline crossings for each of the alternative routes is presented in Table 4-1.

4.1.1.5 Impacts on Electronic Communication Facilities

The distance of each electronic communication facility from the closest segment was measured using GIS software and aerial photograph interpretation (see Table 4-3).

TABLE 4-3 ELECTRONIC COMMUNICATION FACILITIES

FIGURE 5-1 MAP ID	TOWER TYPE	NEAREST SEGMENT	DISTANCE FROM NEAREST SEGMENT (FEET)
3	Other electronic installation	G	265
4	Other electronic installation	V	330

Sources: POWER aerial photo and USGS interpretation.

There are no commercial AM radio towers located within 10,000 feet of the alternative route centerlines. The number of FM radio transmitters, microwave towers, and other electronic installations located within 2,000 feet of the alternative route centerlines is zero for Alternative Routes 4, 6, 7, and 9, and one for Alternative Routes 1, 2, 3, 5, and 8. Refer to Table 4-1 for the number of commercial AM radio transmitters located within 10,000 feet of the alternative routes, and the number of FM radio transmitters, microwave towers, and other electronic installations located within 2,000 feet of the alternative routes.

4.1.1.6 Impacts on Socioeconomics

Construction and operation of the proposed transmission line is not anticipated to result in a significant change in the population or employment rate within the study area. For this Project, some short-term employment would be generated. SPS normally uses contract labor supervised by SPS employees during the clearing and construction phase of transmission line projects. Construction workers for the Project would likely commute to the work site on a daily or weekly basis instead of permanently relocating to the area. The temporary workforce increase would likely result in an increase in local retail sales due to purchases of lodging, food, fuel, and other merchandise for the duration of construction activities. No additional staff would be required for line operations and maintenance.

SPS is also required to pay sales tax on purchases and is subject to paying local property tax on land or improvements as applicable.

4.2 IMPACTS ON PARKS AND RECREATION AREAS

Potential impacts to parks or recreation areas include the disruption or preemption of recreation activities. There are no parks and recreation areas crossed by or in the foreground visual zone of the transmission line. No impacts to the use or enjoyment of the parks and recreation facilities located within the study area are anticipated from any of the alternative routes. No adverse impacts from any of the alternative routes are anticipated for any fishing or hunting areas.

4.3 IMPACTS ON HISTORICAL (CULTURAL RESOURCES) VALUES

4.3.1 Impacts on Historical (Cultural Resources) Values

Methods for identifying, evaluating, and mitigating impacts to cultural resources have been established for federal projects or permitting actions, primarily for purposes of compliance with the National Historic Preservation Act (NHPA). Similar methods are often used when considering cultural resources affected by state-regulated actions. In either case, this process generally involves: (1) identifying significant (i.e., national or state-designated) cultural resources within 1,000 feet of the

centerline of each routing alternative; (2) determining the potential impacts of the project on those resources; and (3) implementing, where appropriate, measures to avoid, minimize, or mitigate those impacts.

Impacts associated with the construction, operation, and maintenance of transmission lines can affect cultural resources either directly or indirectly. Construction activities associated with any proposed project can adversely impact cultural resources if those activities alter the integrity of key characteristics that contribute to a property's significance as defined by the standards of the NRHP or the Texas State Antiquities Code. These characteristics might include location, design, setting, materials, workmanship, feeling, or association for architectural and engineering resources or archeological information potential for archeological resources.

4.3.2 Direct Impacts

Construction activities associated with any proposed project may adversely impact cultural resources when they alter the integrity of the characteristics that contribute to a property's significance. As defined by the standards of the NRHP, these characteristics typically include location, design, setting, materials, workmanship, feeling, and association. Activities associated with the construction, operation, and maintenance of transmission lines could directly impact significant cultural resources. For example, earth moving activities during construction typically have the highest potential to directly impact cultural resources by either destruction of all or part of a property, or alteration of the setting. Archeological sites such as lithic scatters that do not typically derive their significance from the setting in which they are located are unlikely to be directly visually impacted.

4.3.3 Indirect Impacts

Indirect impacts, including vandalism and accidental disturbance, may result from increased pedestrian or vehicular access to cultural resources via new access or maintenance roads. Indirect visual impacts may occur when transmission line structures are built near significant cultural resources such as intact segments of historical trails, buildings, or landscapes that derive at least part of their significance from an unaltered historical setting. Minimal indirect impacts are anticipated for this Project because a majority of the alternative routes are located within previously disturbed areas paralleling roadways or other developed areas. No increases in pedestrian or vehicular access to cultural resources are expected as a result of the construction of any of the alternative routes.

4.3.4 Mitigation

The preferred form of mitigation for adverse impacts to cultural resources is avoidance during the routing process or rerouting if significant (e.g., National Register-eligible or listed, or Texas State Archeological Landmarks) are identified prior to construction. Mitigation measures for direct impacts may include implementing a program for data recovery excavations if an archeological site cannot be avoided. Reductions in visual impacts to significant buildings and landscapes may also be accomplished by using berms or vegetation screens.

4.3.5 Summary of Cultural Resource Impacts

A review of the THSA and TASA records indicated that there have been no systematic surveys for cultural resources along any of the alternative routes. The records review also indicated that no National Historic Landmarks (NHL), Recorded Texas Historic Landmarks, State Archeological Landmarks, HTC, or other cemeteries have been recorded within the study area boundary. There are

two recorded archeological sites identified within the study area. Sites 41WE17 and 41WE21 are located west of FM 592, and adjacent to Salt Creek, within the study area boundary. Neither of these known cultural resources is crossed by any of the alternative routes. Site 41WE17, a small lithic scatter, is located within 5,093 feet of the centerline of Alternative Route 7. Site 41WE21, a historic period Plains Indian encampment, is located 2,035 feet south of Site 41WE17, on the western bank of Salt Creek. No direct impacts are anticipated to these archeological sites from construction activities. Recorded archeological sites do not typically depend on visual and aesthetic qualities for their cultural significance, so no visual indirect effects are anticipated for the known archeological sites. No indirect impacts to the known archeological sites as a result of increased public access are anticipated because all alternative segments are located near existing roads, in active agricultural fields, or near currently developed areas.

POWER reviewed THC official records, which revealed that no systematic cultural resource surveys have been conducted for any of the alternative routes. However, the potential for undiscovered cultural resources does exist along all alternative routes. A review of geological and topographical maps identified several HPAs within the study area where unrecorded prehistoric archeological resources have a higher probability to occur. HPAs for prehistoric archeological sites were identified near major streams and tributaries, water bodies, terraces overlooking stream channels, and previously recorded archeological sites. The HPAs identified include National Hydrography Dataset (NHD) streams buffered to 300 meters, NWI buffered to 300 meters, and known prehistoric and historic archeological sites buffered to 300 meters. To facilitate the data evaluation and alternative route comparison, each HPA was mapped using GIS and the length of each alternative route crossing these areas was tabulated.

All of the alternative routes cross HPAs for prehistoric cultural resources. Alternative Routes 2, 5, and 1 cross the least amount of HPA, with 3.64, 5.71, and 6.17 miles of HPA, respectively. Alternative Routes 9, 6, 3, and 7 cross the most HPA, with 6.64, 7.71, 8.27, and 9.01 miles of HPA crossed, respectively.

TABLE 4-5 KNOWN ARCHEOLOGICAL SITES WITHIN 1,000 FEET OF THE ALTERNATIVE ROUTES

SITE TRINOMIAL	DESCRIPTION	NEAREST SEGMENT	DISTANCE IN FEET FROM CENTERLINE	DIRECTION TO THE SITE	ALTERNATIVE ROUTE(S)	COMMENTS
41WE17	Open campsite of late prehistoric (Neo-Indian) time. Very minor scatter of debris.	JJ	5093	SE	n/a	SHPO NR eligibility determination: Ineligible
41WE21	Historic period Plains Indian encampment, located on the southwest side of Salt Creek, across from 41WE17.	JJ	5934	SE	n/a	No additional work recommended per site form.

Sources: TASA 2013, TARL 2013.

4.4 IMPACTS ON AESTHETIC VALUES

Aesthetic impacts, or impacts to 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, or to the importance of the existing setting in the use and/or enjoyment of an area, in the case of valued community resources and recreational areas.

Construction of the proposed 115 kV transmission line could have both temporary and permanent aesthetic effects. Temporary impacts would include views of the actual assembly and erection of the tower structures. If wooded areas are cleared, the brush and wood debris could have an additional negative temporary impact on the local visual environment. Permanent impacts from the Project would involve the views of the cleared ROW, tower structures, and lines.

Since no unique, pristine, or very high quality landscapes, or extensive landscapes protected from most forms of development exist within the study area, potential visibility impacts were evaluated by estimating the length of each alternative route that would fall within the foreground visual zones (one-half mile with unobstructed views) of major highways, and FM roads. There are no interstate highways located within the study area. The alternative route lengths within the foreground visual zone of parks or recreational areas, US and State highways, and FM roads were tabulated and are discussed below.

All of the alternative routes have some portion of the routes located within the foreground visual zone of US and State highways. Alternative Route 3 has the longest length of ROW within the foreground visual zone of US and State highways, with approximately 5.13 miles, followed by Alternative Routes 1 and 2 with approximately 3.29 miles each. Alternative Routes 5, 6, 8, and 9 have the least, with approximately 1.36 miles each, followed by Alternative Route 7 with approximately 1.8 miles.

All of the alternative routes have some portion of the routes located within the foreground visual zone of FM roads. Alternative Routes 5, 6, 7, 8, and 9 have the longest length of ROW within the foreground visual zone of FM roads, with approximately 2.91 miles each. Alternative Routes 1, 2, 3, and 4 have the least, with approximately 0.89 mile each. A summary of the lengths for each of the alternative routes within the foreground visual zone of parks or recreational areas, US and State highways, and FM roads is presented in Table 4-1.

4.5 IMPACTS ON ENVIRONMENTAL INTEGRITY

4.5.1 Impacts on Physiography and Geology

Construction of the proposed transmission line is not anticipated to have any significant adverse effects on the physiographic or geologic features and resources of the area. Erection of the structures will require the excavation and/or minor disturbance of small quantities of near-surface materials, but should have no measurable impacts on the geologic resources or features along any of the alternative routes. No geologic hazards were identified in the study area, and none are anticipated to be created by the Project. None of the hazardous waste sites identified within the study area would impact construction.

4.5.2 Impacts on Soils

Activities associated with the construction, operation, and maintenance of electrical transmission lines typically do not adversely impact soils when appropriate mitigation measures are implemented during the construction phase. Potential impacts to soils include erosion, compaction, and the conversion of prime farmland soils.

The highest risk for soil erosion and compaction is primarily associated with the construction phase of a project. In accordance with SPS's standard construction practices, ROW clearing of woody vegetation including trees, brush, and undergrowth will be conducted within the primary ROW area. During the construction phase, the ROW will include a 30 foot temporary easement, in addition to the 70 foot permanent easement, although variations may be seen in exceptional circumstances. The 30 foot easement will be used to ensure that there is sufficient space for construction activities to take place. Areas where all vegetation is removed have the highest potential for soil erosion, and the use of heavy equipment on the cleared ROW creates the greatest potential for soil compaction. Prior to construction, SPS will develop a SWPPP to minimize potential impacts associated with soil erosion, compaction, and sedimentation of the ROW. Implementation of this plan will incorporate temporary and permanent BMPs to minimize soil erosion on the ROW during significant rainfall events. The SWPPP will also establish the criteria for re-vegetation and mitigating soil compaction to ensure adequate soil stabilization during the construction and post-construction phases. The native herbaceous layer of vegetation will be maintained, to the extent practicable, during construction, and most denuded areas with a low erosion potential will be allowed to re-vegetate with native herbaceous species. Areas with a high erosion potential, including steep slopes and areas with shallow topsoil, might require seeding and/or implementation of permanent BMPs (e.g., soil berms or interceptor slopes) to stabilize disturbed areas and minimize soil erosion potential during the post-construction phase. The ROW will be inspected prior to and during construction to ensure that potential high-erosion areas are identified and appropriate BMPs are implemented and maintained. The ROW will be inspected post-construction to identify areas where erosion control measures will need to be in place to assist in soil stabilization.

Prime farmlands, as defined by the NRCS, are soils that are best suited for producing food, feed, forage, or fiber crops. The USDA recognizes the importance and vulnerability of prime farmlands throughout the nation and encourages the wise use and conservation of these soils where possible. The Project might cross areas designated as prime farmland soils. In addition to the construction-related impacts described above, the major impact of the Project on prime farmland soils would be the physical occupation of small areas by the support structures. These occupied areas would not be available for agricultural production and could become obstacles to farm machinery. However, the USDA-NRCS does not consider the limited area of direct impact associated with these structures to be a significant conversion of these soils, and the majority of the ROW would be available for agricultural use once construction of the transmission line is completed.

Potential impacts to soils, primarily erosion and compaction, would be minimized with the development and implementation of a SWPPP; therefore, the magnitude of potential soil impacts are considered equivalent for all of the alternative routes. No significant conversions of prime or state important soils are anticipated related to Project activities for any of the alternative routes.

4.5.3 Impacts on Water Resources

4.5.3.1 Impacts on Surface Water

Multiple ephemeral and intermittent flowing surface waters within the study area would be crossed by all of the alternative routes. These features will often attract wildlife and can also support a fishery if they maintain a perennial characteristic. SPS proposes to span all surface waters crossed by any of the alternative routes. None of the surface waters crossed by any of the alternative routes exceed the typical span widths of a 115 kV transmission line. Structure locations would be outside of the ordinary high water mark (OHWM) for any surface waters. Hand-cutting of woody vegetation within the OHWM would be implemented and limited to the removal of woody vegetation as necessary to meet conductor to ground clearances. The shorter understory and herbaceous layers of vegetation would remain, where allowable, and BMPs would be implemented in accordance with the SWPPP to reduce the potential for sedimentation outside of the ROW.

The number of stream crossings for each alternative route is tabulated in Table 4-1. The number of stream crossings range from four for Alternative Route 2, to 21 crossings for Alternative Route 7. Alternative Routes 1, 3 and 4 cross 13 streams each. Alternative Routes 5 and 8 cross 16 streams each, and Alternative Routes 6 and 9 cross 17 streams each. No rivers or irrigation/drainage canals are crossed by any of the alternative routes. Because all streams crossed will be spanned and a SWPPP will be implemented, no significant impacts are anticipated to surface water integrity or water quality.

The alternative route lengths crossing open waters (lakes and ponds) range from 0.03 mile for Alternative Routes 1, 2, 3, and 4, to 0.04 mile for Alternative Routes 5, 6, 7, 8, and 9. No lengths of individual open water crossings for any of the alternative routes exceed the typical span length of a 115 kV transmission line. Because SPS proposes to span these features, no significant impacts are anticipated to this resource.

Alternative Route 2 does not parallel (within 100 feet) any stream. Alternative Route 4 parallels streams for 0.07 mile and Alternative Route 3 parallels for 0.12 mile. The other alternative routes parallel streams for between 0.28 (Alternative Route 1) to 0.64 mile (Alternative Route 8).

The alternative route lengths crossing open water, lengths parallel with streams, and the number of streams crossed is presented for each route in Table 4-1. Since all surface waters are proposed to be spanned and a SWPPP plan will be implemented during construction, no significant impacts to these surface waters are anticipated for any of the alternative routes.

4.5.3.2 Impacts on Ground Water

The construction, operation, and maintenance of the proposed transmission line are not anticipated to adversely affect groundwater resources within the study area, though potential fuel and/or chemical spills during the construction process could potentially impact both surface water and groundwater resources. Thus, standard operating procedures and spill response specifications relating to petroleum product storage, refueling, and maintenance activities of equipment are provided as a component of the SWPPP in order to avoid and minimize potential contamination to water resources. SPS will take all necessary and available precautions to avoid and minimize the occurrence of such spills, and any remedial and disposal activities associated with any accidental spills will be in accordance with state and federal regulations.

4.5.3.3 Impacts on Floodplains

No FEMA mapped floodplain data was available for the study area. No construction activities are anticipated that would significantly impede the flow of water within any watersheds. The construction of any of the alternative routes is not likely to significantly impact the overall function of a floodplain, or adversely affect adjacent or downstream properties.

4.5.4 Impacts on Ecological Resources

4.5.4.1 Impacts on Vegetation Types

Potential impacts to vegetation would result from clearing the ROW of woody vegetation and/or herbaceous vegetation. These activities facilitate ROW access for structure construction, line stringing, and future maintenance activities of the proposed transmission line. Impacts to vegetation would be limited to a 70-foot wide ROW following construction. Woody vegetation removal within the ROW would be required within upland woodlands/brushlands and bottomland/riparian woodlands. ROW clearing activities would be completed while minimizing the impacts to existing groundcover vegetation when practical. Mowing and/or shredding of herbaceous vegetation might be required within grasslands/pasturelands. Future ROW maintenance activities might include periodic mowing and/or herbicide applications to maintain the herbaceous vegetation layer within the ROW.

Clearing trees and shrubs from woodland areas typically causes a degree of habitat fragmentation. The magnitude of habitat fragmentation is minimized by paralleling an existing linear feature such as a transmission line, roadway, railway or pipeline. During the route development process, consideration was given to maximize the length of the routes parallel to existing linear corridors to minimize impact to or avoid wooded vegetation areas. Clearing would occur only where necessary to provide access, work space and future maintenance access to the ROW.

The lengths of each alternative route requiring clearing of woody vegetation are provided in Table 4-1. The lengths of each route crossing upland woodlands/brushlands and riparian woodlands were interpolated from aerial photography and route lengths were digitally measured for these tabulations. The lengths of the alternative routes crossing upland woodlands/brushlands range from zero miles for Alternative Routes 8 and 9, to 0.97 mile for Alternative Route 1. The remaining alternative routes cross from between 0.48 mile (Alternative Route 5) to 0.92 mile (Alternative Routes 6 and 7). The lengths of the alternative routes crossing bottomland/riparian woodlands range from zero mile for Alternative Routes 2, 5, 6, 8, and 9, to 0.07 mile for Alternative Routes 3 and 4.

4.5.4.2 Impacts on Wetlands

Wetlands serve as habitat to a number of species and are often used as migration corridors for wildlife. Removal of vegetation within wetlands increases the potential for erosion and sedimentation, which can be detrimental to downstream plant communities and aquatic life. Removal of woody vegetation within any wetlands crossed is proposed using hand-clearing methods to avoid disturbance of the soil profile and to preserve the herbaceous vegetation layer. Additionally, mitigation measures can be implemented during construction activities to further avoid and/or minimize potential impacts to wetlands. Due to the topography and arid nature of the region, the mapped wetland areas are typically restricted within stream channels or immediate floodplain. In most instances these areas could be spanned with impacts limited to the clearing of woody vegetation necessary to obtain conductor to ground clearance requirements. No equipment would be required to traverse the wetlands or surface waters.

The temporary and/or permanent placement of fill material within jurisdictional surface waters and associated wetlands requires a permit from the USACE under Section 404 of the CWA if the threshold criteria are exceeded to require a Nationwide Permit. A delineation of the wetlands crossed by the PUC approved route will be completed to determine any USACE permit requirements. If necessary, SPS will coordinate with the USACE prior to clearing and construction to ensure compliance with Section 404 of the CWA in order to avoid, minimize, or mitigate unavoidable impacts to waters of the US, including associated wetlands.

NWI mapped wetlands are crossed by all of the alternative routes. The length of each alternative route crossing NWI mapped wetlands ranges from 0.03 mile each for Alternative Routes 2, 3, and 4, to 0.18 mile each for Alternative Routes 6 and 7. SPS proposes to implement BMPs as a component of their SWPPP to prevent off-ROW sedimentation and degradation of any wetland areas. If emergent wetland areas are traversed by equipment, timber matting can be used to minimize the potential temporary impacts. If forested or shrub wetlands are crossed, the woody vegetation will be hand cut level with the ground with stumps remaining intact. With SPS's use of these impact avoidance and minimization measures, none of the alternative routes are anticipated to have a significant impact on jurisdictional waters or wetlands.

4.5.4.3 Impacts on Wildlife and Fisheries

The primary impacts of construction activities on terrestrial wildlife species are typically associated with temporary disturbances from construction activities, and with the removal of vegetation (habitat modification/fragmentation). Increased noise and equipment movement during construction might temporarily displace mobile wildlife species from the immediate workspace area. These impacts are considered short-term and normal wildlife movements would be expected to resume after construction is completed. Potential long-term impacts include those resulting from habitat modifications and/or fragmentation. All the alternative routes cross areas of upland and riparian woodlands which can represent the highest degree of habitat fragmentation by converting the area within the ROW to an herbaceous habitat. Within this ecological region, maintaining herbaceous vegetation may be desirable due to the extent of invasive woody species altering the historical mixed-grass prairies. During the routing process, POWER attempted to minimize potential woodland habitat fragmentation by paralleling existing linear features and avoiding paralleling streams to the extent feasible.

Construction activities might also impact small, immobile, or fossorial (living underground) animal species through incidental takes or from the alteration of local habitats. Incidental takes of these species might occur due to equipment or vehicular movement on the ROW by direct impact or due to the compaction of the soil if the species is fossorial. Potential impacts of this type are not typically considered significant and are not likely to have an adverse effect on any species population dynamics.

If ROW clearing occurs during bird nesting season, potential impacts could occur within the ROW area related to migratory bird eggs and/or nestlings. Increases in noise and equipment activity levels during construction could also potentially disturb breeding or other activities of bird species nesting in areas adjacent to the ROW. SPS proposes to complete all ROW clearing and construction activities in compliance with the MBTA to avoid or minimize potential impacts.

Transmission lines can also present additional hazards to birds due to electrocutions and/or collisions. Measures can be implemented to minimize this risk with transmission line engineering designs. The electrocution risk to birds should not be significant since the engineering design distance between conductors, conductor to structure, or conductor to ground wire for the proposed 115 kV transmission line is greater than the wingspan of any bird potentially within the area (i.e., greater than eight feet). While the conductors are typically thick enough to be seen and avoided by birds in flight, the shield wire is thinner and can present a risk for avian collision. This risk can be minimized by installing bird flight diverters or other marking devices on the line within high bird use areas. SPS will evaluate the installation of bird flight diverters or other marking devices as determined necessary for specific locations.

Potential impacts to aquatic systems would include effects of erosion, siltation, and sedimentation. Clearing the ROW of vegetation might result in increased suspended solids in the surface waters traversed by the transmission line. Increases in suspended solids might adversely affect aquatic organisms that require relatively clear water for foraging and/or reproduction. Physical aquatic habitat loss or alteration could result wherever riparian vegetation is removed and also at temporary crossings required for access roads. Increased levels of siltation or sedimentation might also potentially impact downstream areas, primarily affecting filter feeding benthic and other aquatic invertebrates.

To avoid or minimize these impacts, SPS proposes to span all surface waters and wetlands. Additionally, the implementation of a SWPPP and BMPs will also minimize potential impacts. Therefore, no significant adverse impacts are anticipated to any aquatic habitats crossed or located adjacent to the ROW for any of the alternative routes.

Construction of the proposed transmission line is not anticipated to have direct adverse impacts to wildlife and fisheries within the study area. Direct impacts would be associated with the loss of woodland habitat which is reflected in the vegetation analysis discussed above. Habitat fragmentation was minimized for all the alternative routes by paralleling existing linear features to the extent feasible. While highly mobile animals might be temporarily displaced from habitats near the ROW during the construction phase, normal movement patterns should return after Project construction is complete. Implementation of a SWPPP utilizing BMPs will minimize potential impacts to aquatic habitats.

4.5.4.4 Impacts to Threatened and Endangered Species

To determine potential impacts to threatened or endangered species, POWER reviewed several sources of information: Known element occurrence data for the study area was obtained from the TXNDD and Project scoping comments were received from TPWD and USFWS (see Appendix A). Current county listings for federal and state listed threatened and endangered species and USFWS designated critical habitat locations were included in the review and were previously discussed in Section 2.6.4.5. The TXNDD data provides element occurrence data based on recorded observations of threatened, endangered or rare plant and animal species. The level of uncertainty for the precise location of each element of occurrence datapoint is represented by a polygon within the database. The greatest level of uncertainty (general precision) for any datapoint is represented by a polygon buffer with an 8,000 meter (4.97 mile) radius.

No elements of occurrence were identified within the TXNDD report. The absence of element of occurrence records within the TXNDD database for an area is not considered a substitute for a species-specific field survey. After the PUC approves a route, if necessary, SPS will conduct a field

survey to identify potential suitable habitats for federally listed species and evaluate the need for additional surveys (such as species-specific survey) and/or coordination with USFWS and TPWD.

Threatened and Endangered Plant Species

Federally listed plant species are only afforded federal protection from take (to "remove and reduce to possession" and/or "maliciously damage or destroy") if they are located on federal lands and/or federal funding or actions are associated with the Project. Listed plant species are also protected from commercial trade as well as import or export.

State-listed threatened and endangered plant species are afforded protection under Chapter 88 within Title 5 of the TPWC. Within this regulation, a "take" means to collect, pick, cut, dig up, or remove. This restricts the "take" of a listed species from public lands. It also prohibits the collection for sale, possession for commercial sale, transport for commercial sale, or sale of all or part of an endangered, threatened, or protected plant from private land unless permitted through the TPWD.

No federal or state listed plant species are identified for Wheeler County. None of the alternative routes are anticipated to adversely affect any listed or rare plant species.

Sensitive Vegetation Communities

Review of TXNDD data did not indicate any sensitive vegetation communities within the study area. None of the alternative routes are anticipated to impact any sensitive vegetation communities.

Threatened and Endangered Animal Species

Of the federally listed threatened and endangered species described in Section 2.0, the species with the highest potential for impact as a result of the Project includes the whooping crane. The Project is located within the migratory flyway for this species. Although no recorded occurrences have been documented, the potential exists for whooping crane individuals to use the study area as a stopover site during migration. Stopover sites typically include shallow water areas cleared of woody vegetation and can include small stockponds. Measures to reduce potential collision risks could include voluntary marking of the transmission line shield wires to increase visibility within or near areas of potential use by the whooping crane.

The Lesser prairie-chicken is currently listed as a candidate species with a final decision for listing as threatened by USFWS anticipated by March 14, 2014. The study area is not located within the estimated occupied range for the Lesser prairie-chicken, but is located within 10 miles of the estimated occupied range for the species. While empirical data is lacking to determine the effect of a transmission line on the behavior of the Lesser prairie-chicken, potential impacts have been minimized to the extent practical during the route development phase by paralleling existing linear features (roadways and existing transmission lines) to minimize the disturbance of native habitat. No documented occurrences of the species have been recorded within the study area for Lesser prairie-chicken, however it is likely that fragmented potential suitable habitat may be present within the study area.

The construction of a transmission line does not include activities associated with collecting, hooking, hunting, netting, shooting, or snaring by any means or device, and does not include an attempt to conduct such activities. Therefore, "take" of state-listed species as defined in Section 1.01(5) of the TPWC is not anticipated by this Project.

It should be noted that pedestrian surveys for threatened and endangered species have not been completed for any of the alternative routes; therefore suitable habitat for these species might occur within the ROW of any of the alternative routes. If necessary, a field survey for potential suitable habitat for all listed species will be completed after PUC approval of an alternative route. Additional consultation with USFWS and TPWD may also be required.

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5.0 ROUTE EVALUATION

The purpose of this study was to delineate and evaluate alternative routes for SPS's proposed transmission line in Wheeler County between the existing Wheeler County Substation and the proposed Coburn Creek Substation. POWER completed an environmental analysis of nine primary alternative routes (Section 4.0), the results of which are shown in Tables 4-1. The environmental evaluation was a comparison of the alternative routes strictly from an environmental standpoint (i.e., land use, aesthetics, ecology, and cultural resources) based upon measurement of the environmental criteria (Table 2-1) and the consensus opinion of POWER's group of evaluators. POWER used this information to evaluate and rank the alternative routes and to recommend an alternative route that provides the best balance between land use, aesthetic, ecological, and cultural resource factors. SPS considered this information along with engineering, construction, maintenance, and operational factors, cost estimates, and comments from agencies and the public, to identify a route that best addresses the requirements of applicable portions of PURA and P.U.C. Substantive Rules. POWER's evaluation is discussed below.

5.1 POWER'S ENVIRONMENTAL EVALUATION

POWER used a consensus process to evaluate the potential environmental impacts of the alternative routes. POWER professionals with expertise in different environmental disciplines (land use, ecology, and cultural resources), as well as POWER's Project Manager, evaluated all of the alternative routes based on the environmental conditions present along each route. This evaluation was based on the evaluation criteria, comments received from the public, and local, state, and federal agencies, and field reconnaissance of the study area. Each POWER technical expert independently analyzed the routes and the environmental data presented in Tables 4-1 and then independently ranked the routes with respect to potential impacts within their respective discipline. The evaluators then met as a group and discussed their independent results. The group as a whole determined the relationship and relative sensitivity among the major land use, ecological, and cultural resource factors. The group then ranked the alternative routes based strictly upon the land use, aesthetics, ecology, and cultural resource environmental data considered.

The evaluators agreed that all of the alternative routes were viable and acceptable from an overall land use, aesthetic, ecology, and cultural resource perspective. The evaluators each ranked the alternatives from 1st to 9th (with 1st having the least potential impact and 9th the greatest potential impact) from the perspective of their own area of expertise. The results of these rankings are summarized in Table 5-1.

TABLE 5-1 POWER'S ENVIRONMENTAL RANKING OF THE ALTERNATIVE ROUTES

	RANKING				
Alternative Route	Land Use Specialist	Ecology Specialist	Cultural Resources Specialist	Project Manager	Consensus
1	6th	7th	3rd	2nd	5th
2	8th	1st	1st	7th	7th
3	9th	2nd	8th	8th	8th
4	2nd	3rd	5th	4th	2nd
5	7th	6th	2nd	6th	6th
6	1st	8th	7th	1st	1st
7	4th	9th	9th	9th	9th
8	5th	4th	4th	5th	4th
9	3rd	5th	6th	3rd	3rd

All the alternative routes are acceptable from a potential land use, ecological and cultural impact perspective with only minor variances in evaluation criteria differences between all the routes.

The land use evaluation placed the greatest importance on the length paralleling existing transmission lines, length paralleling existing ROW, and length paralleling apparent property lines. Secondary evaluation criteria included overall length of the route and the number of habitable structures located within 300 feet of the proposed ROW centerline. The land use specialist ranked Alternative Route 6 as having the least potential land use impact and Alternative Route 3 as having the greatest potential land use impact.

To assess a ranking, the ecology evaluation was based primarily on potential impacts to, bottomland/riparian woodlands, mapped NWI wetlands, and the number of stream crossings. The length of ROW crossing upland woodlands and length of ROW parallel to streams were secondary considerations. The ecologist ranked Alternative Route 2 as having the least potential ecological impact and Alternative Route 7 as having the most potential ecological impact.

The cultural resources evaluation was based primarily on the amount of HPA crossed by the alternative routes. Alternative Route 2 was identified as the best alternative route from a cultural resources perspective, followed by Alternative Routes 5, 1, 8, 4, 9, 6, 3, and 7 respectively. None of these routes crossed, or were within 1,000 feet of archeological sites 41WE17 or 41WE21.

The POWER project manager also ranked the alternative routes, considering all of the evaluation criteria. Given the nature of the study area, paralleling of existing ROW/apparent property lines, the overall length of the alternative route as well as proximity to habitable structures were considered key factors. Potential impact avoidance and minimization measures typically employed during the construction of transmission (e.g., whether a feature could be spanned to minimize potential impacts) were also taken into account. Alternative Route 6 was selected by the POWER project manager as the best-balanced route considering all the evaluation criteria reviewed, followed by Alternative Routes 1, 9, and 4.

Based on group discussion of the relative value and importance of each set of criteria (land use, ecology, and cultural resources) for this specific project, it was the consensus of the group of POWER evaluators that length paralleling existing transmission lines, length paralleling existing ROW, and

length paralleling apparent property lines would be the primary factors in their selection of the recommended route and ranking of the remaining alternative routes. Secondary evaluation criteria included overall length of the route and the number of habitable structures located within 300 feet of the proposed ROW centerline.

Based on these criteria, the group selected Alternative Route 6 as the alternative route that best addresses PURA and PUC environmental routing criteria and then agreed on ranking the remaining top four alternatives. The next top four alternative routes, Alternative Routes 4, 9, 8, and 1 (in order of preference), were determined to have the least potential cumulative impacts. The ranking of the alternative routes is presented in Table 5-1. All the alternative routes are considered viable, acceptable routes that are also geographically diverse.

POWER's recommendation of Alternative Route 6 as the route that best balances the PUC routing criteria related to land use, aesthetics, ecology, and cultural resources, is supported by the following evaluation criteria. Alternative Route 6:

- has the shortest overall length;
- has the longest length of ROW parallel to apparent property lines;
- has no habitable structures within 300 feet of the proposed ROW centerline; and
- crosses no parks/recreational areas.

POWER's Project Director reviewed all of the data and evaluations produced by the project manager and task managers and concurred with the rankings and recommendations for the alternative routes.

Therefore, based upon its evaluation of this Project and its experience and expertise in the field of transmission line routing, POWER recommends Alternative Route 6 from an overall environmental perspective and the remaining routes as alternatives. Considering all pertinent factors, it is POWER's opinion that this route best addresses the criteria related to land use, aesthetics, ecology, and cultural resources, specified in PURA § 37.056(c)(4) and the P.U.C. Substantive Rules.

Tables 5-2 through 5-10 present detailed information on habitable structures and other land use features in the vicinity of the alternative routes. The items in Tables 5-2 through 5-10 and the alternative routes are illustrated on Figure 5-1 in Appendix C.

TABLE 5-2 HABITABLE STRUCTURES AND OTHER LAND USE FEATURES IN THE VICINITY OF ROUTE 1

SEGMENT COMBINATION: A-B-C-D-N-U-CC-FF-GG-HH-II

Map Number	Structure or Feature	Approximate Distance from Centerline (feet)	Direction from Route Centerline
4	Other Electronic Installation	1,922	N
5	Wheeler Municipal Airport	5,804	N

TABLE 5-3 HABITABLE STRUCTURES AND OTHER LAND USE FEATURES IN THE VICINITY OF ROUTE 2

SEGMENT COMBINATION: A-B-C-G-M-T-BB-CC-DD-HH-II

Map Number	Structure or Feature	Approximate Distance from Centerline (feet)	Direction from Route Centerline
1	Gas Well Related Control Building	136	S
3	Other Electronic Installation	265	S
5	Wheeler Municipal Airport	11,796	N

TABLE 5-4 HABITABLE STRUCTURES AND OTHER LAND USE FEATURES IN THE VICINITY OF ROUTE 3

SEGMENT COMBINATION: A-B-F-K-O-P-Q-V-II

Map Number	Structure or Feature	Approximate Distance from Centerline (feet)	Direction from Route Centerline
3	Other Electronic Installation	265	E
5	Wheeler Municipal Airport	4,917	E

TABLE 5-5 HABITABLE STRUCTURES AND OTHER LAND USE FEATURES IN THE VICINITY OF ROUTE 4

SEGMENT COMBINATION: A-B-F-H-L-S-Y-Z-AA-BB-CC-FF-GG-HH-II

Map Number	Structure or Feature	Approximate Distance from Centerline (feet)	Direction from Route Centerline
2	Residence	242	N
5	Wheeler Municipal Airport	16,550	N

TABLE 5-6 HABITABLE STRUCTURES AND OTHER LAND USE FEATURES IN THE VICINITY OF ROUTE 5

SEGMENT COMBINATION: A-E-H-I-J-N-U-CC-FF-GG-HH-II

Map Number	Structure or Feature	Approximate Distance from Centerline (feet)	Direction from Route Centerline
4	Other Electronic Installation	1,922	N
5	Wheeler Municipal Airport	5,804	N

TABLE 5-7 HABITABLE STRUCTURES AND OTHER LAND USE FEATURES IN THE VICINITY OF ROUTE 6

SEGMENT COMBINATION: A-E-K-R-X-Z-EE-GG-HH-II

Map Number	Structure or Feature	Approximate Distance from Centerline (feet)	Direction from Route Centerline
5	Wheeler Municipal Airport	18,248	E

TABLE 5-8 HABITABLE STRUCTURES AND OTHER LAND USE FEATURES IN THE VICINITY OF ROUTE 7

SEGMENT COMBINATION: A-E-K-R-W-Y-Z-EE-JJ

Map Number	Structure or Feature	Approximate Distance from Centerline (feet)	Direction from Route Centerline
5	Wheeler Municipal Airport	18,605	E

TABLE 5-9 HABITABLE STRUCTURES AND OTHER LAND USE FEATURES IN THE VICINITY OF ROUTE 8

SEGMENT COMBINATION: A-E-H-L-P-Q-U-CC-FF-GG-HH-II

Map Number	Structure or Feature	Approximate Distance from Centerline (feet)	Direction from Route Centerline
2	Residence	242	N
4	Other Electronic Installation	1,922	N
5	Wheeler Municipal Airport	7,635	NW

TABLE 5-10 HABITABLE STRUCTURES AND OTHER LAND USE FEATURES IN THE VICINITY OF ROUTE 9

SEGMENT COMBINATION: A-E-H-L-S-Y-Z-AA-BB-CC-FF-GG-HH-II

Map Number	Structure or Feature	Approximate Distance from Centerline (feet)	Direction from Route Centerline
2	Residence	242	N
5	Wheeler Municipal Airport	16,550	N

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6.0 LIST OF PREPARERS

This EA was prepared for SPS by POWER. A list of the POWER employees with primary responsibilities for the preparation of this document is presented below.

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7.0 REFERENCES

Anderson, H. Allen. 2011. *"Prairie Cattle Company,"* Handbook of Texas Online. (http://www.tshaonline.org/handbook/online/articles/dsp01), accessed October 14, 2011. Published by the Texas State Historical Association.

Blair, W.F. 1950. The biotic provinces of Texas. Texas Journal of Science 2:93-117.

Boyd, Douglas K. 2004. *The Palo Duro Complex: Redefining the Early Ceramic Period in the Caprock Canyonlands.* In The Prehistory of Texas. Ed. Timothy Pertulla. Texas A&M University Press. College Station.

Brune, Gunnar. 2002. *Springs of Texas*, Volume I. Texas A&M University Press. College Station, Texas. 566pp.

Bureau of Economic Geology (BEG). 1981. Geologic atlas of Texas, Amarillo Sheet. Bureau of Economic Geology, University of Texas at Austin. Austin, Texas.

_____. 1996. Physiographic Map of Texas. Bureau of Economic Geology, University of Texas. Austin, Texas.

California Soil Resource Lab (CSRL). 2013. SoilWeb Earth. USDA-NCSS detailed soil survey data (SSURGO). University of California, Davis, CA. Available on the internet: http://casoilresource.lawr.ucdavis.edu/soilweb/ (accessed December 2013).

Chadde, S.W. 2012. Wetland Plants of Texas, Volume One Monocots. A Bogman Guide. 360pp.

_____. 2012a. Wetland Plants of Texas, Volume Two Dicots. A Bogman Guide. 506pp.

Cruse. J.B. 1992. *Archeological Investigations at the Kent Creek Site (41HL66).* Panhandle Archeological Society Publication No. 6. Amarillo.

Derrick, Randall. 2008. *The Paleo-Indian Period: The Clovis Culture in the Texas Panhandle.* Pandlenation. http://www.panhandlenation.com/history/prehistory/intro.htm accessed September 2011.

Dillehay, T.D. 1974. *Late Quaternary Bison Population Changes on the Southern Plains.* Plains. Anthropologist 19(65):180-196.

Dixon, James. R. 2000. Amphibians and reptiles of Texas, 3rd ed. Texas A&M University Press, College Station, Texas. 447 pp.

Donald R. Abbe and John Leffler. 2013. "WHEELER COUNTY," *Handbook of Texas Online* (http://www.tshaonline.org/handbook/online/articles/hcw07), accessed December 12, 2013. Published by the Texas State Historical Association.

Federal Aviation Administration (FAA). 2013a. National Aeronautical Charting Office. Dallas-Ft. Worth Sectional Aeronautical Chart, 90th Edition, Effective March 7, 2013.

_____. 2013b. Airport Data and Contact Information. Available on the internet: http://www.faa.gov/airports/airport_safety/airportdata_5010/ (accessed August 5, 2013).

Federal Communication Commission (FCC). 2012. Geographic Information Systems – Licensing Database Extracts. Available on the internet: http://wireless.fcc.gov/geographic/index.htm?job=licensing_database_extracts (accessed January 2, 2013)

Federal Emergency Management Agency (FEMA). 2013. FEMA NHHL v2.4.kml. National Flood Hazard Layer Web Map Service (WMS) in Google Earth. FEMA, Washington D.C. Available Online: https://hazards.fema.gov/femaportal/wps/portal/NFHLWMS kmzdownload (accessed December 2013).

Griffith, G., S. Bryce, J. Omernik, and A. Rogers. 2007. Ecoregions of Texas. Project Report to Texas Commission on Environmental Quality. Austin, Texas. 125 pp.

Henke S.E. and W.S. Fair. 1998. Management of Texas Horned Lizards. Wildlife Management Bulletin of the Caesar Kleberg Wildlife Research Institute. Texas A&M University-Kingsville. No.2. Hughes, J.T. 1991. *Prehistoric Cultural Development on the Texas High Plains*. Bulletin of the Texas Archeological Society 60:1–56.

Holliday, Vance T. and Eileen Johnson. Archaeology *and Late Quaternary Environments of the Southern High Plains.* The Prehistory of Texas. Ch. 9: 283-295.

Hubbs, C. 1957. Distributional patters of Texas freshwater fishes. Southwest Naturalist 2:89-104.

Hughes, J.T. 1991. *Prehistoric Cultural Development on the Texas High Plains*. Bulletin of the Texas Archeological Society 60:1–56.

Johnson, E. and V. Holliday. 2004. "Archeology and Late Quaternary Environments of the Southern High Plains. In Prehistory of Texas. Ed. Timothy Perttula. Texas A & M University Press. College Station.

Jones, Lawrence L.C. and Lovich, Robert E. 2009. Lizards of the American Southwest. Rio Nuevo Publishers, Tuscon Arizona. 567 pp.

Lockwood, M.W. and B. Freeman. 2004. The TOS handbook of Texas birds. Texas A&M University Press, College Station, Texas. 261pp.

Mercado-Allinger, Patricia A., Nancy A. Kenmotsu, and Timothy K. Pertulla. 1996. *Archeology in the Central and Southern Planning Region, Texas: A Planning Document*. Edited by Office of the State Archeologist, Special Report 35, and Department of Antiquities Protection, CRM Report 7.

National Park Service (NPS). 2013. *National Historic Landmarks Program* – Lists of National Historic Landmarks - Texas. Available on the internet: http://www.nps.gov/history/nhl/designations/listsofNHLs.htm (accessed August 14, 2013) (last updated June 2013).

National Wild and Scenic Rivers System (NWSRS). 2013. *National Wild and Scenic Rivers System Wild and Scenic Rivers by State*. Available on the internet: http://www.rivers.gov/national-system.php (accessed August 15, 2013).

Natural Resources Conservation Service (NRCS). 2013. NRCS Web Soil Survey. Available on the internet: http://websoilsurvey. nrcs.usda.gov/app/WebSoilSurvey.aspx (accessed December 2013).

NatureServe Explorer. 2012a. Snowy Plover - Comprehensive Report Species - Falco mexicanus. NatureServe. Available online: http://www.natureserve.org/explorer/ (accessed December 2013). Pertulla, Timothy K. 2004. The Prehistory of Texas. An Introduction to Texas Prehistoric Archaeology. Published by Texas A&M University Press. Texas A&M University anthropology series; no. 9.

_____. 2012b. Baird's Sparrow - Comprehensive Report Species. NatureServe. Available on the internet: http://www.natureserve.org/explorer/ (accessed December 2013).

Perttula, Timothy K. and D. Gentry Steele. 2004. The Prehistory of Texas. Texas A&M University Press. College Station, Texas. 471 pp.

Railroad Commission of Texas (RRC). 2013. Public GIS Map Viewer for Oil, Gas, and Pipeline Data. Available on the internet: http://www.rrc.state.tx.us/data/online/gis/index.php# (accessed December 2013)

Rathjen, F.W. 2011. Handbook of Texas, Online, s.v. "Panhandle," Available on the internet: http://www.tshaonline. org/handbook/online/articles/PP/ryp1.html (accessed September, 2011).

Schmidly, D. J. 2004. The mammals of Texas, revised edition. University of Texas Press, Austin, Texas. 501pp.

Soil Conservation Service (SCS). 1975. General Soil Map, Wheeler County, Texas. U.S. Department of Agriculture. Texas Agricultural Experiment Station. Available on the internet: http://www.nrcs.usda.gov/Internet/FSE_MANUSCRIPTS/texas/wheelerTX1975/wheelerTX1975.pdf. (accessed December 2013).

Southern Great Plains Crucial Habitat Assessment Tool (CHAT). 2013. Available on the internet: kars.ku.edu/maps/sgpchat/ (accessed December 2013).

Texas Archaeological Research Laboratory (TARL) Site Files. Texas Historical Commission. August 21, 2013. http://nueces.thc.state.tx.us/ December 2013.

Texas Archaeological Site Atlas (TASA). Texas Historical Commission. http://nueces.thc.state.tx.us/ December 2013.

Texas Commission on Environmental Quality (TCEQ). 2011. Texas Water Quality Inventory and 303(d) List. Available on the internet: http://www.tceq.texas.gov/waterquality/assessment/10twqi/10twqi (accessed December 2013).

_____. 2013. Superfund Sites in Wheeler Counties. Available on the internet: http://www.tceq.texas.gov/remediation/superfund/sites/county/index.html. (accessed December 2013)

Texas Department of Transportation (TxDOT). 2013. Project Tracker. Available on the internet: http://www.txdot.gov/project_information/project_tracker.htm (accessed August 15, 2013).

Texas Education Agency (TEA). 2013. School District Locator. Available on the internet: http://wgisprd.tea.state.tx.us/SDL/ (accessed August 16, 2013) (Last updated January 2, 2013).

Texas Land Trust Council (TLTC). 2013. Panhandle Plains Region. Available on the internet: http://www.texaslandtrustcouncil.org/index.php?option=com_wrapper&view=wrapper&Itemid=160 (accessed August 15, 2013).

Texas Natural Diversity Database (TXNDD). 2013. Texas Parks and Wildlife Department Texas Biological and Conservation Data System, Austin, Texas. (Report Received November 15, 2013).

Texas Parks and Wildlife Department (TPWD). 2013a. *Panhandle Plains*. Available on the internet: http://www.tpwd.state.tx.us/huntwild/wildlife/wildlife-trails/plains (accessed August 14, 2013).

_____. 2013b. Ecologically Significant Stream Segments – Region A. Available on the internet: http://www.tpwd.state.tx.us/landwater /water/environconcerns/water_quality/sigsegs/ (accessed December 2013).

_____. 2013c. Texas Ecological Systems Classification Project. Phase 7, Available on the internet: https://www.dropbox.com/sh/3dzdedqbi8n8s9h/y3scyoM8PZ (accessed December 2013)

_____. 2013d. Texas Parks and Wildlife Annotated County List of Rare Species. Available on the internet: http://www.tpwd.state.tx.us/huntwild/wild/species/endang/index.phtml (accessed December 2013).

_____. 2013e. Ferruginous Hawk (Buteo regalis). TPWD. Austin, Texas. Available on the internet: http://www.tpwd.state.tx.us/huntwild/wild/species/ferhawk/ (accessed December 2013).

Texas Speleological Society (TSS). 1994. The Caves and Karst of Texas. National Speleological Society, Inc. Huntsville, Alabama 342 pp.

Texas Water Development Board (TWDB). 2011. Aquifers of Texas. Report 380. Texas Water Development Board, Austin, Texas.

_____. 2012. *2011 Regional and 2012 State Water Plan Population Projections Data.* Available on

the internet: http://www.twdb.state.tx.us/waterplanning/data/projections/2012/popproj.asp (accessed August 26, 2013). (January 2012).

_____. 2012. Maps and GIS. Available on the internet: http://www.twdb.state.tx.us/mapping/ (accessed January 2, 2013).

Thomas, C., Bonner T. H., and B.G. Whiteside. 2007. Freshwater Fishes of Texas a field guide. Texas A&M University Press, College Station, Texas. 202pp.

Tipton, B.L., T.L. Hibbits, T.D. Hibbits, T.J. Hibbits, and T.J Laduc. 2012. Texas Amphibians – A Field Guide. University of Texas Press, Austin, Texas. 309pp.

Tuttle. M.D. 2003. Texas Bats. Bat Conservation International, Inc. Austin, Texas. 71pp.

United States Bureau of the Census (USBOC). 2000. Census 2000 Gateway. State and County Quick Facts. Available on the internet: http://www.census.gov/main/www/cen2000.html (accessed August 26, 2013).

_____. 2010. Census 2010. Available on the internet: http://www.census.gov/2010census/ (accessed August 26, 2013).

_____. 2011. American Fact Finder. Available on the internet: http://factfinder2.census.gov/main.html (accessed August 26, 2013).

United States Department of Agriculture (USDA). 2007. 2007 Census of Agriculture – Texas – State and County Profiles. Available on the internet: http://www.agcensus.usda.gov/Publications/2007/Online_Highlights/County_Profiles/Texas/index.asp (accessed August 16, 2013).

United States Environmental Protection Agency (USEPA). 2013. Final National Priorities List Sites - by State. Available on the internet: http://www.epa.gov/superfund/sites/query/ queryhtm/nplfin. htm#TX (accessed December 2013).

United States Fish and Wildlife Service (USFWS). 2003. Status Assessment and Conservation Plan for the Western Burrowing Owl in the United States: Biological Technical Publication BTP-R6001-2003. USFWS, Shepherdstown, West Virginia. Available on the internet: http://www.fws.gov/mountain-prairie/species/birds/wbo/Western%20Burrowing%20Owlrev73003a.pdf.

_____. 2009. Whooping Cranes and Wind Development, An issue Paper. USFWS Region 2 and Region 6, April 2009.

_____. 2011. Endangered Species: Mountain Plover. USFWS Mountain-Prairie Region. Available on the internet: http://www.fws.gov/mountain-prairie/species/birds/mountainplover/ (accessed December 2013)

_____. 2011a. Endangered Species: Black-tailed Prairie Dog. USFWS Mountain-Prairie Region. Available on the internet: http://www.fws.gov/mountain-prairie/species/mammals/btprairiedog/ (assessed December 2013).

_____. 2012. Species: Profile Least tern (*Sterna antillarum*). Environmental Conservation Online System. Available on the internet: http://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B07N (assessed December 2013).

_____. 2013. National Wetland Inventory (NWI) Mapper. Available on the internet: http://www.fws.gov/nwi (accessed December 2013).

_____. 2013a. USFWS Critical Habitat Mapper. Available on the internet: ttp://criticalhabitat.fws.gov/ crithab/flex/crithabMapper.jsp (accessed December 2013)

_____. 2013b. List of species by county for Texas. Southwest Region Ecological Services. Available on the internet: http://www.fws.gov/southwest/es/EndangeredSpecies /lists/ListSpecies.cfm (accessed December 2013).

_____. 2013c. Lesser prairie-chicken (Tympanuchus pallidicinctus). Southwest Region Ecological Services. Available on the internet: http://www.fws.gov/southwest/es/lpc.html (accessed December 2013).

_____. 2013d. American peregrine falcon (*Falco peregrines anatum*) Species Profile. Environmental Conservation Online System. Available on the internet: http://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B01H (accessed December 2013).

_____. 2013e. Bald Eagle (*Haliaeetus leucocephalus*)) Species Profile. Environmental Conservation Online System. Available on the internet: http://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B008 (accessed December 2013).

United States Geological Survey (USGS). 2013. United States Geologic Survey - 7.5 minute quadrangle maps. Note: Most quads have different print dates and these were not cited but referenced. The quadrangle maps were accessed through Environmental Sciences Research Institute, 2011, ArcGIS Map Service: http://services.arcgisonline.com/ArcGIS/services (accessed December 2013).

_____. 2013a. National Hydrography Dataset (NHD). Available on the internet: http://nhd.usgs.gov/data .html (accessed December 2013).

Van Pelt, W.E., S. Kyle, J. Pitman, D. Klute, G. Beauprez, D. Schoeling, A. Janus, J. Haufler,2013. The Lesser Prairie-Chicken Range-wide Conservation Plan. Western Association of Fish and Wildlife Agencies. Cheyenne, Wyoming, pp.367. Available online at http://www.wafwa.org/documents/2013LPCRWPfinalfor4drule12092013.pdf (accessed December 2013).

Ventyx. 2013. EV Energy Map. Boulder, Colorado. Updated September, 2012.

Werler, John E. and Dixon James R. 2007. Texas Snakes – Identification, Distribution, and Natural History. University of Texas Press. Austin, Texas. 437 pp.

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Appendix A

Agency Correspondence

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WHEELER TO SALT CREEK 115 kV TRANSMISSION LINE
FEDERAL, STATE AND LOCAL AGENCIES

Mr. Chris Shoulders
National Operations Supervisor
Obstruction Evaluation Group
Federal Aviation Administration
4500 Mercantile Plaza
Fort Worth, TX 76137

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State Conservationist
NRCS Texas State Office
101 South Main Street
Temple, TX 76501

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U. S. Environmental Protection Agency
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Mr. Tony Robinson
Regional Adminsitrator
Federal Emergency Management Agency
FRC 800 North Loop 288
Denton, TX 76209-3698

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Field Supervisor
U.S. Fish & Wildlife Service
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Arlington, TX 76006

Colonel Michael J. Teague
Commander
USACE – Tulsa District
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Regional Director
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IMRextrev@nps.gov

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Wildlife Habitat Assessment Program
Texas Parks and Wildlife Department
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Deputy Executive Administrator
Texas Water Development Board
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Mr. Greg Miller
Director, Planning & Programming
Texas Department of Transportation
Department of Aviation
125 E. 11th Street
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Mr. Carlos Swoke
Director of Environmental Affairs
Texas Department of Transportation
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Austin, TX 78701-2483

Mr. Mark Wolfe
Executive Director
Texas Historical Commission
P.O. Box 12276
Austin, TX 78711

Mr. Brad Jones
Regional Director
Texas Commission on Environmental Quality
3918 Canyon Dr.
Amarillo, TX 79109-4933

Mr. Jerry Patterson
Commissioner
Texas General Land Office
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Mr. Milton Rister
Executive Director
Railroad Commission of Texas
P.O. Box 12967
Austin, TX 78711-2967

Mr. Gary Pitner
Executive Director
Panhandle Regional Planning Commission
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Amarillo, TC 79105-9257

Mr. John Herron
Director of Conservation
The Nature Conservancy
PO Box 1440
San Antonio, TX 78295-8774

Mr. David Bezanson
Program Director
The Nature Conservancy – North Texas
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Celeste, TX 75423

Ms. Dalmara Bayne
Executive Director
Native Prairies Association of Texas
2002-A Guadalupe Street PMB 290
Austin, TX 78705-5609

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Executive Director
Texas Agricultural Land Trust
4040 Broadway, Suite 430
San Antonio, TX 78209

Mr. Mark Steinbach
Executive Director
Texas Land Conservancy
P. O. Box 162481
Austin, TX 78716

Ms. Linda Palit
President
Texas Cave Management Association
P.O. Box 7427
Austin, TX 78713-7427

Wheeler County

The Honorable Jerry Dan Hefley
County Judge
Wheeler County
P. O. Box 486
Wheeler, TX 79096

The Honorable Daryl Snelgrooes
Wheeler County Commissioner
Precinct 1
P. O. Box 69
Wheeler, TX 79096

The Honorable Robert Hink
Wheeler County Commissioner
Precinct 2
P. O. Box 69
Wheeler, TX 79096

The Honorable Richard Kincannon
Wheeler County Commissioner
Precinct 3
P.O. Box 69
Shamrock, TX 79079

The Honorable John Walker
Wheeler County Commissioner
Precinct 4
P.O. Box 69
Shamrock, TX 79079

The Honorable Bob McCain
Mayor
City of Wheeler
Box 65
Wheeler, TX 79096

Mr. Ike Finsterwald
President
Wheeler County Farm Bureau Office
PO Box 160
Wheeler, TX 79096-0160

Mr. Frank Belcher
Superintendent
Wheeler ISD
1 Mustang Drive
Wheeler, TX 79096

Mr. Jimmy Hoyle
Interim Superintendent
Kelton ISD
16703 FM 2697
Wheeler, TX 79096

POWER ENGINEERS, INC.

7600B N CAPITAL OF TEXAS HWY
SUITE 320
AUSTIN, TX 78731 USA

PHONE 512-795-3700
FAX 512-795-3704

POWER ENGINEERS

September 12, 2013
(Via Mail)

ENERGY
FACILITIES
COMMUNICATIONS
ENVIRONMENTAL

«Name»
«Title»
«Agency»
«Street_Address»
«City», «State» «Zip»

Re: Wheeler-Salt Creek 115 kV Transmission Line Project
Wheeler County, Texas
POWER Engineers, Inc. Project No. 131393

Dear «Name»:

Xcel Energy Inc. (Xcel) will be filing for a Certificate of Convenience and Necessity (CCN) with the Public Utility Commission of Texas (PUCT) to design and construct a new 115 kilovolt (kV) transmission line in a study area within Wheeler County, Texas. The new transmission line will connect the existing Wheeler Substation, which is located approximately 5.2 miles south-southwest of Wheeler, to the new Salt Creek Substation which will be located along State Highway 152, approximately 7.5 miles east of Wheeler. The location of the study area, existing substations and transmission lines are shown on the enclosed map.

POWER Engineers, Inc. (POWER) is preparing an Environmental Assessment (EA) and Alternative Route Analysis for Xcel to support their CCN application for the PUCT. POWER is gathering data on the existing environment and identifying environmental and land use constraints within the study area that will be used in the creation of an environmental and land use constraints map. POWER will identify potential alternative route segments that consider these environmental and land use constraints.

We are requesting that your agency/office provide information concerning environmental and land use constraints or other issues of interest to your agency/office within the study area. Your input will be an important consideration in the delineation and evaluation of alternative routes and in the assessment of potential impacts of those routes. In addition, we would appreciate receiving information about any permits, easements, or other approvals by your agency/office that you believe could affect this project, or if you are aware of any major proposed

development or construction in the study area. Upon certification of a final route for the proposed project, Xcel will identify and obtain necessary permits, if required, from your agency/office.

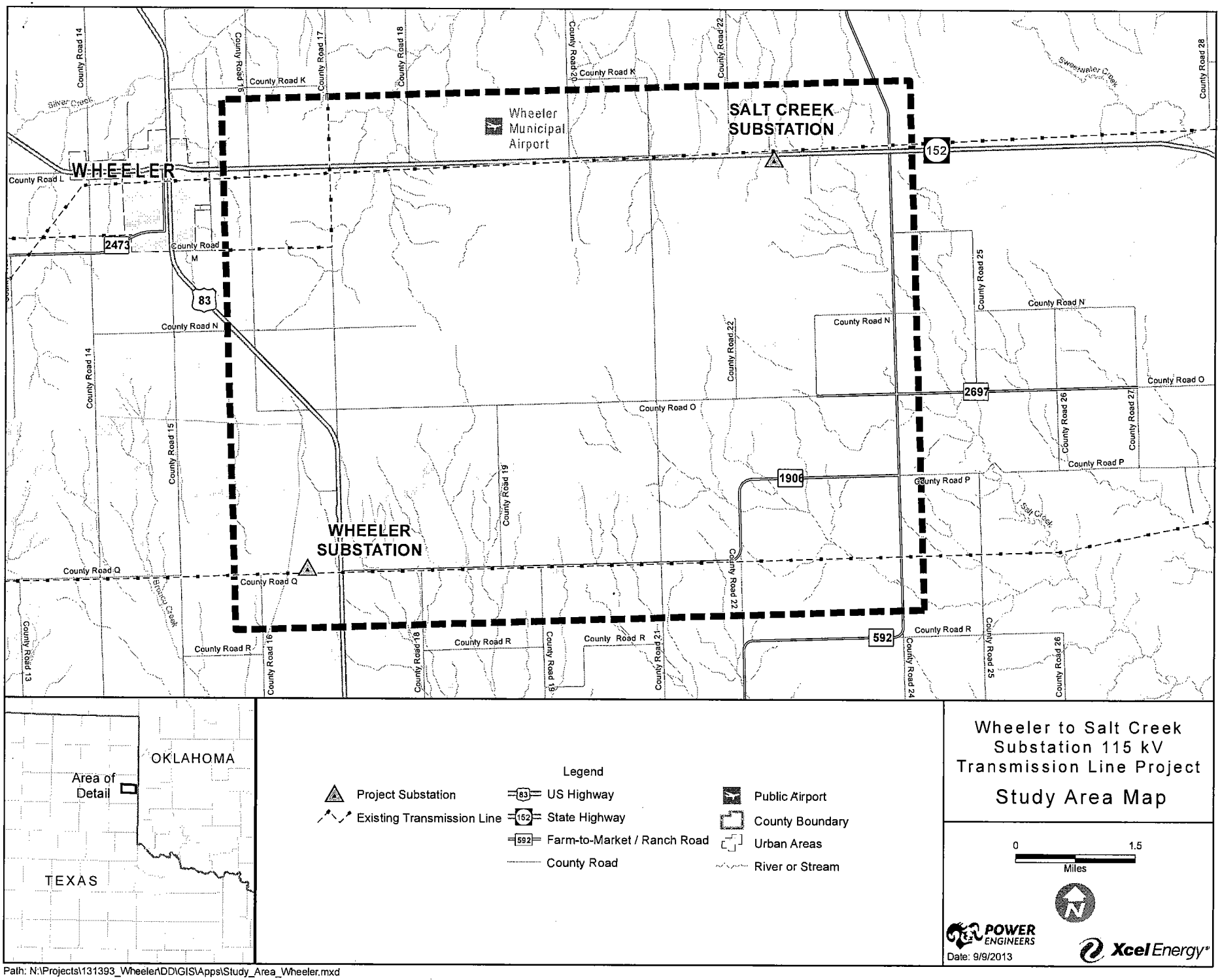
Thank you for your assistance with this proposed electric transmission line project. Please contact me by phone at 512-795-3700, extension 6903 or by e-mail at anastacia.santos@powereng.com if you have any questions or require additional information.

Sincerely,

Anastacia Santos
Project Manager

Enclosure:
Study Area Map

Sent Via Mail
DMS 131393
PER-01



Path: N:\Projects\131393_Wheeler\DD\GIS\Apps\Study_Area_Wheeler.mxd

From: Darren Schubert 5523
To: Jarvis, Jonathan H.
Subject: Xcel Wheeler to Salt Creek Transmission Line Project
Date: Thursday, August 08, 2013 1:07:00 PM

Hello Jonathan,

Xcel Energy is proposing to construct a a new single pole, 115 kV line, approximately 14 miles in length, which would connect the existing Wheeler Substation to the proposed Salt Creek Substation entirely within Wheeler County. POWER Engineers, Inc. is preparing an Environmental Assessment to support the CCN application with the PUC. POWER is gathering data on the existing environment and identifying environmental, cultural and land use constraints within the study area. Using this data, POWER will identify potential alternative route links that consider these environmental, cultural and land use constraints.

We are requesting access to GIS data from the TexSite archeological sites database maintained at the Texas Archeological Research Laboratory. The data we are requesting from your office includes shape files for previously documented archeological sites. POWER will use the cultural resource data in the delineation and evaluation of alternative routes and in the assessment of the potential impacts of those routes. The specific USGS quadrangles for which we request the data include the **Wheeler**, **Wheeler SE**, **Twitty**, **Kelton**, **Kelton NW**, **Kelton SE**, **Briscoe**, **Allison**, and **Allison SW** quadrangles. I currently hold THC Restricted Cultural Resources Information Access Card Number 1321, valid through October 2016. Our GIS staff has extensive experience handling confidential information, including cultural resource data. Please forward the data to me at darren.schubert@powereng.com. We understand the importance of not letting the data shared by the THC or TARL be made available to the public. Thank you for your assistance with this proposed electric transmission line project. Please contact the Project Manager, Anastacia Santos, by phone at (512) 795-3700, or by e-mail at anastacia.santos@powereng.com if you have any questions or require additional information. Thanks,

Darren Schubert

Archaeologist

509 N. Sam Houston Parkway East, Suite 200

Houston, Texas 77060

281-765-5523

darren.schubert@powereng.com

POWER Engineers, Inc.
Energy i Facilities i Communications i Environmental

www.powereng.com

From: Jarvis, Jonathan H.
To: Darren Schubert 5523
Subject: GIS Data: Wheeler to Salt Creek #131393
Date: Thursday, August 08, 2013 1:35:51 PM
Attachments: TARL_8AUG2013.zip

Darren:

The shapefiles containing the archeological site location data for your Xcel Wheeler to Salt Creek Transmission Line study area are attached in a zip file. The standard caveat applies: site location information is protected by the National Historic Preservation Act of 1966 (as amended), Title III §304 and by the Texas Antiquities Code §191.004, and is not intended for public distribution. Please let me know if you have any questions.

Cheers,
Jonathan

Jonathan H. Jarvis, MLA, M.S., RPA
Archeologist, etc.
Texas Archeological Research Laboratory
The University of Texas at Austin
Phone: 512/471-5959
www.utexas.edu/research/tarl/
www.texasbeyondhistory.net

Philosophìa Krateìto Photôn

From:	Steve Hicks 5524
To:	txndd@tpwd.texas.gov
Cc:	Anastacia Santos 6903; Gray Rackley 6912
Subject:	TXNDD Request for Wheeler to Salt Creek Transmission Line Project
Date:	Wednesday, August 14, 2013 4:03:17 PM
Attachments:	SA.SHX SA.SHP SA.SBX SA.SBN SA.PRJ SA.DBF

Texas Natural Diversity Database,

POWER Engineers Inc. is requesting a TXNDD review for a proposed 115 kV transmission line project on behalf of Xcel Energy. The project proposed is within **Wheeler County, Texas** and is located on/near the following **USGS 7.5 minute quadrangle maps:**

Wheeler

Kelton NW

Kelton

Wheeler SE

Twitty

Kelton SE

I have included a shapefile of the study area boundary to facilitate your review.

The TXNDD data review is relevant for the routing study and environmental assessment for the project. The review deliverable should include an ArcGIS file of element occurrences, Element Occurrence Record List and EOR Report. This information will assist us during the routing process and drafting the environmental assessments for the project.

Please provide all three of the following types of data for each of the USGS quadrangles listed for each project location:

ArcGIS shapefile,

Element Occurrence Record list, and

EOR report

Thanks,

Steve Hicks

Senior Biologist/Environmental Specialist

509 N. Sam Houston Parkway East Ste. 200

Houston, TX 77060

Office: 281-765-5524

Mobile: 361-655-1020

steve.hicks@powereng.com

POWER Engineers, Inc.
Energy i Facilities i Communications i Environmental

www.powereng.com

From: Steve Hicks 5524
To: Gray Rackley 6912
Cc: Anastacia Santos 6903
Subject: FW: TXNDD Request for Wheeler to Salt Creek Transmission Line Project
Date: Friday, August 23, 2013 1:47:05 PM
Attachments: hicks_20130814.zip

FYI

From: Texas Natural Diversity Database [mailto:TexasNatural.DiversityDatabase@tpwd.texas.gov]
Sent: Friday, August 23, 2013 1:30 PM
To: Steve Hicks 5524
Subject: RE: TXNDD Request for Wheeler to Salt Creek Transmission Line Project

Mr. Hicks,

Please be aware that the email address for information requests is now: txndd@tpwd.texas.gov

Your information request area contains known ecologically significant stream segments. Use the link below to obtain that data.

The Texas Natural Diversity Database (**TXNDD**) includes federal, and state listed and tracked Threatened, Endangered, and Rare species. The attached .zip file contains documents that will guide you in appropriate use, restrictions, and shapefile interpretation of Texas NDD data as well as a request for adding data to the TXNDD. Also included is a shapefile of the T&E and Rare species element occurrences, information the TXNDD has available presently, within and touching the requested quads along with a companion EO **report**; areas where EO data are absent **do not mean** absence of occurrence for Threatened, Endangered, and Rare species. Included is an **EO List** of the T&E and Rare species element occurrences that are on the quads adjacent to your request area. The **EO List** is to inform you of other potential federal, and state listed and tracked Threatened, Endangered, and Rare species within the area. To round out your review, please use the Rare, Threatened, and Endangered Species of Texas by County application found here. For questions regarding the application please contact Amy Turner at Amy.Turner@tpwd.texas.gov or by calling her directly at (361) 576-0022 x223.

- If your project area is in Travis, Williamson, or Bexar county it is highly recommended that you download the GIS shapefiles for the Karst Zones from the USFWS website http://www.fws.gov/southwest/es/austintexas/ and/or contact Jenny Wilson – USFWS at (512)490-0057 x 231 for a review of the project location. All three counties are known to have multiple important karst features.
- If your information request includes one or more records for **Bald Eagle** or **colonial waterbirds**, contact Brent Ortego at brent.ortego@tpwd.state.tx.us or (361) 576-0022 for more up-to-date information on the ***Bald Eagle*** or **colonial waterbirds**.
- **For communication towers**, in addition to the USFWS guidelines in the attachment and the links at towerkill.com, there is research identifying a simple way to reduce bird strike and high bird mortality at towers. Gehring J., P. Kerlinger, A.M. Manville II. (2009) Communication towers, lights, and birds: successful methods of reducing the frequency of avian collisions. Ecological Applications: Vol. 19, No. 2, pp. 505-514.doi: 10.1890/07-1708.1
- For **wind energy or transmission related projects**, to obtain the Department's guidelines it is also recommended to contact Julie Wicker at julie.wicker@tpwd.state.tx.us or (512)389-4579. In addition, the U.S. Fish and Wildlife Service's Interim Guidance on Avoiding and Minimizing Wildlife Impacts from Wind Turbines, along with other helpful links and information, can be accessed at: http://www.fws.gov/habitatconservation/wind.html.
- If your information request contains records for **Texas trailing phlox** you should contact Jason Singhurst at jason.singhurst@tpwd.state.tx.us or (512) 389-8726.

Absence of information in an area does not mean absence of occurrence. *Given the small proportion of public*

versus private land in Texas, the TXNDD does not include a representative inventory of rare resources in the state. Data from the TXNDD do not provide a definitive statement as to the presence, absence, or condition of special species, natural communities, or other significant features within your project area. These data cannot substitute for an on-site evaluation by qualified biologists.

Additional sources of data:
TPWD Annotated County Lists: http://www.tpwd.state.tx.us/landwater/land/maps/gis/ris/endangered_species/
USFWS species lists: http://ecos.fws.gov/tess_public/servlet/gov.doi.tess_pulic.servlets.EntryPage
USFWS CRITICAL HABITAT: http://criticalhabitat.fws.gov/
Ecologically Significant Stream Segments: http://www.tpwd.state.tx.us/landwater/land/maps/gis/data_downloads/
Ecologically Significant Stream Segment Information:
http://www.tpwd.state.tx.us/landwater/water/environconcerns/water_quality/sigsegs/

Bob Gottfried
Texas Natural Diversity Database Administrator
Texas Parks and Wildlife - Wildlife Division
4200 Smith School Rd
Austin, TX 78744
512-389-8744
TXNDD Information

Please make a note of my new email address: Bob.Gottfried@tpwd.texas.gov

---

From: Steve Hicks [mailto:steve.hicks@powereng.com]
Sent: Wednesday, August 14, 2013 4:03 PM
To: Texas Natural Diversity Database
Cc: Anastacia Santos; Gray Rackley
Subject: TXNDD Request for Wheeler to Salt Creek Transmission Line Project

Texas Natural Diversity Database,

POWER Engineers Inc. is requesting a TXNDD review for a proposed 115 kV transmission line project on behalf of Xcel Energy. The project proposed is within **Wheeler County, Texas** and is located on/near the following **USGS 7.5 minute quadrangle maps:**

Wheeler
Kelton NW
Kelton
Wheeler SE
Twitty
Kelton SE

I have included a shapefile of the study area boundary to facilitate your review.

The TXNDD data review is relevant for the routing study and environmental assessment for the project. The review deliverable should include an ArcGIS file of element occurrences, Element Occurrence Record List and EOR Report. This information will assist us during the routing process and drafting the environmental assessments for the project.

Please provide all three of the following types of data for each of the USGS quadrangles listed for each project location:

ArcGIS shapefile,
Element Occurrence Record list, and
EOR report

Thanks,

Steve Hicks
Senior Biologist/Environmental Specialist
509 N. Sam Houston Parkway East Ste. 200
Houston, TX 77060
Office: 281-765-5524
Mobile: 361-655-1020
steve.hicks@powereng.com

POWER Engineers, Inc.
Energy ■ Facilities ■ Communications ■ Environmental
www.powereng.com

From:	Lea Davenport 6900
To:	IMRextrev@nps.gov
Cc:	Anastacia Santos 6903
Subject:	Proposed Wheeler-Salt Creek 115 kV Transmission Line Project Wheeler County, Texas
Date:	Wednesday, September 11, 2013 5:19:27 PM

Per your request, here is our letter for your review and comment.

Dear Mr. Wessels,

Xcel Energy Inc. (Xcel) will be filing for a Certificate of Convenience and Necessity (CCN) with the Public Utility Commission of Texas (PUCT) to design and construct a new 115 kilovolt (kV) transmission line in a study area within Wheeler County, Texas. The new transmission line will connect the existing Wheeler Substation, which is located approximately 5.2 miles south-southwest of Wheeler, to the new Salt Creek Substation which will be located along State Highway 152, approximately 7.5 miles east of Wheeler. The location of the study area, existing substations and transmission lines are shown on the enclosed map.

POWER Engineers, Inc. (POWER) is preparing an Environmental Assessment (EA) and Alternative Route Analysis for Xcel to support their CCN application for the PUCT. POWER is gathering data on the existing environment and identifying environmental and land use constraints within the study area that will be used in the creation of an environmental and land use constraints map. POWER will identify potential alternative route segments that consider these environmental and land use constraints.

We are requesting that your agency/office provide information concerning environmental and land use constraints or other issues of interest to your agency/office within the study area. Your input will be an important consideration in the delineation and evaluation of alternative routes and in the assessment of potential impacts of those routes. In addition, we would appreciate receiving information about any permits, easements, or other approvals by your agency/office that you believe could affect this project, or if you are aware of any major proposed development or construction in the study area. Upon certification of a final route for the proposed project, Xcel will identify and obtain necessary permits, if required, from your agency/office.

Thank you for your assistance with this proposed electric transmission line project. Please contact me by phone at 512-795-3700, extension 6903 or by e-mail at anastacia.santos@powereng.com if you have any questions or require additional information.

Sincerely,

Anastacia Santos

Project Manager

Please let me know if you have any issues with this email or its attachment.

Regards,

Lea M. Davenport

Office Administrator

Central Region Env Svc PM Group Austin

7600B North Capital of Texas Hwy

Suite 320

Austin, TX 78731

512.795.3700

POWER Engineers, Inc.
Energy • Facilities • Communications • Environmental

www.powereng.com

Texas Water Development Board

P.O. Box 13231, 1700 N. Congress Ave.
Austin, TX 78711-3231, www.twdb.texas.gov
Phone (512) 463-7847, Fax (512) 475-2053

September 16, 2013

Ms. Anastacia Santos
Project Manager
Power Engineers
7600B North Capital of Texas Highway, Suite 320
Austin, TX 78731

Re: Proposed Wheeler – Salt Creek 115 kV Electric Transmission Line Project, Wheeler County

Dear Ms. Santos:

We were informed of your request for information concerning environmental assessment and alternative route analysis for the proposed 115 kilovolt (kV) electric transmission line that will connect the existing Wheeler substation to the new Salt Creek substation in Wheeler County. To plan for the state's water resources and provide affordable water and wastewater services, the Texas Water Development Board (TWDB) provides planning, geographic data collection and dissemination, and financial and technical assistance services. TWDB is not a regulatory agency and does not issue any permits.

Based on the map and information provided, it appears that the proposed transmission line would not conflict with any recommended water management strategies in the regional or state water plans. Therefore, we have no specific comments in regard to the proposed project.

If you have any further questions, please contact me at (512) 936-0852.

Sincerely,

W. David Meesey
Program Specialist VII
Water Resources Planning and Information

TEXAS GENERAL LAND OFFICE

JERRY PATTERSON, COMMISSIONER

September 20, 2013

Anastacia Santos
Power Engineers, Inc.
7600B N. Capital of Texas Hwy, Suite 320
Austin, Texas 78731-1190

Re: Wheeler-Salt Creek 115kV Transmission Line Project
POWER Engineers, Inc. Project No. 131393
Wheeler County, Texas

Dear Ms. Santos:

On behalf of Commissioner Patterson, I would like to thank you for your letter concerning the above referenced project.

Using your map depicting the project preliminary study area, it does not appear that the General Land Office will have any environmental issues or land use constraints at this time.

When a final route for this proposed project has been determined, please contact me and we can assess the route and determine if the project will cross any streambeds or Permanent School Fund (PSF) land that would require an easement from our agency.

In the interim, if you would like to speak to me further on this project, I can be reached by email at glenn.rosenbaum@glo.texas.gov or by phone at (512) 463-8180.

Again, thank you for your inquiry.

Sincerely,

Glenn Rosenbaum

Glenn Rosenbaum
Team Leader, Right-of-Way Department
Asset Inspection

Texas General Land Office
Stephen F. Austin Building • 1700 North Congress Avenue, Texas 78701-1495
Post Office Box 12873 • Austin, Texas 78711-2873
Phone: 512-463-5001 • 800-998-4GLO
www.glo.state.tx.us

United States Department of Agriculture

NRCS

Natural Resources Conservation Service
101 South Main
Temple, TX 76501-7602

September 23, 2013

Ms. Anastacia Santos
Project Manager
Power Engineers, Inc.
7600B N. Capital of Texas Hwy.
Suite 320
Austin, TX 78731

Dear Ms. Santos:

We have reviewed the information and map pertaining to POWER Engineers Project No. 131393, Wheeler-Salt Creek 115 kV Transmission Line Project, Wheeler County, Texas.

This project should have no significant adverse impact on the environment or natural resources in the area. We do not require any permits, easements, or approvals for activities such as this.

Thank you for the opportunity to review this proposed project.

Sincerely,

Salvador Salinas

SALVADOR SALINAS
State Conservationist

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Ecological Services
2005 NE Green Oaks Blvd., Suite 140
Arlington, Texas 76006

In Reply Refer To:
02ETAR00-2013-I-0361

September 24, 2013

Ms. Anastacia Santos
POWER Engineers, Inc.
7600B N. Capitol of Texas Highway, Suite 320
Austin, Texas 78731

Dear Ms. Santos:

This responds to POWER Engineers Inc. (POWER) September 11, 2013, letter requesting information regarding Xcel Energy Inc.'s (Xcel) proposed construction of a 115 kV transmission line from the existing Wheeler Substation located approximately 5.2 miles south-southwest of City of Wheeler, to the proposed Salt Creek Substation which will be located along State Highway 152 approximately 7.5 miles east of Wheeler, Wheeler County, Texas. Transmission line routes are yet-to-be determined within a defined study area. POWER is 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 development of an environmental and land use constraints map. POWER will then identify potential alternative routes that consider environmental and land use constraints. We are providing this information to assist you in assessing and avoiding impacts to federally listed threatened and endangered species, wetlands, and other fish and wildlife resources.

Threatened and Endangered Species

Our records indicate that the following endangered (E) and candidate (C) species have been documented, or are known to occur within Wheeler County:

interior least tern (*Sturnula antillarum*) – E
whooping crane *(Grus americana*) – E
lesser prairie-chicken (*Tympanuchus pallidicinctus*) – C

There is no designated critical habitat for listed species in Wheeler counties. Candidate species are not afforded federal protection under the Endangered Species Act; however, we recommend that potential impacts to these species be considered during project planning. For more information on the general biology of these species or questions regarding the section 7 consultation process, visit our website at http://www.fws.gov/southwest/es/arlingtontexas/.

Wetlands and Wildlife Habitat

An analysis of the study area specific to possible routes between the existing Wheeler Substation and the proposed Salt Creek Substation indicates the potential crossing of several streams and possible wetland sites. Wetlands and riparian corridors are high priority fish and wildlife habitat and a resource of national concern. They serve as important sources of food, cover, and habitat for numerous species of resident and migratory fish and wildlife. Waterfowl and other migratory birds use wetlands and riparian corridors as stopover, feeding, and nesting areas. For these reasons, we strongly recommend that all construction activities near such areas be carefully designed to avoid and/or minimize impacts to fish and wildlife resources to the maximum extent practicable and that powerline construction in wetland areas be avoided. However, lines that must cross floodplains, wetlands, and/or waterways should be designed to span them, if possible, and in such a manner as to avoid erosion and/or sedimentation. Lines that cannot span floodplains or wetlands should be constructed during dry weather and designed to minimize construction activities in the floodplain/wetland areas. If vegetation clearing is needed in riparian areas, these areas should be revegetated with native wetland and riparian vegetation to prevent erosion, reduce sedimentation, and restore impacted habitat. Revegetation efforts should be monitored to ensure disturbed stream banks are adequately stabilized.

Management techniques have been developed for the construction of powerlines that mitigate the potential environmental impacts commonly associated with these projects. These techniques involve the alignment of powerlines with regard to the terrain, vegetation, and wildlife species present within the general study area and are designed to lessen the fragmenting of forested areas by maintaining natural migratory corridors across rights-of-way (ROWs). We recommend the most current and innovative methods of minimizing environmental impacts from ROW clearing be investigated and implemented where practical to reduce the permanent loss of wildlife habitat associated with the proposed actions.

Aerial photography of the study area reveals that portions of the planned new ROW, if not constructed along existing roads, could be constructed within areas that appear to contain patches of intact upland forest, shrublands, and grasslands. For this reason, we have concerns about potential impacts to migratory birds, which are protected by the Migratory Bird Treaty Act. Therefore, we encourage Xcel to consider clearing valuable habitats within these areas (if necessary) between August 1 and March 1 to avoid the migratory bird nesting season. We also recommend that future routine vegetative maintenance (mowing, clearing) of ROWs also occur outside the migratory bird nesting season.

The Service is also concerned with the documented problem of bird mortality resulting from collisions with powerlines. Avian collisions may be significant depending on the species involved and the placement of the powerlines. Therefore, we recommend the potential for avian collisions with the proposed powerlines be considered in the planning process and those route alternatives with a high potential for avian mortality be designed with effective measures to reduce the probability of avian mortality. This would include locating powerline routes a reasonable distance from wetlands or other large water bodies to avoid bird strikes, and installing

visual markers on overhead ground wires on sections where collisions are likely to be significant. A report entitled "Suggested Practices for Avian Protection on Powerlines" (2006) is available at www.aplic.org and we recommend that Xcel consider this document when implementing raptor and migratory bird safeguards within the project.

Thank you for the opportunity to provide information on the proposed project. If you have any questions, please contact Sean Edwards of my staff at (817) 277-1100.

Sincerely,

Don R. Wilhelm

Don R. Wilhelm
Acting Field Supervisor

Texas Department of Transportation

AVIATION DIVISION
125 E. 11TH STREET • AUSTIN, TEXAS 78701-2483 • 512/416-4500 • FAX 512/416-4510

Ms. Anastacia Santos
Power Engineers, Inc.
7600B N. Capitol of Texas Highway
Suite 320
Austin, Texas 78731

September 25, 2013

Dear Ms. Santos:

I received your letter dated September 11, 2013 concerning Powers Engineers project number 131393.

Title 14, US Code, Part 77 of the Federal Aviation Administration's (FAA) Federal Aviation Regulations (FAR) requires notice to the FAA if the facility to be constructed fits either of the below listed conditions:

77.9 a. Any construction or alteration that is more than 200 ft. AGL (Above Ground Level) at its site.

77.9 b.(1) 100 to 1 for a horizontal distance of 20,000 ft. from the nearest point of the nearest runway of each airport described in paragraph (d) of this section with its longest runway more than 3,200 ft. in actual length, excluding heliports.

(2) 50 to 1 for a horizontal distance of 10,000 ft. from the nearest point of the nearest runway of each airport described in paragraph (d) of this section with its longest runway no more than 3,200 ft. in actual length, excluding heliports.

(3) 25 to 1 for a horizontal distance of 5,000 ft. from the nearest point of the nearest landing and takeoff area of each heliport described in paragraph (d) of this section

There is one public use airport in the study area; Wheeler Municipal (T59) at airport reference point 35-27-03.9N / 100-11-59.7W. The single runway is 3,565 feet in length. There are no separate public use heliports in or near the study area. If the criterion of FAR 77.9 is met, the FAA must be notified in four copies using FAA Form 7460-1, "Notice of Proposed Construction or Alteration". This form, supporting documents, and how to file electronically are available at http://oeaaa.faa.gov

Sincerely,

William B. Gunn
Compliance

POWER ENGINEERS, INC.

7600B N CAPITAL OF TEXAS HWY
SUITE 320
AUSTIN, TX 78731 USA

PHONE 512-795-3700
FAX 512-795-3704

POWER ENGINEERS

September 11, 2013
(Via Mail)

ENERGY
FACILITIES
COMMUNICATIONS
ENVIRONMENTAL

Mr. Greg Miller
Director, Planning & Programming
Texas Department of Transportation
Department of Aviation
125 E. 11th Street
Austin, TX 78701-2483

Re: Wheeler-Salt Creek 115 kV Transmission Line Project
Wheeler County, Texas
POWER Engineers, Inc. Project No. 131393

Dear Mr. Miller:

Xcel Energy Inc. (Xcel) will be filing for a Certificate of Convenience and Necessity (CCN) with the Public Utility Commission of Texas (PUCT) to design and construct a new 115 kilovolt (kV) transmission line in a study area within Wheeler County, Texas. The new transmission line will connect the existing Wheeler Substation, which is located approximately 5.2 miles south-southwest of Wheeler; to the new Salt Creek Substation which will be located along State Highway 152, approximately 7.5 miles east of Wheeler. The location of the study area, existing substations and transmission lines are shown on the enclosed map.

POWER Engineers, Inc. (POWER) is preparing an Environmental Assessment (EA) and Alternative Route Analysis for Xcel to support their CCN application for the PUCT. POWER is gathering data on the existing environment and identifying environmental and land use constraints within the study area that will be used in the creation of an environmental and land use constraints map. POWER will identify potential alternative route segments that consider these environmental and land use constraints.

We are requesting that your agency/office provide information concerning environmental and land use constraints or other issues of interest to your agency/office within the study area. Your input will be an important consideration in the delineation and evaluation of alternative routes and in the assessment of potential impacts of those routes. In addition, we would appreciate receiving information about any permits, easements, or other approvals by your agency/office that you believe could affect this project, or if you are aware of any major proposed

development or construction in the study area. Upon certification of a final route for the proposed project, Xcel will identify and obtain necessary permits, if required, from your agency/office.

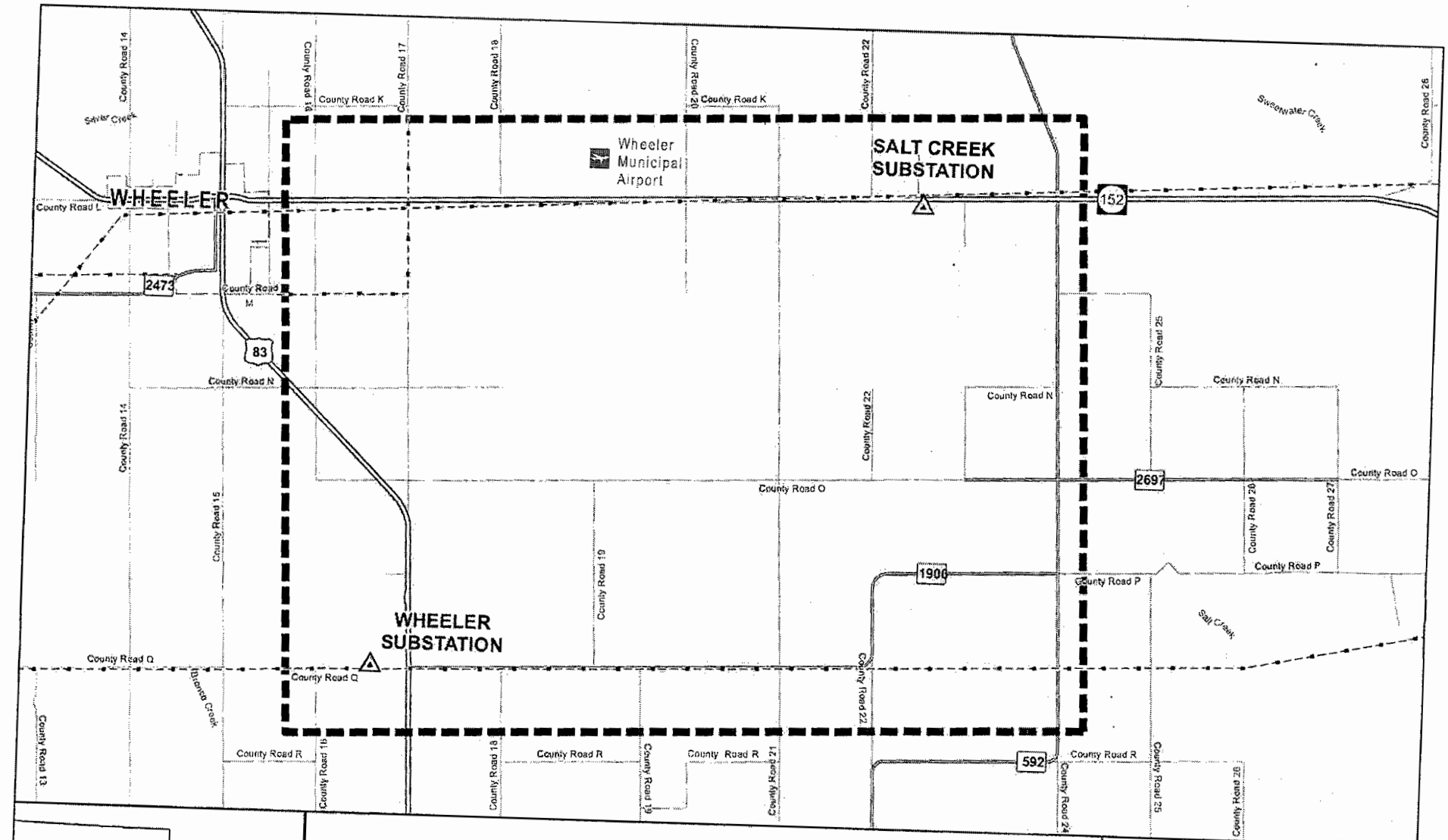
Thank you for your assistance with this proposed electric transmission line project. Please contact me by phone at 512-795-3700, extension 6903 or by e-mail at anastacia.santos@powereng.com if you have any questions or require additional information.

Sincerely,

Anastacia Santos
Project Manager

Enclosure:
Study Area Map

Sent Via Mail
DMS 131393
PER-01



Legend

- Project Substation
- Existing Transmission Line
- US Highway
- State Highway
- Farm-to-Market / Ranch Road
- County Road
- Public Airport
- County Boundary
- Urban Areas
- River or Stream

Wheeler to Salt Creek Substation 115 kV Transmission Line Project

Study Area Map

0 1.5 Miles

POWER ENGINEERS

Date: 9/9/2013

Xcel Energy®

Path: N:\Projects\131393_Wheeler\DD\GIS\Apps\Study_Area_Wheeler.mxd

From: david_hurd@nps.gov on behalf of IMRextrev, NPS
To: Anastacia Santos 6903; Lea Davenport 6900
Cc: Laurie Domler
Subject: Re: Proposed Wheeler-Salt Creek 115 kV Transmission Line Project Wheeler County, Texas
Date: Friday, October 18, 2013 9:38:10 AM

Hi Anastacia-

NPS has no comment on the subject project.

Regards,

National Park Service
Intermountain Region External Review Team
Serving MT, UT, WY, CO, AZ, NM, OK, TX
imrextrev@nps.gov

On Thu, Sep 12, 2013 at 11:16 AM, Anastacia Santos <anastacia.santos@powereng.com> wrote:

> Here is the attachment to the letter.
>
> Anastacia Santos
>
> Project Manager
>
> 7600-B N. Capital of Texas Hwy., Suite 320
>
> Austin, Texas 78731
>
> (512) 795-3700 ext. 6903 office
>
> (512) 585-3202 cell
>
> **POWER Engineers, Inc.**
> Energy ▪ Facilities ▪ Communications ▪ Environmental
>
> www.powereng.com

From: Lea Davenport 6900
Sent: Wednesday, September 11, 2013 5:19 PM
To: IMRextrev@nps.gov
Cc: Anastacia Santos 6903
Subject: Proposed Wheeler-Salt Creek 115 kV Transmission Line Project Wheeler County, Texas

Per your request, here is our letter for your review and comment.

Dear Mr. Wessels,

Xcel Energy Inc. (Xcel) will be filing for a Certificate of Convenience and Necessity (CCN) with the Public Utility Commission of Texas (PUCT) to design and construct a new 115 kilovolt (kV) transmission line in a study area within Wheeler County, Texas. The new transmission line will connect the existing Wheeler Substation, which is located approximately 5.2 miles south-southwest of Wheeler, to the new Salt Creek Substation which will be located along State Highway 152, approximately 7.5 miles east of Wheeler. The location of the study area, existing substations and transmission lines are shown on the enclosed map.

POWER Engineers, Inc. (POWER) is preparing an Environmental Assessment (EA) and Alternative Route Analysis for Xcel to support their CCN application for the PUCT. POWER is gathering data on the existing environment and identifying environmental and land use constraints within the study area that will be used in the creation of an environmental and land use constraints map. POWER will identify potential alternative route segments that consider these environmental and land use constraints.

We are requesting that your agency/office provide information concerning environmental and land use constraints or other issues of interest to your agency/office within the study area. Your input will be an important consideration in the delineation and evaluation of alternative routes and in the assessment of potential impacts of those routes. In addition, we would appreciate receiving information about any permits, easements, or other approvals by your agency/office that you believe could affect this project, or if you are aware of any major proposed
development or construction in the study area. Upon certification of a final route for the proposed project, Xcel will identify and obtain necessary permits, if required, from your agency/office.

Thank you for your assistance with this proposed electric transmission line project. Please contact me by phone at 512-795-3700, extension 6903 or by e-mail at anastacia.santos@powereng.com if you have any questions or require additional information.

Sincerely,

Anastacia Santos

Project Manager

Please let me know if you have any issues with this email or its attachment.

Regards,

Lea M. Davenport

Office Administrator

Central Region Env Svc PM Group Austin

7600B North Capital of Texas Hwy

Suite 320

Austin, TX 78731

512.795.3700

POWER Engineers, Inc.
Energy ▪ Facilities ▪ Communications ▪ Environmental

www.powereng.com

environmentally responsible.

DEPARTMENT OF THE ARMY
CORPS OF ENGINEERS, TULSA DISTRICT
1645 SOUTH 101ST EAST AVENUE
TULSA, OKLAHOMA 74128-4609

October 21, 2013

Regulatory Office

Ms. Anastacia Santos
Power Engineers
7600B North Capital of Texas HWY, Suite 320
Austin, TX 78731

Dear Ms. Santos:

Please reference your letter dated September 11, 2013 associated with the above listed project. We have reviewed the site relative to Section 404 of the Clean Water Act (CWA).

The provided information indicates that regulated water bodies are within the study area. A Department of the Army (DA) permit may be required if any portion of the project requires placement of dredge or fill material into jurisdictional Waters of the United States.

We ask that you submit any future requests along with a site description and complete construction plans concerning any planned impacts to possible jurisdictional areas which may be present on the described lands.

If you have any questions or if further assistance is desired, contact Mr. Bryan Noblitt at (918) 669-4904. Please refer to case number SWT-2013-668, during any future correspondence. If you desire to complete a "Customer Service Survey" on your experience with the Corps Regulatory Program, you are invited to visit http://per2.nwp.usace.army.mil/survey.html on the internet at your convenience and submit your comments.

Sincerely,

for: Andrew R. Commer
Chief, Regulatory Office

TEXAS PARKS & WILDLIFE

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Commissioners

T. Dan Friedkin
Chairman
Houston

Ralph H. Duggins
Vice-Chairman
Fort Worth

Roberto De Hoyos
Austin

Dan Allen Hughes, Jr.
Beeville

Bill Jones
Austin

James H. Lee
Houston

Margaret Martin
Boerne

S. Reed Morian
Houston

Dick Scott
Wimberley

Lee M. Bass
Chairman-Emeritus
Fort Worth

Carter P. Smith
Executive Director

November 15, 2013

Ms. Anastacia Santos
POWER Engineers, Inc.
7600B N. Capital of Texas Hwy, Suite 320
Austin, TX 78731

RE: Preliminary Information Request for the Proposed Wheeler to Salt Creek 115-kilovolt Transmission Line Project; Wheeler County

Dear Ms. Santos:

Texas Parks and Wildlife Department (TPWD) received the preliminary information request regarding the above-referenced proposed transmission line project. TPWD staff has reviewed the information provided and offers the following comments concerning this project.

TPWD Wildlife Habitat Assessment Program is now accepting projects through electronic submittal. Future project review requests can be submitted to WHAB@tpwd.texas.gov. If submitting requests electronically, please include geographic location files when available (e.g., GIS shape file, .kmz, etc.).

Project Description

Xcel Energy Inc. (Xcel) will be filing for a Certificate of Convenience and Necessity (CCN) with the Public Utility Commission (PUC) to design and construct a new 115-kilovolt (kV) transmission line in Wheeler County. The new transmission line will connect the existing Wheeler Substation, which is located approximately 5.2 miles south of Wheeler, to the new Salt Creek Substation, which will be located along SH 152, approximately 7.5 miles east of Wheeler. POWER Engineers, Inc. (POWER) is preparing an Environmental Assessment (EA) and Alternative Route Analysis to support Xcel's CCN application to the PUC. POWER is gathering data on the existing environment and identifying environmental and land use constraints within the study area that will be used in the EA.

Recommendation: TPWD recommends using existing facilities whenever possible. Where new construction is the only feasible option, TPWD recommends routing new transmission lines along existing roads, pipelines, transmission lines, or other utility right-of-way (ROW) and easements to reduce habitat fragmentation. By utilizing existing utility corridors, county roads and highway ROWs, adverse impacts to fish and wildlife resources would be mitigated by avoiding and/or minimizing the impacts to undisturbed habitats. Please see the attached *TPWD Recommendations for Electrical*

4200 SMITH SCHOOL ROAD
AUSTIN, TEXAS 78744-3291
512.389.4800
www.tpwd.state.tx.us

Transmission/Distribution Line Design and Construction. Please review the recommendations and incorporate these measures into design and construction plans.

Federal Laws

Endangered Species Act

Federally-listed animal species and their habitat are protected from "take" on any property by the Endangered Species Act (ESA). Take of a federally-listed species can be allowed if it is "incidental" to an otherwise lawful activity and must be permitted in accordance with Section 7 or 10 of the ESA. Any take of a federally-listed species or its habitat without the required take permit (or allowance) from the U.S. Fish and Wildlife Service (USFWS) is a violation of the ESA.

Lesser Prairie-Chicken (*Tympanuchus pallidicinctus*)

On December 11, 2012, the USFWS issued a proposed rule to list the Lesser Prairie-Chicken (LPC or LEPC) as threatened under the ESA. According to the proposed rule, the primary factors supporting the proposed threatened status for the LPC include "the presence of roads and manmade vertical structures including towers, utility lines, fences, turbines, wells, and buildings." The USFWS will publish a final determination concerning the proposed listing by March 30, 2014.

The LPC Interstate Working Group, which includes a representative from TPWD, recently developed the LPC Range-Wide Conservation Plan (RWP) and submitted it to the USFWS for consideration during deliberations on the proposed listing of this species. The RWP describes a locally-controlled and innovative approach for maintaining state authority to conserve the LPC and, if implemented in a timely manner, to influence a final decision to preclude the need to list the LPC under the ESA. This voluntary RWP is to be administered by the Western Association of Fish and Wildlife Agencies (WAFWA) and the Foundation for Western Fish and Wildlife. Participants will be required to document their commitment by signing a WAFWA Certificate of Participation (WCP) and entering into the accompanying WAFWA Conservation Agreement or signing onto other permitting mechanisms held by WAFWA through the RWP. Additional information including a link to the RWP can be found at http://www.wafwa.org/html/rangewide_lpc_conservation_plan.shtml.

On October 23, 2013, after an extensive review, the USFWS found the RWP to be consistent with criteria proposed for conserving the LPC. TPWD notes that the USFWS endorsement of the RWP is not a decision by the USFWS that implementing the plan will preclude the need to protect the LPC under the ESA.

The USFWS will carefully consider the plan, its implementation and effectiveness when they make a final determination in March 2014 on whether to list the LPC under the ESA. The USFWS will revise a proposed 4(d) special rule for the LPC to more specifically identify the RWP as one that, when implemented, will address the conservation needs of the species. If the USFWS ultimately determines that the LPC should be listed as a threatened species, the revised 4(d) rule would provide a mechanism for ESA compliance. Linking the plan to a 4(d) special rule would offer participating landowners and industry participants regulatory certainty, as actions carried out in accordance with the RWP would be in compliance with the ESA, even if the species requires ESA protection.

Construction, operations, maintenance, decommissioning, and remediation of power lines are considered Covered Activities under the RWP. The Covered Area of the RWP includes public and private property that currently provides or could potentially provide suitable habitat for the LPC within the current estimated occupied range of the LPC and 10 miles around that range (EOR+10). The Covered Area is represented in the Southern Great Plains Crucial Habitat Assessment Tool (CHAT, available at http://www.kars.ku.edu/maps/sgpchat/). As shown on the attached map, the project study area is mapped as CHAT Category 3 (Modeled Habitat).

Recommendation: Enrollment is recommended for sites that are within the EOR+10 or where the impact buffer of a new project extends into the EOR+10. Given the location of the proposed project in the EOR+10, TPWD recommends Xcel enroll in the voluntary RWP for this project as well as any future projects within the EOR+10.

TPWD recommends POWER and Xcel monitor the listing status of the LPC during planning, construction, and maintenance of this project.

The RWP includes a process of project evaluation for avoidance, minimization, and mitigation of threats. The standard for avoidance is that no impacts are expected to occur, and the standard for minimization is that impacts will be minimized through design, siting, and other available methods. Mitigation will be utilized to offset any remaining impacts after minimization.

Utilization of existing corridors may reduce or eliminate mitigation costs. Any development contained within previously impacted habitat effectively reduces the acres of new impact and generates no impact units and results in no mitigation costs beyond enrollment costs. New impact acres that extend outside of prior impact buffers generate habitat impact units and resulting mitigation costs. As shown on the attached map, the CHAT provides information regarding existing infrastructure within the EOR+10. This information was compiled from all

available spatial data for active oil and gas wells, wind turbines, cell towers, transmission and distribution lines, and roads. Each type of development was buffered using the appropriate impact buffer distance defined in the RWP. Mapped infrastructure is based on the best spatial data available and is provided to assist in planning. However, due to the inexact nature of available spatial data, the presence of existing infrastructure should be verified during field surveys.

Recommendation: TPWD recommends POWER and Xcel review the process for avoidance, minimization, and mitigation in the RWP. TPWD notes that this process starts with pre-project planning, which includes LPC surveys of proposed project sites in CHAT categories 1-3 if surveys have not been conducted within the previous five years. Alternately, the project proponent can assume the site is occupied with active leks.

TPWD recommends Xcel review the Conservation Measures discussed in the RWP that are anticipated for issuance of a WCP. TPWD recommends Xcel site the proposed line within existing impact buffers and implement all feasible measures for avoidance and minimization of habitat loss and fragmentation, collision and other direct and indirect sources of mortality, and disturbance of breeding, nesting, and brood rearing activities. Where these impacts cannot be avoided, TPWD recommends Xcel participate in the WAFWA Mitigation Framework discussed in the RWP. Please contact this office for more information on enrollment in the RWP.

Clean Water Act

Section 404 of the Clean Water Act establishes a federal program to regulate the discharge of dredged and fill material into the waters of the United States, including wetlands. The U.S. Army Corps of Engineers (USACE) and the Environmental Protection Agency are responsible for regulating water resources under this act. Although the regulation of isolated wetlands has been removed from the USACE permitting process, both isolated and jurisdictional wetlands provide habitat for wildlife and help protect water quality.

As seen on the attached map, several small creeks and intermittent tributaries are located within the project study area.

Recommendation: If the proposed project would impact waterways or associated wetlands, TPWD recommends POWER and Xcel consult with the USACE for potential impacts to waters of the United States including jurisdictional determinations, delineations, and mitigation. All waterways and associated floodplains, riparian corridors, playa lakes, and wetlands provide valuable wildlife habitat and should be protected to the maximum extent

possible. Natural buffers contiguous to any wetlands or aquatic systems should remain undisturbed to preserve wildlife cover, food sources, and travel corridors. During construction, trucks and equipment should use existing bridge or culvert structures to cross creeks. Destruction of inert microhabitats in waterways such as snags, brush piles, fallen logs, creek banks, pools, and gravel stream bottoms should be avoided, as these provide habitat for a variety of fish and wildlife species and their food sources. Erosion controls and sediment runoff control measures should be installed prior to construction and maintained until disturbed areas are permanently revegetated using site specific native vegetation. Measures should be properly installed in order to effectively minimize the amount of sediment and other debris entering the waterway.

Migratory Bird Treaty Act

The Migratory Bird Treaty Act (MBTA) prohibits taking, attempting to take, capturing, killing, selling/purchasing, possessing, transporting, and importing of migratory birds, their eggs, parts and nests, except when specifically authorized by the Department of the Interior. This protection applies to most native bird species, including ground nesting species. The USFWS Migratory Bird Office can be contacted at (505) 248-7882 for more information on potential impacts to migratory birds.

As discussed above, several small creeks are located within the project study area. Riparian corridors, creeks, wetlands, and lakes provide habitat for a host of wildlife species including wading birds, waterfowl and predator species. There is potential for collision of large-bodied wading birds, waterfowl and avian predators with electrical wires near water features. The potential for collision is amplified when electrical lines are located between foraging areas and nesting or roost sites.

Recommendation: TPWD recommends POWER and Xcel route transmission lines to avoid riparian areas, wetlands, and open water habitat, to the extent feasible. Where lines must cross or be located near creeks, drainages, wetlands, and lakes, TPWD recommends bird flight diverters be installed at the crossings or closest points to the drainages to reduce potential bird collisions in the vicinity of water features. To prevent electrocution of perching birds, TPWD recommends utilizing avian-safe designs that provide appropriate separation between two energized phases or between an energized phase and grounded equipment. TPWD recommends covering energized components with appropriate bird protection materials where adequate spacing cannot be achieved, such as installing insulated jumper wires, insulator covers, bushing caps, and arrester caps.

For additional information, please see the guidelines published by USFWS and the Avian Power Lines Interaction Committee (APLIC) in the updated guidance document *Reducing Avian Collisions with Power Lines: State of the Art in 2012*. This manual identifies best practices and provides specific guidance to help electric utilities and cooperatives reduce bird collisions with power lines. A companion document, *Suggested Practices for Avian Protection on Power Lines*, was published by APLIC and the USFWS in 2006. For more information on both documents, please visit www.aplic.org.

Measures should be taken to ensure that migratory bird species within and near the project area are not adversely impacted by construction, maintenance, and operation activities. If migratory bird species are found nesting in or adjacent to the project area, they must be dealt with in a manner consistent with the MBTA.

State Law

Parks and Wildlife Code, Section 68.015

Section 68.015 of the Parks and Wildlife Code regulates state-listed species. Please note that there is no provision for take (incidental or otherwise) of state-listed species. A copy of *TPWD Guidelines for Protection of State-Listed Species*, which includes a list of penalties for take of species, is attached for your reference. For purposes of relocation, surveys, monitoring, and research, terrestrial state-listed species may only be handled by persons permitted through the TPWD Wildlife Permits Office. For the above-listed activities that involve aquatic species please contact the TPWD Kills and Spills Team (KAST) for the appropriate authorization. For more information on Wildlife Permits, please visit http://www.tpwd.state.tx.us/business/permits/land/wildlife/research/. For more information on KAST, please visit http://www.tpwd.state.tx.us/landwater/water/environconcerns/kills_and_spills/regions/.

Based on a review of the project location, the state-listed threatened Texas horned lizard (*Phrynosoma cornutum*) may be present in the project study area. Texas horned lizards are generally active in this part of Texas from mid-April through September. At that time of year, they may be able to avoid slow (less than 15 miles per hour) moving equipment. The remainder of the year, this species hibernates only a few inches underground and they will be much more susceptible to earth moving equipment and compaction.

Recommendation: TPWD recommends Xcel avoid disturbing the Texas horned lizard and colonies of its primary food source, the Harvester ant (*Pogonomyrmex* sp.), during clearing and construction. TPWD recommends a

biological monitor be present during construction to try to relocate Texas horned lizards if found. If the presence of a biological monitor during construction is not feasible, state-listed threatened species observed during construction should be allowed to safely leave the site or be relocated by a permitted individual to a nearby area with similar habitat that would not be disturbed during construction.

A mixture of cover, food sources, and open ground is important to the Texas horned lizard and Harvester ant. TPWD recommends disturbed areas within suitable habitat for the Texas horned lizard be revegetated with site-specific native, patchy vegetation rather than sod-forming grasses.

Species of Concern/Special Features

In addition to state- and federally-protected species, TPWD tracks special features, natural communities, and rare species that are not listed as threatened or endangered. These species and communities are tracked in the Texas Natural Diversity Database (TXNDD), and TPWD actively promotes their conservation. TPWD considers it important to evaluate and, if necessary, minimize impacts to rare species and their habitat to reduce the likelihood of future endangerment.

Based on a review of TXNDD information, the following rare species and special features could potentially be impacted by project activities:

Species of Concern
Ferruginous Hawk *(Buteo regalis)*
Western Burrowing Owl *(Athene cunicularia hypugaea)*
Black-tailed prairie dog *(Cynomys ludovicianus)*

Special Features
Prairie dog towns

TXNDD records of the Black-tailed prairie dog have been documented near the project study area. The Black-tailed prairie dog is a keystone species that provides food and/or shelter for rare species tracked by TPWD such as the Ferruginous Hawk and the Western Burrowing Owl, as well as many other wildlife species.

Recommendation: TPWD recommends POWER survey the alternative routes for prairie dog towns and species that depend on them. If prairie dog towns are found in the study area, TPWD recommends Xcel avoid these areas during ROW clearing and placement of the structures. If prairie dog burrows would be disturbed as a result of the proposed project, TPWD recommends

non-harmful exclusion methods be used to encourage the animals to vacate the area prior to disturbance and discourage them from returning to the area during construction.

The Western Burrowing Owl is a ground-dwelling owl that uses the burrows of prairie dogs and other fossorial animals for nesting and roosting. The Western Burrowing Owl is protected under the MBTA and take of these birds, their nests, and eggs is prohibited. Potential impacts to the Western Burrowing Owl could include habitat removal as well as displacement and/or destruction of nests and eggs if ground disturbance occurs during the breeding season.

Recommendation: If prairie dog towns would be disturbed as a result of the proposed project, TPWD recommends the burrows be surveyed for burrowing owls. If nesting owls are found, disturbance should be avoided until the eggs have hatched and the young have fledged.

No records of rare, threatened, or endangered species have been documented within the study area in the TXNDD. However, please note that the absence of TXNDD information in an area does not imply that a species is absent from that area. Given the small proportion of public versus private land in Texas, the TXNDD does not include a representative inventory of rare resources in the state. Although it is based on the best data available to TPWD regarding rare species, the data from the TXNDD do not provide a definitive statement as to the presence, absence or condition of special species, natural communities, or other significant features within your project area. These data are not inclusive and cannot be used as presence/absence data. This information cannot be substituted for on-the-ground surveys. The TXNDD is updated continuously. As the project progresses and for future projects, please request the most current and accurate information at TexasNatural.DiversityDatabase@tpwd.texas.gov.

Recommendation: Please review the TPWD county list for Wheeler County, as rare species in addition to those discussed above could be present, depending upon habitat availability. These lists are available online at http://www.tpwd.state.tx.us/landwater/land/maps/gis/ris/endangered_species/. If during construction the project area is found to contain rare species, natural plant communities, or special features, TPWD recommends that precautions be taken to avoid impacts to them. The USFWS should be contacted for species occurrence data, guidance, permitting, survey protocols, and mitigation for federally-listed species. For the USFWS rare species lists by county, please visit http://www.fws.gov/endangered/.

Determining the actual presence of a species in a given area depends on many variables including daily and seasonal activity cycles, environmental activity

cues, preferred habitat, transiency and population density (both wildlife and human). The absence of a species can be demonstrated only with great difficulty and then only with repeated negative observations, taking into account all the variable factors contributing to the lack of detectable presence. If encountered during construction, measures should be taken to avoid impacting wildlife.

Vegetation

Based on a review of the Ecological Mapping Systems of Texas (EMST) project, the following vegetation types are found in the study area:

- Barren
- Row Crops
- CRP / Other Improved Grasslands
- High Plains: Depressional Wet Prairie
- High Plains: Depressional Wet Shrubland
- High Plains: Floodplain Deciduous Shrubland
- High Plains: Floodplain Hardwood/Juniper Forest
- High Plains: Floodplain Hardwood Forest
- High Plains: Floodplain Herbaceous Vegetation
- High Plains: Riparian Deciduous Shrubland
- High Plains: Riparian Hardwood Forest
- High Plains: Riparian Herbaceous Vegetation
- High Plains: Riparian Juniper Shrubland
- High Plains: Sand Prairie
- High Plains: Sandhill Deciduous Shrub Duneland
- High Plains: Sandy Deciduous Shrubland
- High Plains: Shortgrass Prairie
- Native Invasive: Deciduous/Juniper Woodland
- Native Invasive: Deciduous Shrubland
- Native Invasive: Deciduous Woodland
- Native Invasive: Juniper Shrubland
- Native Invasive: Mesquite Shrubland
- Native Invasive: Sand Sage Shrubland
- Open Water
- Rolling Plains: Mixed Grass Prairie
- Exotic Invasive: Elm / Olive Woodland
- Urban High Intensity
- Urban Low Intensity

A map of vegetation types in the study area is attached for your reference. Additional information about the EMST, including a link to download shapefiles, can be found at http://www.tpwd.state.tx.us/gis/gallery/.

Recommendation: TPWD recommends minimizing impacts to native vegetation to the extent feasible during project design and construction. Unavoidable loss of native vegetation should be mitigated by revegetating areas disturbed by project activities with site-specific native species.

Mitigation Plan

TPWD recommends POWER and Xcel prepare a mitigation plan to provide compensatory mitigation for those habitats where impacts from the transmission line cannot be avoided or minimized. This would include impacts to species and habitats covered under federal law (wetlands and associated habitats, threatened or endangered species) and state resource habitat types not covered by state or federal law (riparian areas, native prairies). At a minimum, TPWD recommends a replacement ratio of 1:1 for state resource habitat types. For more detailed suggestions or information regarding a mitigation plan, please contact this office.

Please provide a copy of the EA to TPWD for review and comment prior to application to the PUC for a CCN. I appreciate the opportunity to provide preliminary input on potential impacts related to this project, and I look forward to reviewing the EA. Please contact me at (512) 389-4579 if you have any questions.

Sincerely,

Julie C. Wicker

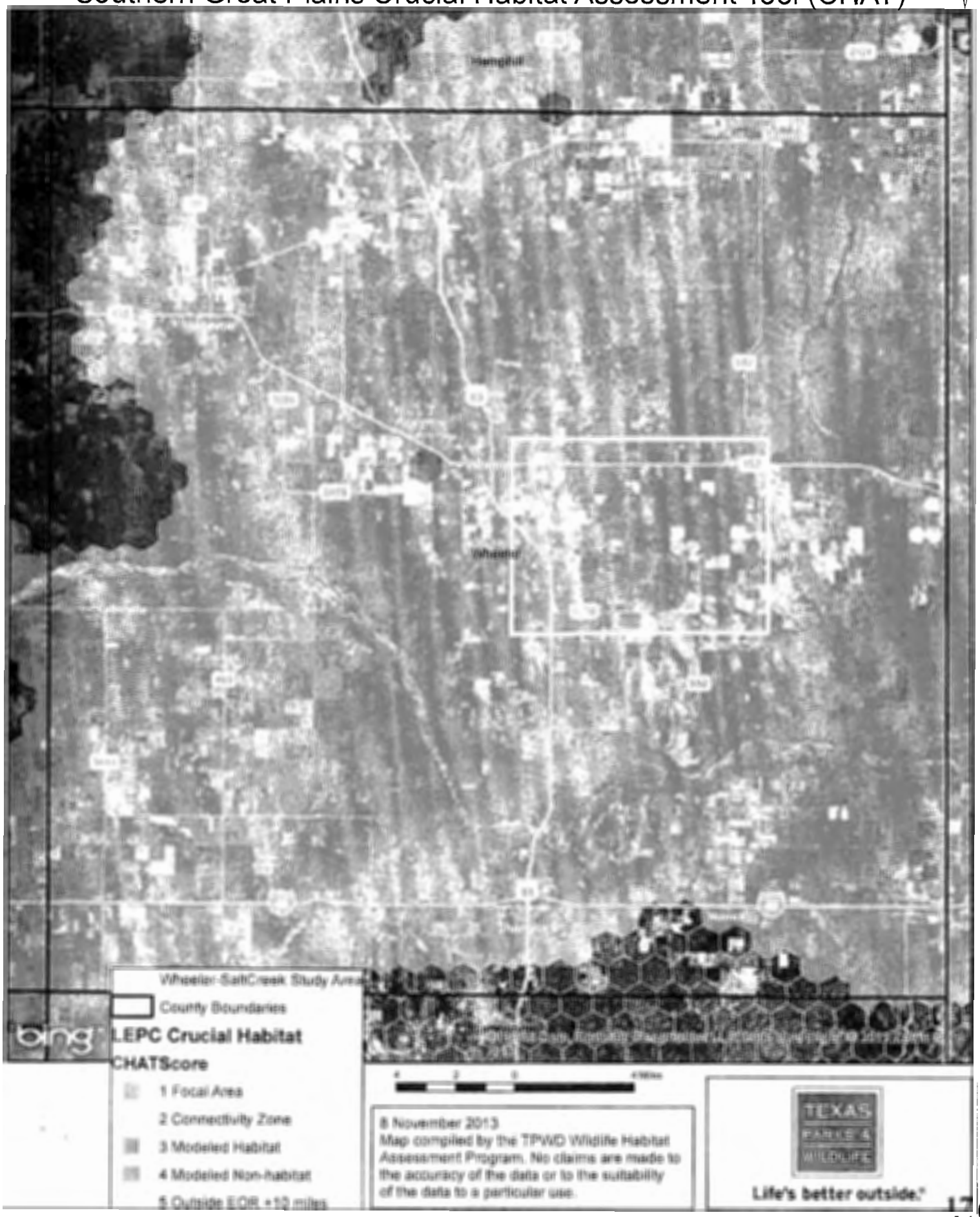
Julie C. Wicker
Wildlife Habitat Assessment Program
Wildlife Division

JCW:gg.ERCS-7734

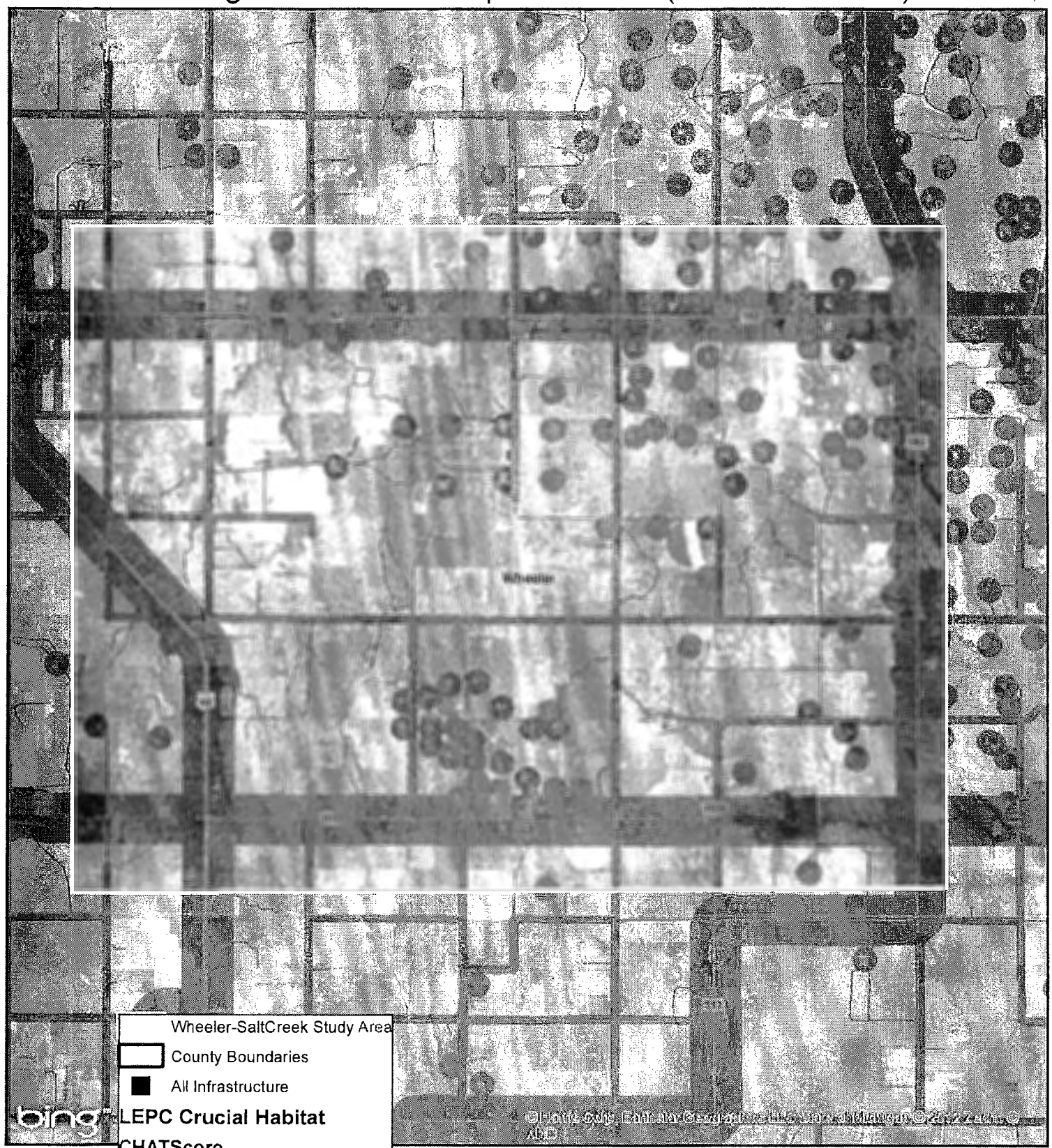
Attachments (6)

cc: Mr. Mohammed Ally, PUC (w/out attachments)

Wheeler - Salt Creek Study Area
Southern Great Plains Crucial Habitat Assessment Tool (CHAT)



Wheeler - Salt Creek Study Area
Existing Infrastructure Impact Buffers (based on CHAT)

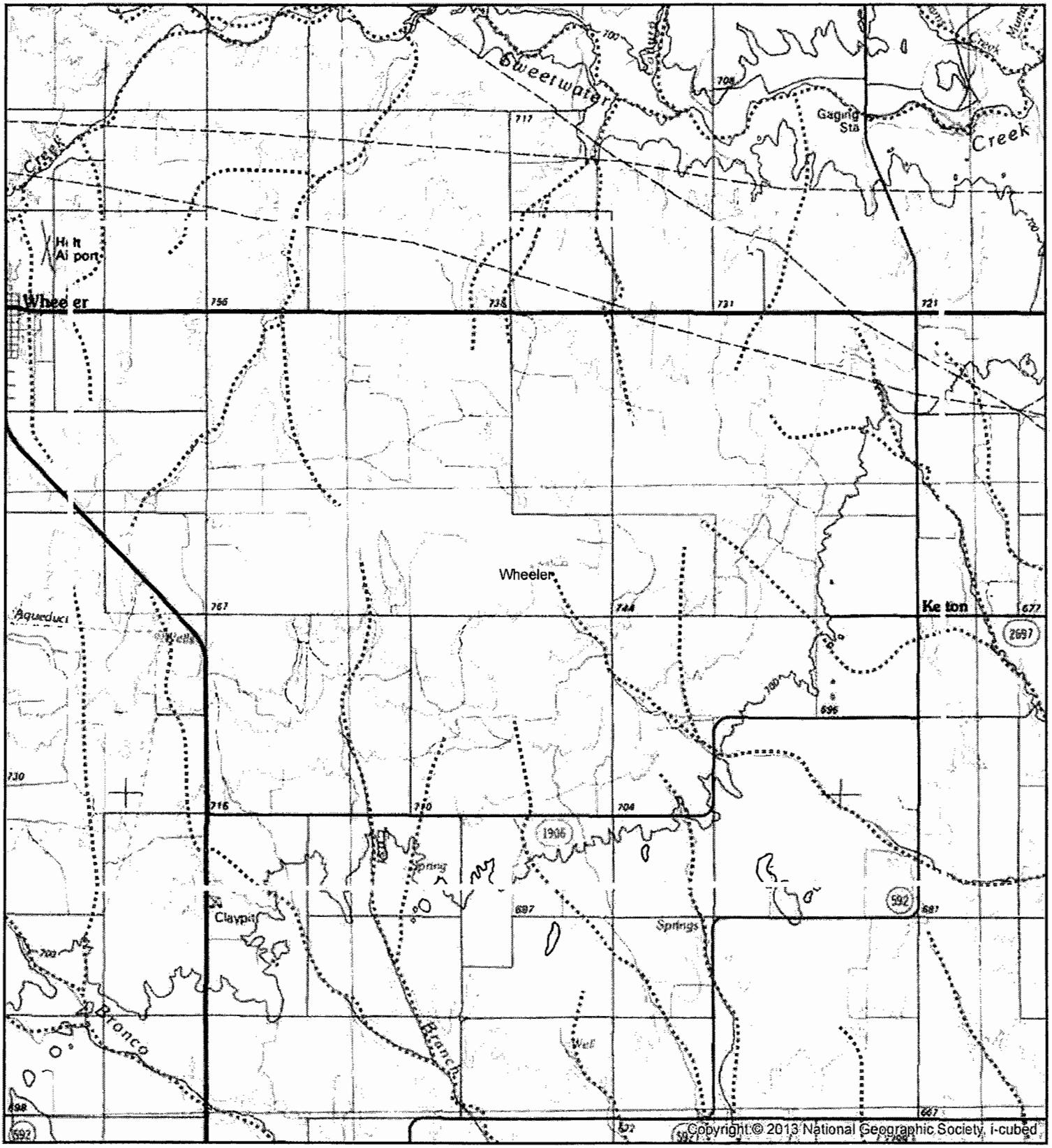


8 November 2013
Map compiled by the TPWD Wildlife Habitat Assessment Program. No claims are made to the accuracy of the data or to the suitability of the data to a particular use.

TEXAS PARKS & WILDLIFE

Life's better outside.®

Wheeler - Salt Creek Study Area
Water Resources



Wheeler-SaltCreek Study Area

County Boundaries

Rivers and Streams

8 November 2013
Map compiled by the TPWD Wildlife Habitat Assessment Program. No claims are made to the accuracy of the data or to the suitability of the data to a particular use.

TEXAS PARKS & WILDLIFE

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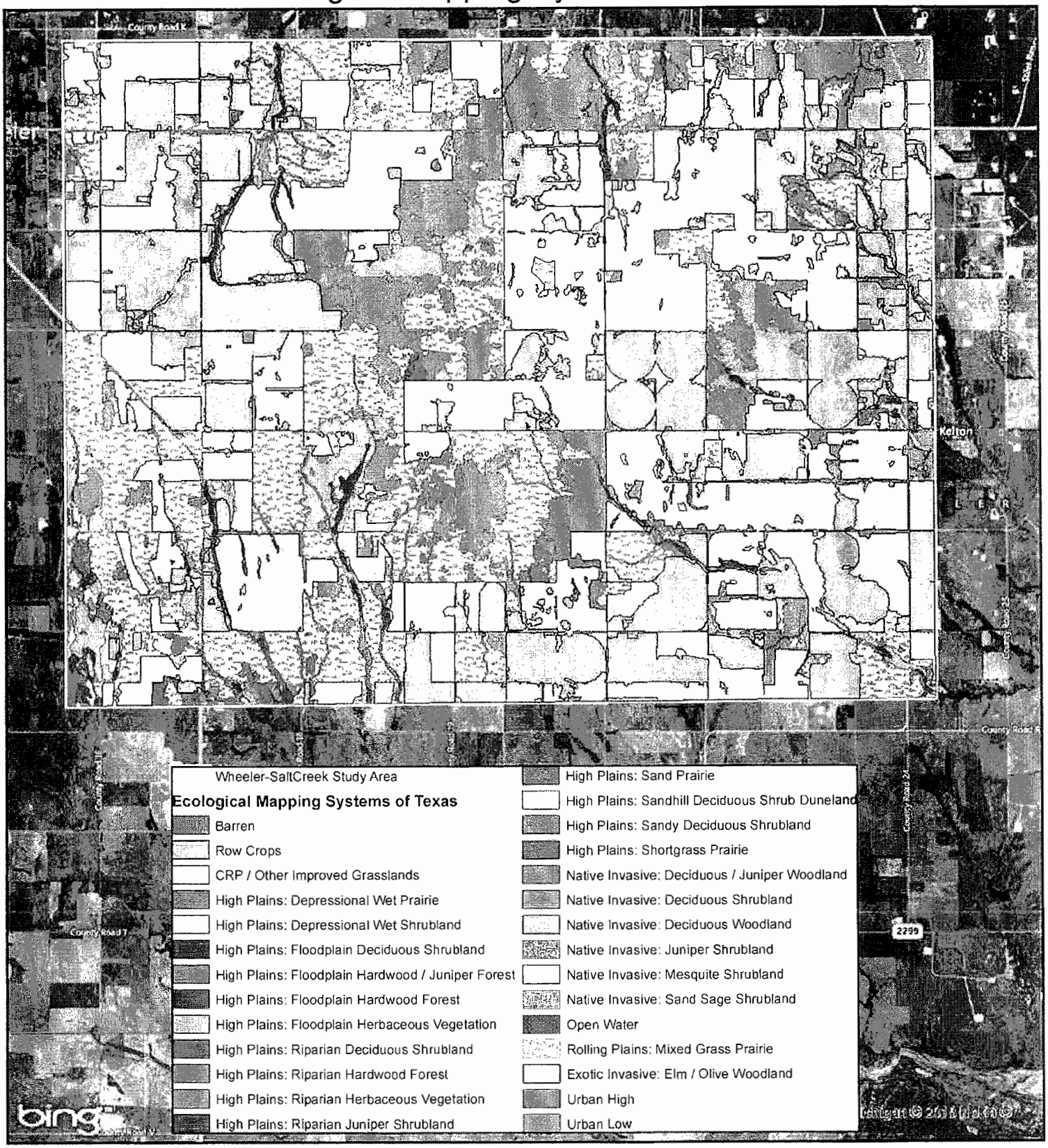
Wheeler - Salt Creek Study Area
Ecological Mapping Systems of Texas



11 November 2013
Map compiled by the TPWD Wildlife Habitat Assessment Program. No claims are made to the accuracy of the data or to the suitability of the data to a particular use.

1 0 5 0. 1 Miles

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TPWD Recommendations for Electrical Transmission/Distribution Line Design and Construction

Construction of the line should be performed to avoid adverse impacts not only to the environment but the local bird populations and to restore or enhance environmental quality to the greatest extent practical. In order to minimize the possible project effects upon wildlife, the following measures are recommended.

TPWD recommends that each electrical company develop an Avian Protection Plan to minimize the risks to avian species that are protected by the Migratory Bird Treaty Act.

Avian Electrocution Risks

Birds can be electrocuted by simultaneously contacting energized and/or grounded structures, conductors, hardware, or equipment. Electrocutions may occur because of a combination of biological and electrical design. Biological factors are those that influence avian use of poles, such as habitat, prey and avian species. The electrical design factor is most crucial to avian electrocutions is the physical separation between energized and/or grounded structures, conductors, hardware, or equipment that can be bridges by birds to complete a circuit. As a general rule, electrocution can occur on structures with the following:

- Phase conductors separated by less than the wrist-to-wrist or head-to-foot (flesh-to-flesh) distance of a bird;
- Distance between grounded hardware (e.g. grounded wires, metal braces) and any energized phase conductor that is less than the wrist-to-wrist or head-to-foot (flesh-to-flesh) distance of a bird (Avian Power Line Interaction Committee 2006).

To protect raptors and eagles, procedures should be followed as outlined in:

> Suggested Practices for Raptor Protection on Power Lines: The State of the Art in 2006. by Avian Power Line Interaction Committee (APLIC). 2006. Distributed by the Avian Power Line Interaction Committee (APLIC).
>
> Mitigating Bird Collisions with Power Lines: the State of the Art in 1994.
> Avian Power Line Interaction Committee (APLIC). 1994. Edison Electric Institute. Washington D.C.

Line alterations to prevent bird electrocutions should not necessarily be implemented after such events occur, as all electrocutions may not be known or documented. Incorporation of preventative measures along portions of the routes that are most attractive to birds (as indicated by frequent sightings) prior to any electrocutions is much preferred.

Preventative measures include: phase covers, bushing cover, arrester covers, cutout covers, jumper wire hoses, and covered conductors. In addition, perch discouragers may be used to deter birds from landing on hazardous (to birds) pole locations where isolate, covers, or other insulating techniques cannot be used (Avian Power Line Interaction Committee 2006).

Use wood or non-conducting cross arms, for distribution lines, to minimize the possibility of electrical contact with perching birds.

When possible, for distribution lines, install electrical equipment on the bottom cross arm to allow top cross arm for perching.

TPWD recommends using nest management strategies which include installing nesting platforms on or near power structures to provide nesting sites for several protected species while minimizing the risks of electrocution, equipment damage, or outages (Avian Power Line Interaction Committee 2006).

Avian Collision Risks

Birds typically establish flight corridors along and within river and creek drainages. Transmission lines that cross or are located very near these drainages should have line markers installed at the crossings or closest points to the drainages to reduce the potential of collisions by birds flying along or near the drainage corridors.

If transmission lines are located in an area with tall trees, the height of the transmission line should not be taller than the trees to reduce collision risks.

Transmission lines should be located to avoid separating feeding and nesting areas. If this cannot be avoided lines should be clearly marked to minimize avian collisions with the lines (Avian Power Line Interaction Committee 1994).

Transmission lines should be buried, when practical, to reduce the risks of avian collisions.

Habitat Impacts

Construction should avoid identified wetland areas. Coordination with appropriate agencies should be accomplished to ensure regulatory compliance. Construction should occur during dry periods.

Construction should attempt to minimize the amount of flora and fauna disturbed. Reclamation of construction sites should emphasize replanting with native grasses and leguminous forbs.

Existing rights-of-way should be used to upgrade facilities, where possible, in order to avoid additional clearing and prevent adverse impacts associated with habitat loss and fragmentation of existing blocks of wooded habitat.

Forest and woody areas provide food and cover for wildlife, these cover types should be preserved. Mature trees, particularly those which produce nuts or acorns, should be retained. Shrubs and trees should be trimmed rather than cleared.

Transmission lines should be designed to cross streams at right angles, at points of narrowest width, and/or at the lowest banks whenever feasible to provide the least disturbance to stream corridor habitat.

Implementation of wildlife management plans along rights-of-way should be considered whenever feasible.

All pole design should be single phase (without arms), where possible, to preserve the aesthetics of the area.

Protection of State-Listed Species
Texas Parks and Wildlife Department Guidelines

Protection of State-Listed Species

State law prohibits any take (incidental or otherwise) of state-listed species. State-listed species may only be handled by persons possessing a **Scientific Collecting Permit** or a **Letter of Authorization** issued to relocate a species.

- **Section 68.002 of the Texas Parks and Wildlife (TPW) Code** states that species of fish or wildlife indigenous to Texas are endangered if listed on the United States List of Endangered Native Fish and Wildlife or the list of fish or wildlife threatened with statewide extinction as filed by the director of Texas Park and Wildlife Department. Species listed as Endangered or Threatened by the Endangered Species Act are protected by both Federal and State Law. The State of Texas also lists and protects additional species considered to be threatened with extinction within Texas.

- **Animals** - Laws and regulations pertaining to state-listed endangered or threatened animal species are contained in **Chapters 67 and 68 of the Texas Parks and Wildlife (TPW) Code** and **Sections 65.171 - 65.176 of Title 31 of the Texas Administrative Code (TAC).** State-listed animals may be found at **31 TAC §65.175 & 176.**

- **Plants** - Laws and regulations pertaining to endangered or threatened plant species are contained in **Chapter 88 of the TPW Code and Sections 69.01 - 69.9 of the TAC**. State-listed plants may be found at **31 TAC §69.8(a) & (b).**

Prohibitions on Take of State Listed Species

Section 68.015 of the TPW Code states that no person may capture, trap, take, or kill, or attempt to capture, trap, take, or kill, endangered fish or wildlife.

Section 65.171 of the Texas Administrative Code states that except as otherwise provided in this subchapter or **Parks and Wildlife Code, Chapters 67 or 68**, no person may take, possess, propagate, transport, export, sell or offer for sale, or ship any species of fish or wildlife listed by the department as endangered or threatened.

"Take" is defined in **Section 1.101(5) of the Texas Parks and Wildlife Code** as:

> *"Take," except as otherwise provided by this code, means collect, hook, hunt, net, shoot, or snare, by any means or device, and includes an attempt to take or to pursue in order to take.*

Penalties

The penalties for take of state-listed species (**TPW Code, Chapter 67 or 68**) are:

- 1ST Offense = Class C Misdemeanor:
  $25-$500 fine

- One or more prior convictions = Class B Misdemeanor
  $200-$2,000 fine and/or up to 180 days in jail.

- Two or more prior convictions = Class A Misdemeanor
  $500-$4,000 fine and/or up to 1 year in jail.

Restitution values apply and vary by species. Specific values and a list of species may be obtained from the TPWD Wildlife Habitat Assessment Program.

Appendix B

Open House Information

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Xcel Energy®
RESPONSIBLE BY NATURE™

October 16, 2013
(Via Mail)

Name
Address
City, State Zip

Dear Landowner,

Xcel Energy, Inc. (Xcel Energy) is proposing to construct a new 115 kilovolt (kV) electric transmission line in Wheeler County, Texas. The proposed Wheeler to Coburn Creek transmission line will be approximately 10-12 miles long, depending upon the route approved by the Public Utility Commission of Texas. The proposed transmission line will connect the existing Wheeler Substation (located approximately 5.2 miles south-southeast of Wheeler) to the proposed Coburn Creek Substation (located along State Highway 152, approximately 7.5 miles east of Wheeler). Please see the enclosed map.

You are receiving this notice regarding the aforementioned proposed project because one or more of the preliminary alternative route segments for the proposed transmission line may require an easement or other property interest across your property, or the centerline of one of the preliminary alternative routes may be located within 300 feet of your property.

Xcel Energy is committed to routing the proposed transmission line in a manner consistent with the values of the local communities, the Texas Utilities Code, the Public Utility Commission of Texas Rules and Policies, and the need to provide reliable electric service to this area of North Texas. In support of the routing process, Xcel is holding a public meeting to solicit input for use in identifying alternative routes for the proposed transmission line and to share information about line routing alternatives. The public meeting will be held Tuesday November 19, 2013, at the Wheeler County Ag & Family Life Center located at 7939 US Highway 83 in Wheeler, Texas from 5:00 to 7:00 pm.

POWER Engineers, Inc. (POWER) a consulting firm retained by Xcel Energy, has identified preliminary alternative transmission line route segments for consideration which are shown as dashed lines on the map and will be available at the meeting to discuss these routes. Maps with greater detail will be exhibited at the meeting. Individuals attending this "come and go" open house meeting will have an opportunity to ask questions and provide information to representatives and technical experts from Xcel Energy and POWER regarding the routing of the proposed transmission line. These preliminary alternative routes are subject to modification based on further study and information received at the public meeting. If you have any questions concerning this meeting, please contact Lance Kenedy at (806) 378-2435. If you are unable to attend the open house, we encourage you to visit the project website, http://www.powerfortheplains.com/projects, to find more information.

Sincerely,

Lance Kenedy
Xcel Energy
Enclosure

OVERSIZED MAP

Segment _____

Xcel Energy®
RESPONSIBLE BY NATURE™

November 19, 2013

Welcome and thank you for taking the time to attend this public open-house meeting for the proposed Wheeler to Coburn Creek 115kV transmission line project. The purpose of this open-house is to present information, receive your ideas and concerns, and answer your questions about the project. Before Xcel Energy, Inc. (Xcel Energy) and their routing consultant (POWER Engineers, Inc.) make any final decisions concerning which potential routes will be filed for consideration by the Public Utility Commission of Texas, and which transmission structure to select, we want to hear your opinion.

We welcome your comments on the Wheeler to Coburn Creek 115kV transmission line project. Please take a few minutes to answer the following questions. To ensure that your comments will be incorporated into the analysis of alternatives, please return this form at the open-house or not later than December 20, 2013 to the following address: Xcel Energy P.O. Box 1261 Amarillo, Texas 79105. You may also submit your comments by email to Lance.Kenedy@xcelenergy.com. To find more information, we encourage you to visit the project website, http://www.powerfortheplains.com/projects.

1. Did you attend the public open-house meeting?

   Yes ___ No ____

2. In your opinion, has the purpose for the project been adequately explained?

   Yes ___ No ____

3. How could we have improved on this effort? Was there something that did you not understand?

   _____

   _____

   _____

   _____

   _____

4. Do you believe the public open-house format and the information that was provided were helpful for your understanding of the project?

   Open-house Format Yes ____ No ____
   Information Provided Yes ____ No ____

5. As explained at one of the stations of the open-house, the routing of a transmission line involves many considerations. Please circle the number corresponding to the level of importance that each specific factor in the routing of the transmission line is to you.

	FACTORS	**RATINGS**				
		Not Important	----------	Somewhat Important	----------	Very Important
a)	Maximize distance from residences	1	2	3	4	5
b)	Maximize distance from businesses	1	2	3	4	5
c)	Maximize distance from public facilities (e.g., parks & schools)	1	2	3	4	5
d)	Maximize length along existing transmission lines	1	2	3	4	5
e)	Maximize length along highways or other roads	1	2	3	4	5
f)	Maximize length along property boundary lines	1	2	3	4	5
g)	Maintain reliable electric service	1	2	3	4	5
h)	Minimize length through wetlands/floodplains	1	2	3	4	5
i)	Minimize crossing and paralleling of streams/ rivers	1	2	3	4	5
k)	Minimize length across cropland	1	2	3	4	5
l)	Minimize loss of trees	1	2	3	4	5
m)	Minimize visibility of the line	1	2	3	4	5
n)	Minimize total length of line (reduces cost of line)	1	2	3	4	5
o)	Minimize length through grassland or pasture	1	2	3	4	5
p)	Maximize length through undeveloped land	1	2	3	4	5
q)	Minimize impacts to archaeological and historic sites	1	2	3	4	5

6. If you wish to comment on the factors listed in the previous question, or add any factors that you think should be considered, please use the space below and the back of the questionnaire, if necessary.

_____

_____

_____

_____

_____

7. If there are any other features in the study area that you feel are important, please describe the locations and/or mark them on the study area maps attached.

_____

_____

_____

8. If you have a concern with a particular transmission line segment shown on the displays and the attached maps, please indicate the segment (by letter) and describe your concern.

Segment	Concern
_____	_____
	_____
	_____
_____	_____
	_____
	_____
_____	_____
	_____
	_____
_____	_____
	_____
	_____
_____	_____
	_____
	_____

9. Which of the following applies to your situation?

_____ Potential segment is near my home
_____ Potential segment is near my business
_____ Potential segment crosses my land
_____ Other (please specify)

_____

_____

_____

_____

_____

Please provide any additional comments below:

We would appreciate having your contact information below, however, it is optional.

Name:_____

Address:_____

City:_____State:_____Zip Code:_____

Phone:_____

E-mail Address:_____

THANK YOU FOR YOUR COMMENTS!

Xcel Energy®
RESPONSIBLE BY NATURE™

Frequently Asked Questions

Q: Can you tell me more about the Wheeler-Coburn Creek 115kV Transmission Line Project?

A: Southwestern Public Service Company (SPS), a subsidiary of Xcel Energy Inc., is proposing to construct a new 115 kilovolt (kV) electric transmission line in Wheeler County, Texas. The project consists of approximately 10-12 miles (depending on the route selected by the Public Utility Commission of Texas (PUCT)) of transmission line circuit. The proposed transmission line will connect the existing Wheeler Substation located approximately 5.2 miles south-southeast of Wheeler, to the proposed Coburn Creek Substation located along State Highway 152, approximately 7.5 miles east of Wheeler.

Q: When will the lines be built?

Transmission line construction is expected to occur in the late summer of 2015. The Certificate of Convenience and Necessity (CCN) application for the transmission line will be filed with the PUCT in February 2014; and a decision is expected in early 2015. Schedules can change, so please continue to check the website at www.powerfortheplains.com and read your local newspaper for continued information.

Q: Who will benefit from the transmission improvements?

All electricity customers in the project area and the surrounding region in Texas will benefit from a more robust and reliable electric transmission system. The Wheeler to Coburn Creek Project will address potentially serious local reliability and load growth issues in the area. Reliable and affordable electricity is the backbone to a robust economy and vibrant community.

Q: How will landowners be affected?

A: SPS representatives will contact all potentially affected landowners by letter as part of the Public Open House process. Potentially affected landowners whose property is within 300 feet of one of the proposed alternative route segments will be advised of the possibility that the transmission line route may cross or be near their property. This will give them an opportunity to participate in the review and routing process. Once the final route has been selected by the PUCT, landowners affected will again be contacted. Surveys for protected environmental resources as well as engineering elements will be completed as part of the routing process, and SPS representatives will ask permission from affected landowners prior to entry on their land.

Q: How can I get involved?

Open Houses are designed to communicate with the public and solicit important input for routing decisions. All comments, information and suggestions are valued and taken into consideration during development of the proposed project. Additionally, feedback can be provided to SPS representatives at (806) 378-2435, or the website at www.powerfortheplains.com. In addition, landowners are free to communicate directly to the PUCT.

Q: How will SPS choose a route for the transmission lines?
A: Alternative routes are determined by routing studies conducted by SPS and its contractors. Engineers and scientists identify potential alternative route segments using aerial photography, field review, and helicopter flyover. Residents, public officials, government agencies and other concerned parties are invited to attend Open House Meetings. These meetings are to inform the public of the proposed alternative route segments and to gather important input for routing decisions. Information regarding the proposed project is also made available for viewing in public locations and on the project website at www.powerfortheplains.com.

SPS relies upon information from the residents, landowners, and all concerned parties to make informed decisions when evaluating and ultimately selecting the alternative routes to be submitted to the PUCT as part of the application for a CCN. Ultimately the PUCT will select the final route of the transmission line and issue a final order to that effect.

Q: What do transmission line structures look like?
A: SPS plans to use monopole steel structures for the Wheeler to Coburn Creek 115kV Transmission Line Project. Monopole structures are single steel poles. They can be embedded in the ground without a foundation and vary in height from 75 to 150 feet; spans between structures range from 750 to 1,000 feet. All corner and angle structures will be single pole steel as well, but will have concrete foundations to support them.

Q: What impact will the proposed projects have on property values?
Property values are impacted by various factors. The proposed project is just one of many market factors which could be perceived to impact a property's value. SPS is not able to speculate as to the exact nature of any impact on a property; however, fair compensation will be paid for the acquisition of the easements in accordance with eminent domain laws of the state.

Q: How much will SPS pay for an easement?
A: The SPS utilities will provide fair compensation in the form of a one-time easement payment to property owners who host power lines. Property owners retain ownership of the land and may continue to use the land around transmission structures. For more information on transmission line easements, please visit the project website at www.powerfortheplains.com.

Q: Are transmission lines safe?
A: Every effort is made to ensure safety in construction, operation and maintenance of transmission lines. Lines and line infrastructure are designed to withstand extreme weather conditions. Protective devices at line terminals stop the electricity flow under any abnormal operating circumstances. Utility practices meet or exceed standards set by national electric safety codes as well as those adopted by local governments.

Q: Why can't the transmission lines be placed underground?
A: SPS is proposing overhead lines because of reliability and cost. While it is common for lower voltage transmission lines to be buried (lines less than 69kV), it is rare to build high voltage transmission lines underground. Underground high-voltage transmission lines generally cost up to 10 times more than overhead high-voltage lines. The technology to build lines underground for long distances is also extremely difficult to manage. With overhead lines, air cools the lines and keeps them at a safe operating temperature. Underground lines require cooling mechanisms, which increases cost and decreases reliability. Locating and repairing underground line failures also takes longer, leading to longer outages. Installing underground

high voltage transmission lines requires lengthy, disruptive construction techniques. Design concerns such as capacity and heat dissipation are frequent limitations. Underground systems are justified primarily in heavily populated downtown urban centers, where right-of-way is severely limited for overhead lines.

Q: How will my electric rates be affected by the construction of these transmission lines?
A: Retail electric rates are regulated by the PUCT. Integrated electric utility companies like SPS must file a petition with the PUCT, called a rate case, justifying the cost of the transmission component of their retail electric rate.

Q: What is EMF?
A: Electric and magnetic fields (EMF) are created by anything that conducts electricity, including transmission lines, household appliances and business equipment. These fields are strongest closest to their source, so the farther away you are from the source, the less EMF reaches your body. EMF exposure from transmission lines, which are high in the air and outside the negotiated easement, is minimal. Decades of scientific and medical research, reviewed by science organizations and government agencies, have found no cause/effect evidence of threats to human health from EMF. For more information, as well as an extensive list of references, review a booklet prepared by the National Institute of Environmental Health Services, National Institute of Health, on their website at www.niehs.nih.gov/health/topics/agents/emf/.

Appendix C

Oversize Maps

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FIGURE 3-2

Primary Alternative Segments with Environmental and Land Use Constraints

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OVERSIZED MAP Figure 3-2

FIGURE 5-1

Habitable Structures and Other Land Use Features in the Vicinity of the Primary Alternative Routes

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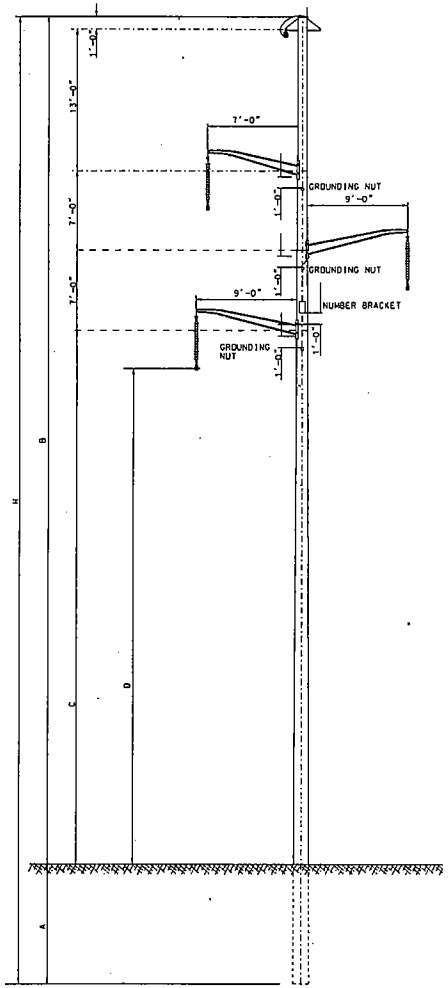
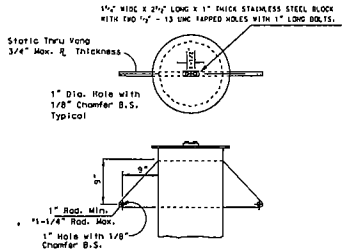
OVERSIZED MAP Figure 5-1





POLE TOP DETAIL

DIMENSIONS				
H	A	B	C	D
75'	11'6"	63'6"	35'6"	32'3"
80'	12'0"	68'0"	40'0"	36'9"
85'	12'6"	72'6"	44'6"	41'3"
90'	13'0"	77'0"	49'0"	45'9"
95'	13'6"	81'6"	53'6"	50'3"
100'	14'0"	86'0"	58'0"	54'9"
105'	14'6"	90'6"	62'6"	59'3"
110'	15'0"	95'0"	67'0"	63'9"
115'	15'6"	99'6"	71'6"	68'3"
120'	16'0"	104'0"	76'0"	72'9"
125'	16'6"	108'6"	80'6"	77'3"
130'	17'0"	113'0"	85'0"	81'9"

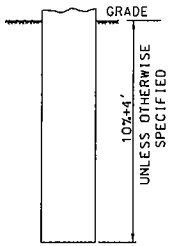
SEE DIRECT BURIAL DETAIL

DESIGN NOTES:

1. FOR TOWER AND FOOTING LOAD DATA SEE FORM IN PROJECT FILE.
2. STRUCTURE DESIGN SHOWN IS FOR CONFIGURATION ONLY. ENGINEERING STRENGTH CALCULATIONS AND STRUCTURE DESIGN DETAILS MUST BE PERFORMED FOR EACH PROJECT.
3. INSTALL STEP LUGS FROM 85FT. ABOVE BASE PLATE TO TOP OF POLE.

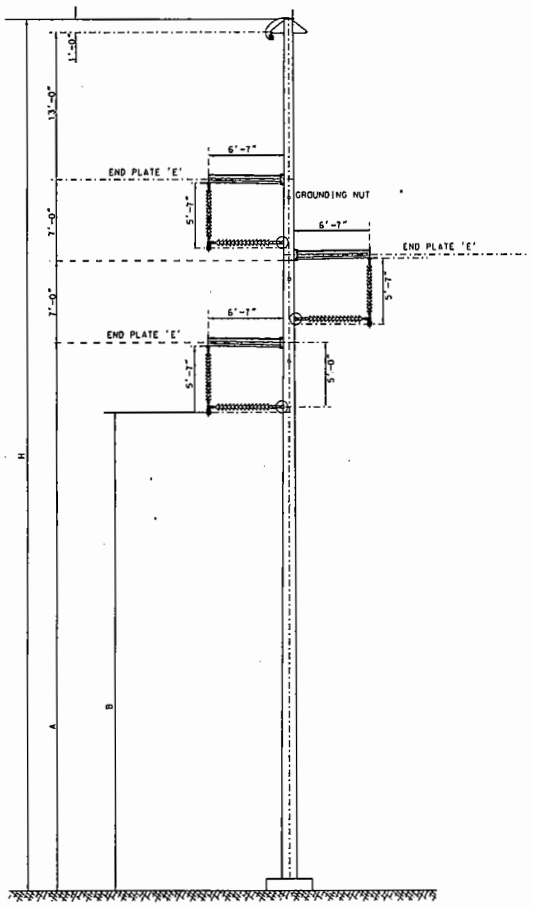
REFERENCE DRAWINGS:

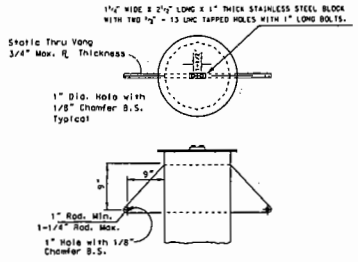
1. SEE SHEET T-0-400 FOR GENERAL DETAILS
2. SEE SHEET T-0-400A FOR ARM END PLATE AND DEADEND EAR DETAILS



DIRECT BURIAL DETAIL

SPS OPERATING AREA TRANSMISSION ENGINEERING AMARILLO, TX	TRANSMISSIONS STANDARD STRUCTURE DRAWING - T0 STEEL - SINGLE POLE - 2° TANGENT DAVIT ARMS - DIRECT BURY	115 kV
APPROVING ENGINEER / DATE	DESIGNED / DATE	DRAWN CLH 2013-09-09 / CHECKED / DATE / SCALE
Xcel Energy®	SD-T0-551	SHEET NUMBER 1 of 1 / REV.





POLE TOP DETAIL

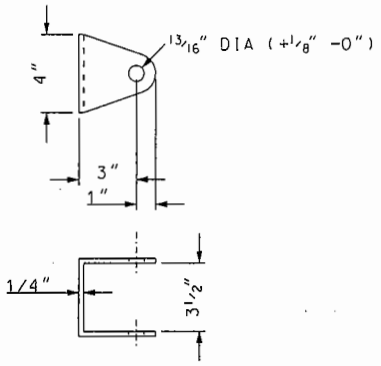
DIMENSIONS		
H	A	B
75'-0"	47'-0"	41'-5"
80'-0"	52'-0"	46'-5"
85'-0"	57'-0"	51'-5"
90'-0"	62'-0"	56'-5"
95'-0"	67'-0"	61'-5"
100'-0"	72'-0"	66'-5"
105'-0"	77'-0"	71'-5"
110'-0"	82'-0"	76'-5"
115'-0"	87'-0"	81'-5"
120'-0"	92'-0"	86'-5"
125'-0"	97'-0"	91'-5"
130'-0"	102'-0"	96'-5"

DESIGN NOTES:

1. FOR TOWER AND FOOTING LOAD DATA SEE FORM IN PROJECT FILE.
2. STRUCTURE DESIGN SHOWN IS FOR CONFIGURATION ONLY. ENGINEERING STRENGTH CALCULATIONS AND STRUCTURE DESIGN DETAILS MUST BE PERFORMED FOR EACH PROJECT.
3. INSTALL STEP LUGS FROM 85FT. ABOVE BASE PLATE TO TOP OF POLE.

REFERENCE DRAWINGS:

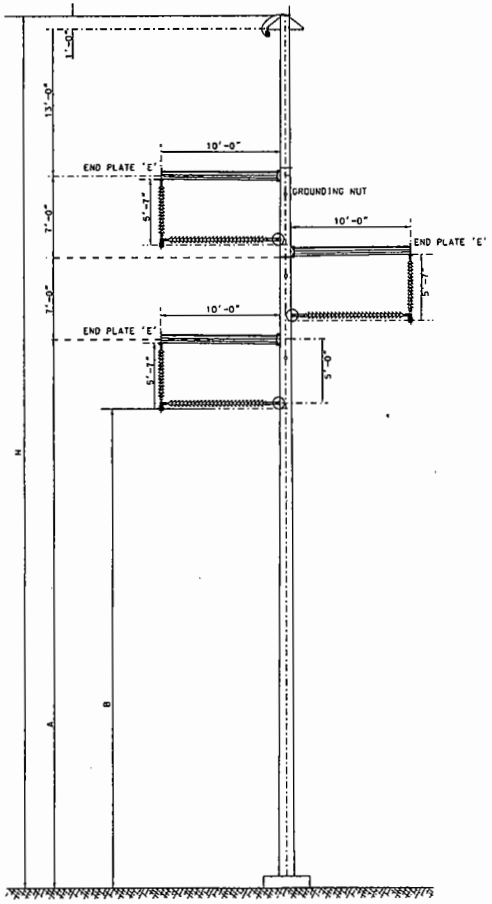
1. SEE SHEET T-0-400 FOR GENERAL DETAILS
2. SEE SHEET T-0-400A FOR ARM END PLATE AND DEADEND EAR DETAILS

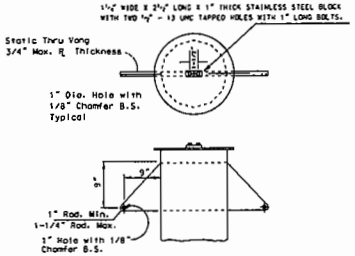


STRUT DETAIL

REV. 3: CORRECTED THE ATTACHMENT POINT OF THE ARMS - 10/04/2013 CLH

SPS OPERATING AREA TRANSMISSION ENGINEERING AMARILLO, TX	TRANSMISSION STANDARD STRUCTURE DRAWING - T0 STEEL SINGLE POLE 3° - 10°						115 kV
APPROVING ENGINEER	DATE	DESIGNED	DATE	DRAWN: CLH	DATE: 2013-09-09	CHECKED	DATE
Xcel Energy®	SD-T0-550					SHEET NUMBER: 1 of 1	REV. 3





POLE TOP DETAIL

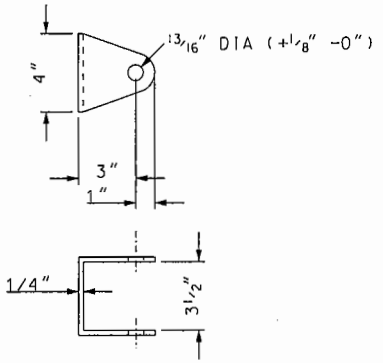
DIMENSIONS		
H	A	B
75'-0"	47'-0"	41'-5"
80'-0"	52'-0"	46'-5"
85'-0"	57'-0"	51'-5"
90'-0"	62'-0"	56'-5"
95'-0"	67'-0"	61'-5"
100'-0"	72'-0"	66'-5"
105'-0"	77'-0"	71'-5"
110'-0"	82'-0"	76'-5"
115'-0"	87'-0"	81'-5"
120'-0"	92'-0"	86'-5"
125'-0"	97'-0"	91'-5"
130'-0"	102'-0"	96'-5"

DESIGN NOTES:

1. FOR TOWER AND FOOTING LOAD DATA SEE FORM IN PROJECT FILE.
2. STRUCTURE DESIGN SHOWN IS FOR CONFIGURATION ONLY. ENGINEERING STRENGTH CALCULATIONS AND STRUCTURE DESIGN DETAILS MUST BE PERFORMED FOR EACH PROJECT.
3. INSTALL STEP LUGS FROM 85FT. ABOVE BASE PLATE TO TOP OF POLE.

REFERENCE DRAWINGS:

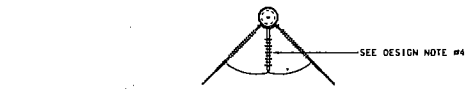
1. SEE SHEET T-0-400 FOR GENERAL DETAILS
2. SEE SHEET T-0-400A FOR ARM END PLATE AND DEADEND EAR DETAILS



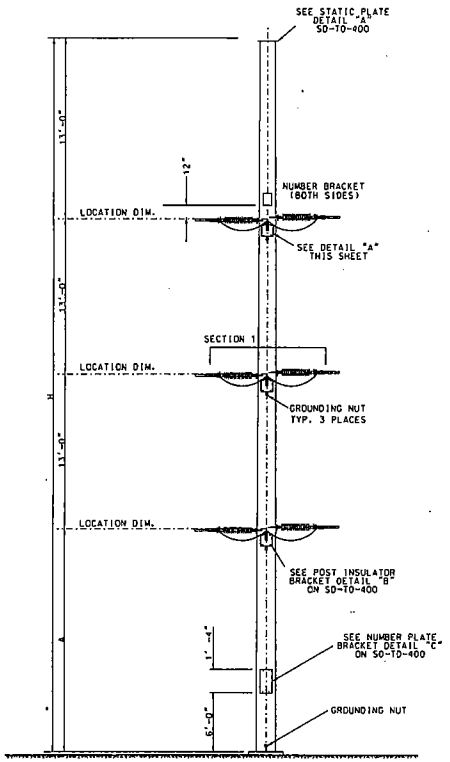
STRUT DETAIL

REV. 3: WAS CHANGED TO A FOUNDATION FROM A DIRECT BURY - 02/12/2014 CLH

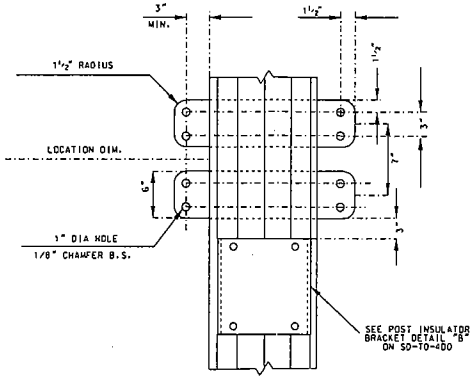
SPS OPERATING AREA TRANSMISSION ENGINEERING AMARILLO, TX	TRANSMISSION STANDARD STRUCTURE DRAWING - T0 STEEL SINGLE POLE-10° - 30° W/ 10' ARMS		115 kV
APPROVED ENGINEER	DESIGNED	DRAWN CLH 2013-09-09	CHECKED
Xcel Energy®	SD-T0-552	SHEET NUMBER 1 of 1	REV. 3



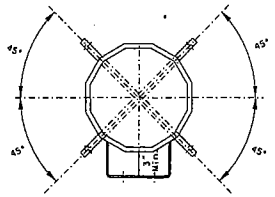
TOP VIEW



ELEVATION



DETAIL "A"



1" Dia. Holes

SECTION 1

DESIGN NOTES:

1. FOR TOWER AND FOOTING LOAD DATA SEE FORM IN PROJECT FILE.
2. STRUCTURE DESIGN SHOWN IS FOR CONFIGURATION ONLY. ENGINEERING STRENGTH CALCULATIONS AND STRUCTURE DESIGN DETAILS MUST BE PERFORMED FOR EACH PROJECT.
3. SEE SD-T0-400 FOR STEP LUB DETAILS.
4. POST INSULATORS MAY NOT BE REQUIRED AT ALL LOCATIONS. SEE SPECIFIC P & P SHEETS.

NOTES:

1. SEE SHEET T-0-400 FOR GENERAL DETAILS
2. SEE SHEET T-0-400C FOR ANCHOR BOLT CAGE DETAILS.

DIMENSIONS	
H	A
80'	41'
85'	46'
90'	51'
95'	56'
100'	61'
105'	66'
110'	71'
115'	76'
120'	81'
125'	86'
130'	91'
135'	96'
140'	101'

GC -REV 1 -DIMENTIONS, DETAILS FOR INSULATOR BRACKET AND NUMBER PLATE

SPS OPERATING AREA TRANSMISSION ENGINEERING AMARILLO, TX	TRANSMISSION STANDARD STRUCTURE DRAWING - TD STEEL - SINGLE CIRCUIT 90° VERTICAL CORNER STRUCTURE	115;69 kV
APPROVED ENGINEER / DATE	RELEASED / DATE	DRAWN / DATE / CHECKED / DATE / SCALE
Xcel Energy®	SD-T0-506	SHEET NUMBER 1 of 1 / REV. 1

Estimated Costs:
Wheeler to Coburn Creek CCN
115 kV Transmission Line

	Alternative Route 1 Segments A-B-C-D-N-U-CC-FF-GG-HH-II Circuit Miles 10.9		Alternative Route 2 Segments A-B-C-G-M-T-BB-CC-DD-HH-II Circuit Miles 11		Alternative Route 3 Segments A-B-F-K-O-P-Q-V-II Circuit Miles 11.2		Alternative Route 4 Segments A-B-F-H-L-S-Y-Z-AA-BB-CC-FF-GG-HH-II Circuit Miles 10.9		Alternative Route 5 Segments A-E-H-I-J-N-U-CC-FF-GG-HH-II Circuit Miles 10.9	
	Transmission Facilities	Substation Facilities	Transmission Facilities	Substation Facilities	Transmission Facilities	Substation Facilities	Transmission Facilities	Substation Facilities	Transmission Facilities	Substation Facilities
Right-of-way (Easements and Fees)	$602,716	$67,032	$608,245	$67,032	$619,304	$67,032	$602,716	$67,032	$602,716	$67,032
Material and Supplies	$1,760,809	$3,407,121	$2,166,705	$3,407,121	$1,974,102	$3,407,121	$1,968,985	$3,407,121	$1,605,718	$3,407,121
Labor and Transportation (Utility)	$166,281	$809,775	$171,523	$809,775	$172,565	$809,775	$171,270	$809,775	$165,916	$809,775
Labor and Transportation (Contract)	$1,496,527	$1,505,897	$1,543,708	$1,505,897	$1,553,094	$1,505,897	$1,541,430	$1,505,897	$1,493,247	$1,505,897
Stores	$401,642	$236,234	$494,228	$236,234	$450,295	$236,234	$449,128	$236,234	$366,266	$236,234
Engineering and Administration (Utility)	$926,649	$153,531	$945,782	$153,531	$950,006	$153,531	$943,229	$153,531	$925,438	$153,531
Engineering and Administration (Contract)	$32,700	$489,403	$33,000	$489,403	$33,600	$489,403	$32,700	$489,403	$32,700	$489,403
Other*	$538,036		$593,205		$696,661		$636,310		$959,681	
Estimated Total Cost	**$5,925,359**	**$6,668,993**	**$6,556,396**	**$6,668,993**	**$6,449,628**	**$6,668,993**	**$6,345,767**	**$6,668,993**	**$6,151,683**	**$6,668,993**
TOTAL COST	**$12,594,352**		**$13,225,389**		**$13,118,621**		**$13,014,760**		**$12,820,676**	

	Alternative Route 6 Segments A-E-K-R-X-Z-EE-GG-HH-II Circuit Miles 10.8		Alternative Route 7 Segments A-E-K-R-W-Y-Z-EE-JJ Circuit Miles 11.8		Alternative Route 8 Segments A-E-H-L-P-Q-U-CC-FF-GG-HH-II Circuit Miles 10.9		Alternative Route 9 Segments A-E-H-L-S-Y-Z-AA-BB-CC-FF-GG-HH-II Circuit Miles 10.9	
	Transmission Facilities	Substation Facilities	Transmission Facilities	Substation Facilities	Transmission Facilities	Substation Facilities	Alternative Route H	Substation Facilities
Right-of-way (Easements and Fees)	$597,186	$67,032	$652,481	$67,032	$602,716	$67,032	$602,716	$67,032
Material and Supplies	$1,905,238	$3,407,121	$2,286,146	$3,407,121	$1,760,111	$3,407,121	$1,818,574	$3,407,121
Labor and Transportation (Utility)	$169,928	$809,775	$186,626	$809,775	$168,396	$809,775	$168,819	$809,775
Labor and Transportation (Contract)	$1,529,354	$1,505,897	$1,679,634	$1,505,897	$1,515,561	$1,505,897	$1,519,376	$1,505,897
Stores	$434,587	$236,234	$521,473	$236,234	$401,484	$236,234	$414,819	$236,234
Engineering and Administration (Utility)	$938,391	$153,531	$999,004	$153,531	$933,677	$153,531	$935,086	$153,531
Engineering and Administration (Contract)	$32,400	$489,403	$35,400	$489,403	$32,700	$489,403	$32,700	$489,403
Other*	$679,226		$631,586		$772,493		$513,366	
Estimated Total Cost	**$6,286,311**	**$6,668,993**	**$6,339,869**	**$6,668,993**	**$6,187,138**	**$6,668,993**	**$6,005,456**	**$6,668,993**
TOTAL COST	**$12,955,304**		**$13,008,862**		**$12,856,131**		**$12,674,449**	

* - Consists of the costs to mitigate potential impacts to Lesser Prarie Chicken habitat.

Request for Change in Local Delivery Facilities

Pursuant to the Delivery Point Addition Process in Attachment AQ of the Tariff notice is hereby provided on **June 28, 2012** to Southwestern Public Service / Xcel Energy (the Host Transmission Owner) and Transmission Provider that Transmission Customer requests certain changes in delivery point(s) under the agreement.

Responses marked with an asterisk (*) are required. Supply all details that are known or projected.

Requested Modification

1) Description of delivery point modification*
   a) Type of change requested (new delivery point, upgrade of an existing delivery point, retirement or abandonment of an existing delivery point, etc.) * **new delivery point**
   b) Proposed in service date of the modification* **December 2014**
   c) Reason for the requested change (i.e. normal or unexpected load growth or load reduction, reliability needs or other reason) * **unexpected out-of-cycle load growth**
   d) Related transmission service agreement* **74622932**
   e) Location of the delivery point change and identification of the facilities involved*
      i) Geographic location of the new delivery point or the delivery point to be modified* **new substation east of Wheeler, TX (Pampa Division); refer to Attachment 4 – Proposed Substation Location**
      ii) The transmission facilities of the Host Transmission Owner involved in the change* **appropriate SPP buss to be determined**
      iii) Voltage of the facilities involved* **new 115 KV transmission line and 115/13.2 KV substation**
      iv) Desired meter location* **na**
      v) Expected impact on other delivery points, if any*
         (1) Load transfer from another delivery point and, if so, estimated amount* **load transfer from Howard Substation (SPP buss number 523797)**
         (2) Anticipated modifications to other delivery points due to this change, if any* **none**
      vi) Facilities of others that may be involved* **none**
2) Facilities to be constructed
   a) Facilities to be constructed or provided by the Host Transmission Owner **new 115 KV transmission line from existing 115 KV transmission system to new substation**
   b) Facilities to be constructed or provided by the Transmission Customer **new 115/13.2 KV, 14 MVA substation east of Wheeler, TX**
3) Technical Aspects of a new delivery point
   a) Location
      i) Located near structure number
      ii) 911 address
      iii) State, County and ¼ of ¼ Section number

iv) GPS Coordinates

b) Technical aspects

i) Anticipated initial load* **Various new loads: 2.0 MVA in 2011, 2.2 MVA in 2012, 1.5 MVA in 2013, 0.5 MVA in 2014 ; refer to Attachment 3 – Ten Year Load Forecast**

ii) Number of wires (3 or 4 wire connection)

iii) Service voltage

iv) Meter

(1) Type

(2) Voltage

(3) Supplied by

(4) Owned by

(5) PTs and CTs required

(6) Communications configuration

(7) Location of meter

v) Transformer size and voltages **115/13.2 KV, 14 MVA transformer at New Substation**

vi) Transmission line conductor size and impedance rating **new transmission line, conductor and impedance to be determined**

vii) Type and location of protective devices

4) Other pertinent information: **largest motor size is 500 HP on VFD**

Attachments:

1) One-line diagram showing existing and proposed facilities pertaining to the request.* **area of concern is nearby Howard and Wheeler Co Substations on Transmission Switching Map – Texas North – Wheeler Co Area (Sheet 21 of TN)**

2) IDV file(s) for anticipated starting load.

3) Ten year load forecast for the delivery point being added or modified and any associated changes in the load forecast for other delivery points.* **see Attachment below**

Requestor Contact:

Name: Kevin Pera

Title: Transmission Analyst

Company: Xcel Energy / Southwestern Public Service Company

Mailing Address: 1800 Larimer, Ste 1000; Denver, CO 80202

Email Address: Kevin.m.Pera@xcelenergy.com

Voice Phone No.: 303/571-7759

SPS Internal Requestor:

W J Wojciechowski

Attachment 3

Ten Year Load Forecast

Year	Howard Substation Load (MVA)	New Substation Load (MVA)
2011 (actual)	9.0	NA
2012	10.9	NA
2013	13.1	NA
2014	14.7	NA
2015	8.3	8.0
2016	8.5	8.2
2017	8.7	8.3
2018	8.8	8.5
2019	9.0	8.7
2020	9.2	8.8
2021	9.4	9.0

Southwestern Public Service Company
Howard Load System Impact Study Report
DPA-2012-June-201

Study No. #120807

Southwestern Public Service Company (SPS),
An Xcel Energy Company

October 8, 2012

Executive Summary

The SPS Retail Group has requested a system impact study for a new delivery point near Kelton, Texas. SPS has further requested to transfer a total of 9.0 MW to the new near Kelton Texas 115 kV delivery point from the Howard 115 kV bus in January 2015. This sequence is noted in Table 1.

The Transmission Asset Management group of Southwestern Public Service Company (SPS) evaluated the addition of these new loads as requested by the customer. SPS has determined that three additional projects are required in order to provide service in the system intact and single contingency condition. As per the previous Howard system impact study, # 11130, conditional service is required. Several projects as outlined in that study need to be completed in order to serve the 9.0 MW load during any contingency. In addition, construction of a new 115 kV transmission line between Wheeler and near Kelton, Texas is required. The new 115 kV transmission line, which is approximately 13.6 miles in length, will need to be conductored with at least 397.5 ACSR by December 2014.

These projects are required to be completed in order to avoid creating single contingency violations in the area. Until this project, along with the other previously proposed projects in study # 11130 and # 20327, are completed, load shedding is required for several possible contingencies until such time as when all the projects are completed including the recommended transmission line and switchable 2 stage 7.2 MVAR capacitor bank.

A contingency method of restricted service may be considered for the proposed load additions. That method would allow a **restricted** amount of SPS load to be served at the 115 kV delivery points. However, during a contingency the SPS load must be interruptible until such time as when the system improvements are completed.

Finally, the new load must be added at a 98% power factor as per the Xcel Energy *"Interconnection Guidelines for Transmission Interconnected Customer Loads"*. Any large motors at this location are required to utilize some type of soft-starting device, to minimize voltage fluctuations during startup at the point of interconnection, and will be subject to the voltage fluctuations criterion described in the aforementioned guidelines. These *"Interconnection Guidelines for Transmission Interconnected Customer Loads"* can be found on the Xcel Energy website at *http://www.xcelenergy.com/staticfiles/xe/Regulatory/Transmission/XELTransmissionInterconnectedCustLoads[1].pdf*. SPS may modify the results based on requested load projects, generation interconnections, or guidance from the Southwest Power Pool (SPP).

Table of Contents

1. Introduction

Southwestern Public Service Company has requested a system impact study for an increase in the load capacity of the electric service at the Howard Interchange until 2014. Then the proposed load increases will be transferred to a new delivery point substation near Kelton Texas. The load data in Table 1 was obtained from SPS as per:

Table 1, Stated Load Schedule at delivery points

Year	Howard Substation Load (MVA)	New Substation Load (MVA)
2011	9	
2012	10.9	
2013	13.1	
2014	14.7	
2015	8.3	8
2016	8.5	8.2
2017	8.7	8.3
2018	8.8	8.5
2019	9	8.7
2020	9.2	8.8
2021	9.4	.9

The new load forecast is in addition to the previously forecasted loads for the 2011 MDWG models and the following previously completed studies:

1. Golden Spread Electric Co-operative Howard Load Study #**01104** dated 2/24/2011
2. Golden Spread Electric Co-operative Howard Load Study #**11130** dated 3/30/2012 for: **DPA-2011-September-095; DPA-2011-October-100; DPA-2011-November-105**
3. SPS Buffalo Delivery Point SIS Load Interconnection Study Report #110404 dated 4/18/2011

The load addition for the following study was not added into the models:

Golden Spread Electric Co-operative Howard Load Study #**20327** dated 4/05/2012 **DPA-2012-February-133**

The Transmission Asset Management group of Southwestern Public Service Company (SPS) evaluated the addition of new load as requested by the customer.

2. Study Assumptions[1] and Methodology

Initially this study assumed the load characteristics, generation patterns and transmission topologies present in the 2013 Summer Peak, 2013 Summer Peak, 2018 Summer Peak, and the 2023 Summer Peak powerflow models. These are the powerflow models used for this study and do represent a subset of the FINAL 2012 Southwest Power Pool MDWG[2] MOD[3] Build 2 Model Series. No new speculative load, or load without signed agreements, was added to the powerflow models or any additional load not already present in these models with the exception of the loads in Table 1. The previous GSEC load addition SPS Load Studies, Golden Spread Electric Cooperative GB Howard Load System Impact Study Report #01104 and SPS Buffalo Delivery Point SIS Load Interconnection Study Report # 110404, results are referenced as appropriate.

This study was performed using the Power Technologies, Inc. (PTI) Power System Simulator for Engineering (PSS™E) program and contains a steady-state analysis using AC Contingency Calculation (ACCC) with a Fixed Slope Decoupled Newton-Raphson (FDNS) solution. The study was conducted to ensure that current SPS/SPP criteria and NERC Planning Standards[4] are fulfilled. As an example, for system intact conditions, bus voltages must be maintained between 0.95 - 1.05 per-unit of their nominal value; thermal system-intact conditions must not exceed their designated normal rating or A-rating. During single element contingencies, the 69 kV and 115 kV voltages are allowed to deviate between 0.90 - 1.10 per-unit of their nominal values and the 230 kV and 345 kV bus voltages must be maintained between 0.90 - 1.05 per-unit of their nominal values. An exception to the criteria is the voltage at Tuco Interchange, which has a voltage stability limit of 0.925 per-unit of nominal during single element contingencies. Additionally, the thermal loading on transmission system equipment cannot exceed 100% of the emergency B-rating.

[1] NERC Reliability Standard FAC-002, R1.5 Requirement
[2] Model Development Working Group
[3] Models On Demand
[4] NERC Reliability Standard TPL-001, R1 and NERC Reliability Standard TPL-002, R1 Requirements

3. Study and Results

The initial powerflow results of this study were analyzed for impacts triggered on the SPS transmission system within the SPS area. The monitored results included the following zones:

1502 - SPS Oklahoma Tri County Hitchland

1503 - SPS Amarillo Metro

The ties from all of SPS were monitored, as well as the ties from the previously listed zones. These zones are the key areas of interest since the load is situated in close proximity to these zones and have the potential to be the most impacted. The study was conducted considering that this load was gradually added, as indicated as shown in Table 1, and studied in the respective seasonal powerflow model.

3.1 Facility Impact - System Intact (SI) Analysis

The study found that the GB-Howard 115 kV load may increase to 51 MVA with a contingency restricted level until such time as the Bowers to Howard and the Bowers to Grapevine transmission lines are completed. However, the following projects are required to eliminate voltage violations for the N-0 states:

2013S case

1. The 4.2 MVAR capacitor bank at or nearby NP-MIAMI is required before 2013S.
2. CLOSE normally open tie S 2746 at Kite Substation; OPEN the S 2845 switch east of Lyons Sub.
3. CLOSE normally open S 2827 east of Kellerville Sub; OPEN the S 2843 switch east of Magic City
4. The addition of a temporary 4.2 kV 400 CKVA, the minimum size, capacitor bank installed on a distribution feeder at the CANADIAN substation is required before June 2013.
5. The addition of a temporary 13.2 kV 600 CKVA capacitor bank placed on one of the distribution feeders at the ROBERTS substation is required before June 2013.
6. The addition of a temporary 4 kV 300 CKVA capacitor bank placed on one of the distribution feeders at the BUFFALO substation is required before June 2013.

2014S case

All of the above projects are required in addition to the following:

7. A new 477 ACSR 115 kV transmission line between Bowers substation and Howard substation, approximately 33 miles in length, is required before January 2014.

8. The replacement of the single 40 MVA transformer with dual 84 MVA 115/69 kV transformers at Howard Substation is required before June 2014.

2018S case

All of the above projects are required in addition to the following:

9. The wreck-out and rebuilding of the Canadian to Bowers 69 kV transmission lines, Z47 and Z70 which is 48.8 miles in length, to 795 ACSR at 115 kV is required before December 2014.

The above dates for the required projects may occur any time in between the model dates. As above the 2018S case requires project # 9 to be completed some time after 2014S and well before 2018S. When an interpolation of the voltage violation was done, 0.950 for 2014S and 0.937 for 2018S, the approximate date was found to be late in 2014. After this project is completed the temporary 4.2 MVAR capacitor bank near NP-Miami may be removed.

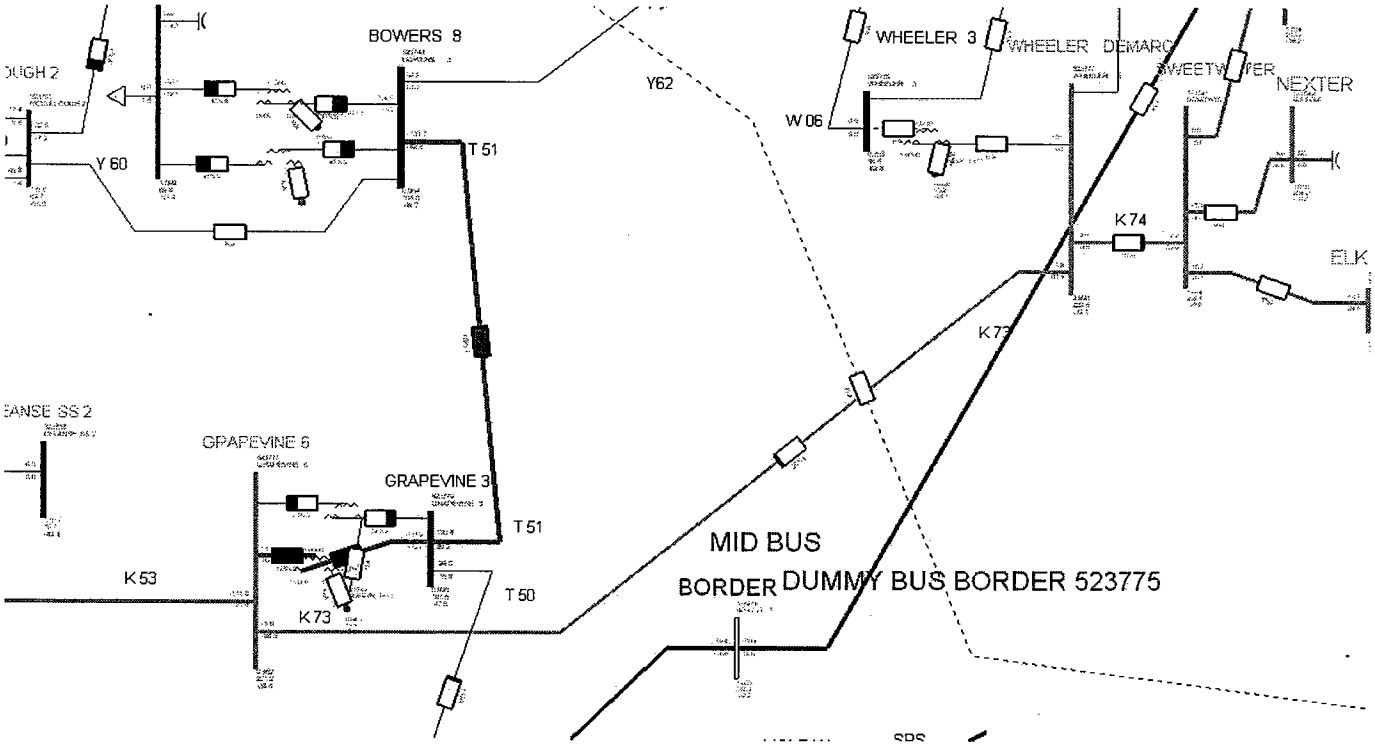
2023S case

All of the above projects are required.

Please reference the #01104 Golden Spread Electric Co-operative Howard Load Study dated February 24, 2011 and the #11130 Golden Spread Electric Co-operative GB-Howard-Miami System Impact Study Report dated March 30, 2012 for very similar results which show the need to shed and restrict load increases during contingencies until the required projects have been completed.

3.2 Facility Impact - Summary of Results from the Single Element Contingency Analysis

Using the powerflow models noted above, the ACCC single-element contingency analysis output results were obtained for all of the load additions. As a result of the contingency analysis, it is evident that after the Bowers to Howard 115 kV transmission line is completed, the 2014 Summer case shows that there is a thermal overload violation caused by the load increase. For example, the contingency of the Wheeler 230/115 transformer would require the new loads such as those on the Howard 115 kV bus to be shed. Both the Grapevine 230/115 kV transformer and the Bowers to Grapevine 115 kV transmission line overload. Those results are shown below for the 2014 Summer case:



3.3 SPS Projects that need to be completed per previous Impact Studies:

As a part of previous Impact Study analysis solutions, the following is a listing of the required projects for the Howard area load increases.

1. New Bowers to Howard 115 kV 477 ACSR transmission line 33 miles in length
2. NP-Miami temporary 69 kV 4.2 MVAR capacitor bank by NP co-operative
3. Canadian temporary 400 CKVA 5 kV distribution capacitor bank
4. Roberts temporary 600 CKVA 13.2 kV distribution capacitor bank
5. Move normally open tie Kite S2746 to S2845 and Magic City S2827 to S2843
6. Canadian to Bowers, Z47 and Z70, 69kV rebuild to 795 ACSR at 115 kV approximately 49 miles
7. Kingsmill Substation 69 kV 28.8 MVAR capacitor bank having two switched sections of 14.4 MVAR
8. Howard Substation replace 40 MVA 115/69 kV transformer with two - 84 MVA transformers
9. Howard Substation 115 kV 28.8 MVAR capacitor bank having two switched sections of 14.4 MVAR
10. Bowers Substation install 2nd 84 MVA 115/69 kV transformer (SPP NTC project)
11. Buffalo Substation install a temporary 300 CKVA distribution capacitor bank
12. Grapevine Substation upgrade 100 MVA 230/115 kV transformer to 250 MVA

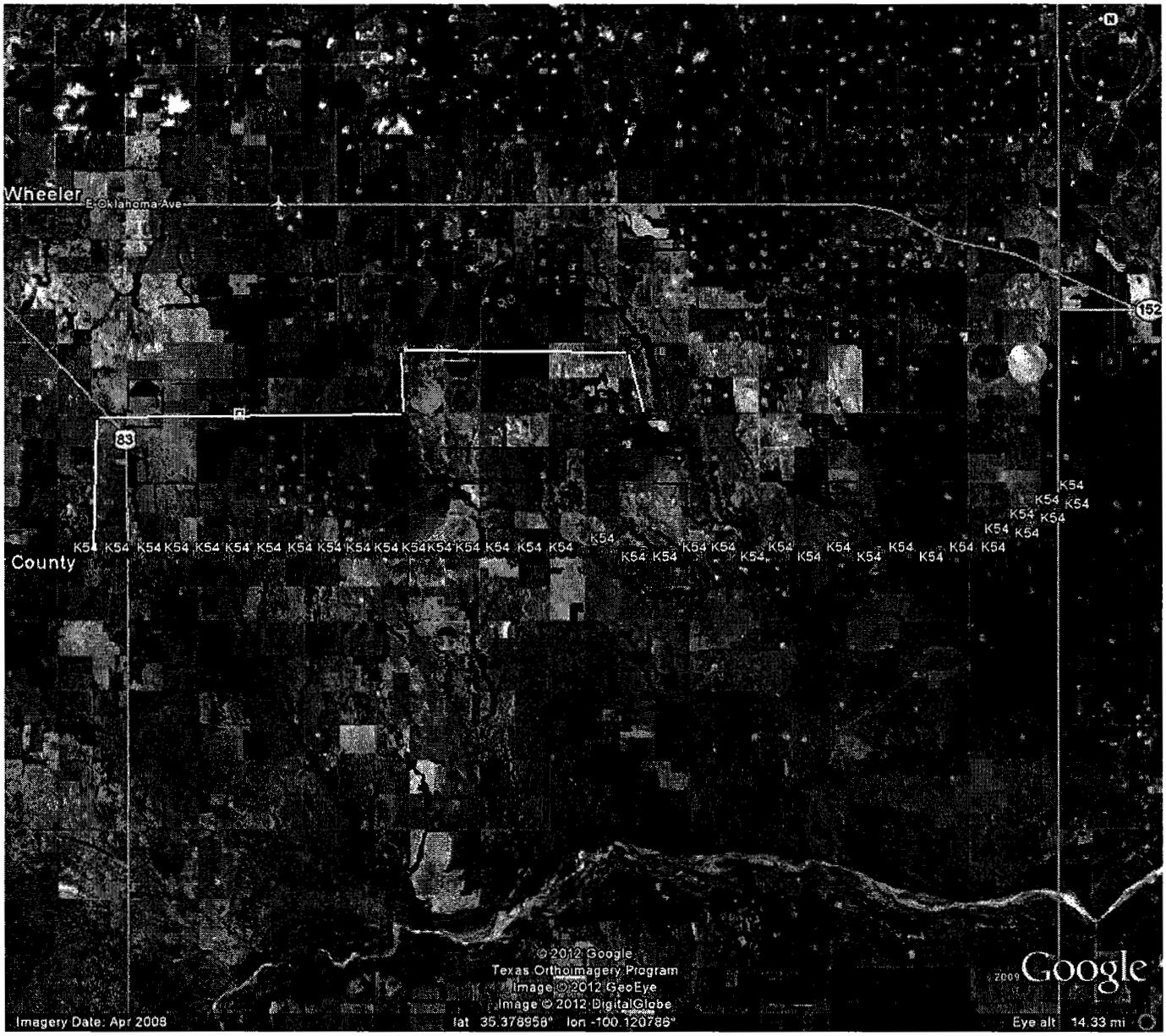
After insertion of the above listed projects into the appropriate models as well as the new 115 kV load, SPS found that the four following additional projects are required before the 2014 Summer peak:

13. Bowers to Grapevine 115 kV transmission line wreck out and rebuild to at least a 249 MVA rating.
14. Replace switch, S 2845 on Z69.3 69 kV line, with a SCADA controlled device
15. Wheeler to near Kelton 13.6 mile 115 kv new transmission line with at least 397.5 ACSR conductor
16. Kelton area substation115 kV 14.4 MVAR capacitor bank having two switched sections of 7.2 MVAR

The Bowers to Grapevine 115 kV transmission circuit T51 needs to be re-conductored as is located below:

T51

New 115 kV transmission line Wheeler to near Kelton, Texas



3.4 SPS Project Selection

This Impact Study has recognized a temporary limit to the area's load expansion as noted previously in several Impact Studies. However, it will result in a minimally acceptable level of expansion of the SPS network during normal network steady state network operations. For the 2013 Summer load addition it shall be recognized that during contingency operation loads must be reduced until all of the SPS recommended area projects are completed.

4. Estimated Construction Costs

The cost estimate summary for the new additional projects is shown in the Table below:

Table 2, Required Interconnection Projects [5]

Project	Description	SPS cost [6]
	Projects to serve Load	
1	Replace switch, S 2845 on Z69.3 69 kV line, with a SCADA controlled device	$ 283,488
2	Wheeler to near Kelton 13.6 mile 115 kv new transmission line with at least 397.5 ACSR conductor	$ 4,360,000
3	Kelton area substation terminal and 115 kV 14.4 MVAR capacitor bank having two switched sections of 7.2 MVAR. Includes 115 kV terminal at Howard substation	$ 5,328,165
	TOTAL	**$ 9,971,653**

5 The cost estimates are 2012 dollars with an accuracy level of ±30% except as noted, without AFUDC.
6 Alternative 1 includes installing a new line Bowers to Howard and a 2nd transformer at Howard Sub and SCADA controlled S2845.

4.1 Construction Schedule

The four proposed system upgrades will require approximately forty (40) months for engineering, procuring and constructing the projects listed in Table 2 and internal approvals are granted. In addition the SPS projects previously referenced in this study, #11130 and # 20327, shall also be completed. An outage of any circuit element in the Bowers-Howard-Wheeler area may require load shedding of any of the newly proposed load increases until all of the projects have been completed.

These transmission system upgrades, however, at the discretion of SPS, may be changed to develop an improved transmission system plan that encompasses other projects while maintaining present and long-term goals, yet meeting equivalent reliability requirements and safety measures.

The forty month schedule indicated is for only the single project duration purposes only and other factors associated with clearances, equipment delays and work schedules could cause additional delays. Therefore, SPS will not be able to meet the in-service date of June 2012 which was requested by the customer, unless the customer can interrupt their load during contingencies.

5. Fault or Short Circuit Study

The Howard 115 kV Interchange is an existing delivery point. The Short Circuit capabilities are repeated in this study for completeness.

Table 3 - Available Short Circuit Values Existing at Howard Interchange 115 kV

FAULT LOCATION: 115 KV STATION BUS[7]						
FAULT TYPE	**FAULT CURRENT** *(in Amps)*			**FAULT IMPEDANCE** *(in Ohms)*		
	Pos. (+)	**Neg. (-)**	**Zero /3Io**	**Pos. (+)**	**Neg. (-)**	**Zero / 3Io**
L-G	1238	1238	3,715	2.90 + j 16.07	2.90 + j 16.07	3.53 + j 20.64
3-PHASE	4,064	0	0	2.90 + j 16.07	2.90 + j 16.07	3.53 + j 20.64

8 Use as required by NERC Standard FAC-002-0 R1.4 "Evidence that the assessment included steady-state, short-circuit, and dynamics studies as necessary to evaluate system performance in accordance with Reliability Standard TPL-001-0."

Table 4 - Available Short Circuit Values Existing at Wheeler Interchange 115 kV

FAULT LOCATION: 115 KV STATION BUS[8]						
FAULT TYPE	**FAULT CURRENT** *(in Amps)*			**FAULT IMPEDANCE** *(in Ohms)*		
	Pos. (+)	**Neg. (-)**	**Zero /3Io**	**Pos. (+)**	**Neg. (-)**	**Zero / 3Io**
L-G	1501	1501	4,504	1.69 + j 16.70	1.69 + j 16.70	0.69 + j 10.63
3-PHASE	3,954	0	0	1.69 + j 16.70	1.69 + j 16.70	0.69 + j 10.63

8 Use as required by NERC Standard FAC-002-0 R1.4 "Evidence that the assessment included steady-state, short-circuit, and dynamics studies as necessary to evaluate system performance in accordance with Reliability Standard TPL-001-0."

Appendix A

System N-1 Contingency violations before re-conductoring project completion

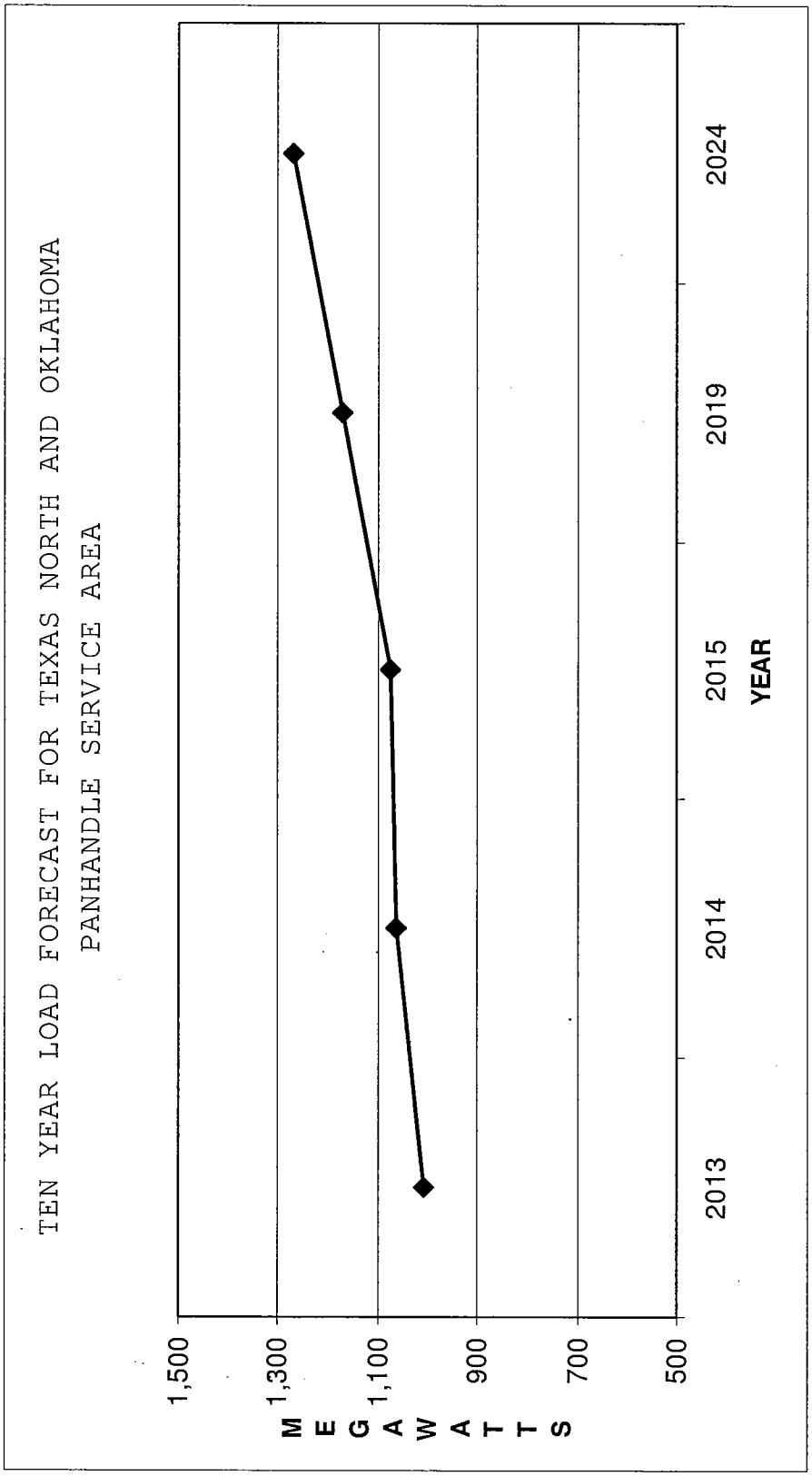
		CONTINGENCY					
	RANGE	Wheeler 230/115 kV Transformer				Nichols- Midstream Tap 115 kV line	
LIMITING ELEMENT	(kV-pu) [1]	2013S	2014S	2018S	2023S	2014S	2018S
Bowers - grapevine line	159/160 MVA	*	109%	126%	142%	55%	57%

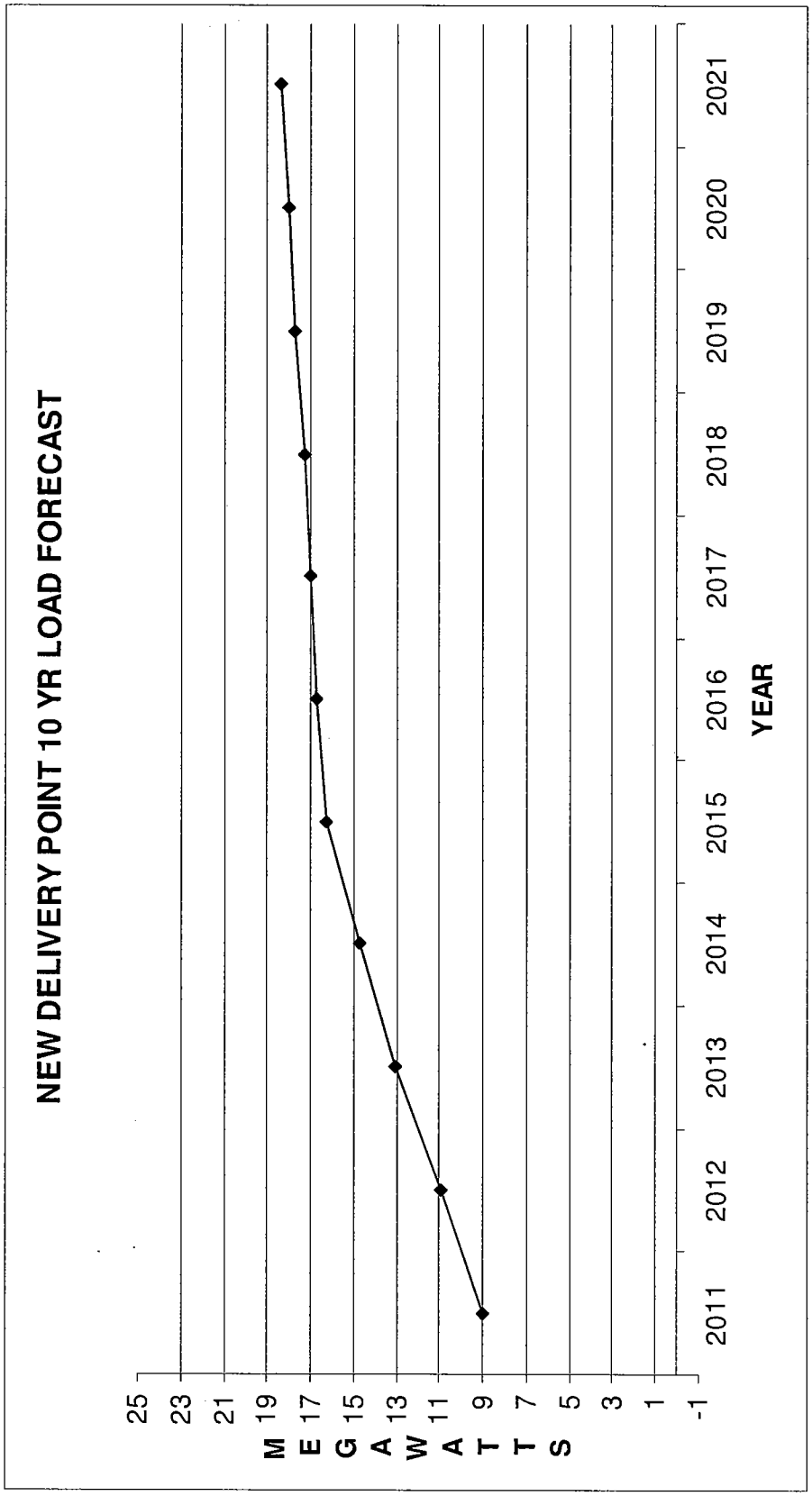
*** The area is radial**

System N – 1 Contingency Results after re-conductoring project completion

		CONTINGENCY					
	RANGE	Wheeler 230/115 kV Transformer				Nichols- Midstream Tap 115 kV line	
LIMITING ELEMENT	(kV-pu) [1]	2013S	2014S	2018S	2023S	2013S	2018S
Bowers - Grapevine line	276/303 MVA	*	51%	56%	57%	26%	36%

[End of GB Howard Load System Impact Report]

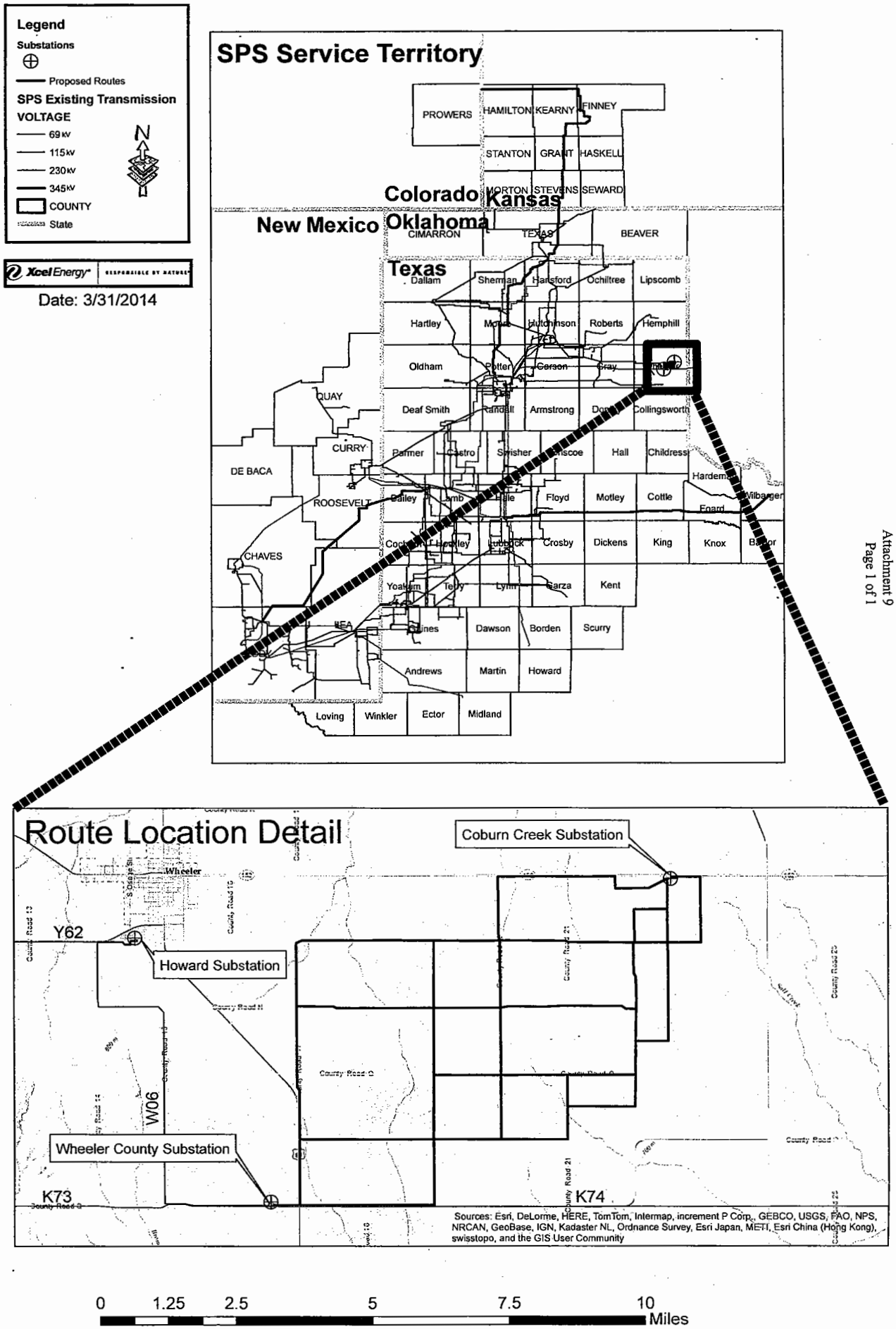

TEN YEAR LOAD FORECAST FOR TEXAS NORTH AND OKLAHOMA
PANHANDLE SERVICE AREA
1,500
1,300
1,100
900
700
500
MEGAWATTS
2013
2014
2015
2019
2024
YEAR


NEW DELIVERY POINT 10 YR LOAD FORECAST
MEGAWATTS
25
23
21
19
17
15
13
11
9
7
5
3
1
-1
2011
2012
2013
2014
2015
2016
2017
2018
2019
2020
2021
YEAR

Historic and Future Load Projections for the Howard Substation

Year/Sub	Howard (MVA)	Howard % Loading	Coburn Creek (MVA)	Note
2011	8.95	64%	0	
2012	10.52	75%	0	
2013	10.78	77%	0	
2014	16.05	115%	0	5MVA load increase
2015	16.05	115%	0.00	
2016	7.05	50%	9.00	Load transfer to Coburn Creek
2017	7.19	51%	9.18	
2018	7.33	52%	9.36	
2019	7.48	53%	9.55	
2020	7.63	55%	9.74	
2021	7.78	56%	9.94	
2022	7.94	57%	10.14	
2023	8.10	58%	10.34	

Wheeler to Coburn Creek CCN Schematic 115kV



SOUTHWESTERN PUBLIC SERVICE COMPANY

Siting and Land Rights

P.O. Box 1261
Amarillo, TX 79105-1261
Telephone: **806-378-2436**
Facsimile: 806-378-2724

May 19, 2014

VIA FIRST CLASS MAIL

«First_Name»
«Address_1»
«City», «State» «Zip»

Dear Landowner:

Application of Southwestern Public Service Company to Amend a Certificate of Convenience and Necessity for a Proposed 115-kV Transmission Line within Wheeler County, Texas

PUBLIC UTILITY COMMISSION OF TEXAS DOCKET NO. 42388

Southwestern Public Service Company (SPS), a subsidiary of Xcel Energy Inc., is providing notice of its intent to file an application amending its Certificate of Convenience and Necessity (CCN) in order to construct and operate a new 115-kilovolt (kV) transmission line within Wheeler County, Texas.

SPS is proposing to construct and operate a single circuit, 115-kilovolt (kV) electric transmission line between the existing Wheeler County Substation and a new Coburn Creek Substation both located in Wheeler County, Texas. The proposed transmission line is needed for reliability and to address load growth in the eastern Texas Panhandle. SPS has determined that increased distribution capacity is necessary in the Wheeler, Texas area. This proposed 115-kV transmission line is needed to provide a source for the new 28 MVA Coburn Creek Substation. This new substation will address the distribution capacity need that was identified by SPS distribution system planning and allow SPS to meet the increased distribution demand in the area.

The Project will involve the construction of a new transmission line which will begin at the existing Wheeler County Substation located in Wheeler County, approximately 5.2 miles south-southeast of the city of Wheeler, and will extend generally northeast until it reaches the proposed Coburn Creek Substation located along State Highway 152, approximately 7.5 miles east of the city of Wheeler. The transmission line will be constructed using single-circuit, self-supporting steel monopole structures. The proposed transmission line will be constructed on new right-of-way (ROW) with a proposed permanent easement of 70 feet (wider in exceptional circumstances) and a proposed temporary easement of an additional 30 feet during construction. The proposed transmission line is presented with nine alternative routes consisting of a combined 36 segments and is estimated to be 10.8-11.8 miles depending on which route is selected.

Depending on the route chosen, the total cost of the project, including the transmission line and substation costs, is estimated to be between approximately $12.6 million and $13.2 million.

Your land may be directly affected by the outcome of this docket. If one of SPS's alternative routes is approved by the Public Utility Commission of Texas (Commission or PUC), SPS will have the right to build a facility, which may directly affect your land. This docket will not determine the value of your land or the value of an easement if one is needed by SPS to build the facility. If you have questions about the transmission line you may contact Lance Kenedy at 806-378-2435 or James Bagley at 806-378-2868. A detailed map of SPS's proposed routes is included with this letter, along with a written description of the segments that comprise the proposed routes. This same detailed routing map may be viewed at SPS's offices at Chase Tower, 600 S. Tyler Street, Suite 2700, Amarillo, Texas, 79101. Information about the proposed project is also accessible on Xcel Energy's website *Power for the Plains* at http://www.powerfortheplains.com.

All routes and route segments included in this notice are available for selection and approval by the Commission.

The PUC has a brochure entitled "Landowners and Transmission Line Cases at the PUC" that provides basic information about how you may participate in this docket, and how you may contact the PUC. Please read this brochure carefully. The brochure includes sample forms for making comments and for making a request to intervene as a party in this docket. Copies of the brochure are enclosed and are also available from Lance Kenedy at 806-378-2435 or may be downloaded from the PUC's website at www.puc.state.tx.us. ***The only way to fully participate in the PUC's decision on where to locate the transmission line is to intervene in the docket. It is important for an affected person to intervene because the utility is not obligated to keep affected persons informed of the PUC's proceedings and cannot predict which route may or may not be approved by the PUC.***

In addition to the contacts listed in the brochure, you may call the PUC's Customer Assistance Hotline at 888-782-8477. Hearing- and speech-impaired individuals with text telephones (TTY) may contact the PUC's Customer Assistance Hotline at 512-936-7136 or toll free at 800-735-2989. If you wish to participate in this proceeding by becoming an intervenor, the deadline for intervention in the proceeding is July 3, 2014, and the PUC should receive a letter from you requesting intervention by that date. Mail the request for intervention and 10 copies of the request to:

Public Utility Commission of Texas
Central Records
Attn: Filing Clerk
1701 N. Congress Ave.
P.O. Box 13326
Austin, Texas 78711-3326

Persons who wish to intervene in the docket must also mail a copy of their request for intervention to all parties in the docket and all persons that have pending motions to intervene, at or before the time the request for intervention is mailed to the PUC. In addition to the intervention deadline, other important deadlines may already exist that affect your participation in this docket. You should review the orders and other filings already made in the docket. The enclosed brochure explains how you can access these filings.

Sincerely,

Sean L. Frederiksen, Manager
Siting and Land Rights
Enclosures

Xcel Energy, Inc.
Wheeler-Coburn Creek 115-kV Transmission Line Project
Wheeler County, Texas

Southwestern Public Service Company (SPS) a subsidiary of Xcel Energy Inc. (Xcel) has filed an application with the Public Utility Commission of Texas (PUC) to amend their Certificate of Convenience and Necessity (CCN) to construct the proposed Wheeler County to Coburn Creek 115 kV transmission line. Various combinations of transmission line segments form routing options for the project.

Route Number	Segments	Route Length
1	A-B-C-D-N-U-CC-FF-GG-HH-II	10.9
2	A-B-C-G-M-T-BB-CC-DD-HH-II	11.0
3	A-B-F-K-O-P-Q-V-II	11.2
4	A-B-F-H-L-S-Y-Z-AA-BB-CC-FF-GG-HH-II	10.9
5	A-E-H-I-J-N-U-CC-FF-GG-HH-II	10.9
6	A-E-K-R-X-Z-EE-GG-HH-II	10.8
7	A-E-K-R-W-Y-Z-EE-JJ	11.8
8	A-E-H-L-P-Q-U-CC-FF-GG-HH-II	10.9
9	A-E-H-L-S-Y-Z-AA-BB-CC-FF-GG-HH-II	10.9

SEGMENT A

Segment A begins at the southeastern edge of the existing Wheeler County Substation, located approximately 0.39 mile west-northwest of the intersection of FM 1906/CRQ and US Highway 83, in the Section 1/Abstract 403. The segment runs east for approximately 0.22 mile parallel to the north side of FM 1906/CR Q, along the southern boundary of Section 1/Abstract 403, and crosses a pipeline. The segment then continues east for approximately 0.19 mile and crosses US Highway 83 before entering Section 4/Abstract 8319 and reaching the segment's intersection with Segments B and E, located on the northeast corner of the intersection of FM 1906 and US Highway 83, in the southwest corner of Section 4/Abstract 8319.

SEGMENT B

Segment B begins at the intersection of Segments A and E, located on the northeast corner of the intersection of FM 1906 and US Highway 83, in the southwest corner of Section 4/Abstract 8319. The segment runs north for approximately 0.99 mile parallel to the east side of US Highway 83, along the western boundary of Section 4/Abstract 8319 and crosses into Section 3/Abstract 404, before it reaches the segment's intersection with Segments C and F, located approximately 0.02 mile northeast of the intersection of CR P and US Highway 83, in the southwest corner of Section 3/Abstract 404.

SEGMENT C

Segment C begins at the intersection with Segments B, and F, located approximately 0.02 mile northeast of the intersection of CR P and US Highway 83, in the southwest corner of Section 3/Abstract 404. The segment runs north for approximately 0.54 mile parallel to the east side of US Highway 83, along the western boundary of Section 3/Abstract 404. The segment continues north for approximately 0.21 mile parallel to the east side of CR 17, along the western boundary

of Section 3/Abstract 404. The segment then turns northwest for approximately 0.06 mile crossing CR 17 into Section 2/Abstract 8676. The segment then turns north for approximately 0.12 mile parallel to the west side of CR 17, along the eastern boundary of Section 2/Abstract 8676 and crosses a pipeline, then continues north approximately 0.08 mile and crosses CR O into Section 14/Abstract 455. The segment continues north for approximately 1.02 miles parallel to the west side of an existing 69 kV transmission line and CR 17, along the eastern boundary of Section 14/Abstract 455 and crosses CR N and the existing 69 kV transmission line into Section 6/Abstract 8383 before it reaches the segment's intersection with Segments D and G, located on the northwest corner of CR N and CR 17, in the southeast corner of Section 6/Abstract 8383.

SEGMENT D

Segment D begins at the intersection of Segments C and G, located on the northwest corner of CR N and CR 17, in the southeast corner of Section 6/Abstract 8383. The segment runs north for approximately 0.41 mile parallel to the west side of CR 17, along the eastern boundary of Section 6/Abstract 8383, crossing a pipeline and continuing approximately 0.07 mile before crossing into Section 6/Abstract 8658. The segment then continues north for approximately 0.11 mile parallel to the west side of CR 17, along the eastern boundary of Section 6/Abstract 8658, crossing a pipeline and continuing north for approximately 0.13 mile, crossing into Section 6/Abstract 8570. The segment then continues north for approximately 0.23 mile parallel to the west side of CR 17, along the eastern boundary of Section 6/Abstract 8570. The segment then turns northeast for approximately 0.10 mile and crosses CR 17 into Section 4/Abstract 8374 before entering Section 3/Abstract 397. The segment then turns east for approximately 1.98 miles along the southern boundaries of Section 3/Abstract 397 and Section 1/Abstracts 396 and 392, until it reaches the segment's intersection with Segments J and N, located approximately 1.38 miles southwest of the intersection of State Highway 152 and CR 20, in the southwest corner of Section 1/Abstract 392.

SEGMENT E

Segment E begins at the intersection of Segments A and B, located on the northeast corner of the intersection of FM 1906/CR Q and US Highway 83, in the southwest corner of Section 4/Abstract 8319. The segment runs east for approximately 1.57 miles parallel to the north side of FM 1906, along the southern boundaries of Section 4/Abstract 8319 and Section 5/Abstract 402, crossing East Branch Bronco Creek. The segment continues east along the southern boundary of Section 5/Abstract 402 for approximately 0.44 mile, crossing CR 19 into Section 23/Abstract 473. The segment then turns north for approximately 1.00 mile parallel to the east side of CR 19 along the western boundary of Section 23/Abstract 473, and crossing into Section 15/Abstract 456 before reaching the segment's intersection with Segments F, H and K, located approximately 1.00 mile north of the intersection of FM 1906 and CR 19, in the southwest corner of Section 15/Abstract 456.

SEGMENT F

Segment F begins at the intersection of Segments B and C, located approximately 0.02 mile northeast of the intersection of CR P and US Highway 83, in the southwest corner of Section 3/Abstract 404. The segment runs east for approximately 1.28 miles along the southern boundaries of Section 3/Abstract 404 and Section 6/Abstract 8474, crossing East Branch Bronco Creek. The segment then continues east for approximately 0.72 mile along the southern boundaries of Section 6/Abstracts 8474 and 516, crossing CR 19 into Section 15/Abstract 456 and terminating at the segment's intersection with Segments E, H and K located approximately 1.00 mile north of the intersection of FM 1906 and CR 19, in the southwest corner of Section

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15/Abstract 456.

SEGMENT G

Segment G begins at the intersection of Segments C and D, located on the northwest corner of CR N and CR 17, in the southeast corner of Section 6/Abstract 8383. The segment runs east for approximately 0.04 mile, crossing CR 17 into Section 4/Abstract 8374. The segment then runs east for approximately 0.40 mile parallel to the north side of CR N along the southern boundary of Section 4/Abstract 8374, and crosses a pipeline. The segment continues east for approximately 0.11 mile, then turns southeast for approximately 0.06 mile and crosses CR N and a pipeline into Section 13/Abstract 454. The segment then turns east for approximately 0.44 mile parallel to the south side of CR N along the northern boundary of Section 13/Abstract 454 and crosses into Section 12/Abstract 453. The segment continues east for approximately 1.02 miles along the northern boundary of Section 12/Abstract 453 and crosses into Section 11/Abstract 466 before it reaches the segment's intersection with Segments I, J and M, located approximately 1.00 mile north of the intersection of CR O and CR 19, in the northwest corner of Section 11/Abstract 466.

SEGMENT H

Segment H begins at the intersection of Segments E, F and K, located approximately 1.00 mile north of the intersection of FM 1906 and CR 19, in the southwest corner of Section 15/Abstract 456. The segment runs north for approximately 0.92 mile parallel to the east side of CR 19 along the western boundary of Section 15/Abstract 456, crossing a pipeline, and continuing approximately 0.06 mile until it reaches the segment's intersection with Segments I and L, located on the southeast corner of CR O and CR 19, in the northwest corner of Section 15/Abstract 456.

SEGMENT I

Segment I begins at the intersection of Segments H and L, located on the southeast corner of CR O and CR 19, in the northwest corner of Section 15/Abstract 456. The segment runs north for approximately 0.02 mile, crossing CR O into Section 11/Abstract 466 and crossing an existing 69 kV transmission line. The segment then continues north approximately 0.99 mile along the western boundary of Section 11/Abstract 466 until it reaches the segment's intersection with Segments G, J and M, located approximately 1.00 mile north of the intersection of CR O and CR 19, in the northwest corner of Section 11/Abstract 466.

SEGMENT J

Segment J begins at the intersection of Segments G, I and M, located approximately 1.00 mile north of the intersection of CR O and CR 19, in the northwest corner of Section 11/Abstract 466. The segment runs north for approximately 0.03 mile, crossing into Section 2/Abstract 8375 and over a pipeline. The segment then continues north for approximately 0.42 mile along the western boundary of Section 2/Abstract 8375, crossing another pipeline. The segment then continues north along the western boundary of Section 2/Abstract 8375 for approximately 0.57 mile, crossing into Section 1/Abstract 392 before it reaches the segment's intersection with Segments D and N, located approximately 1.38 miles southwest of the intersection of State Highway 152 and CR 20, in the southwest corner of Section 1/Abstract 392.

SEGMENT K

Segment K begins at the intersection of Segments E, F and H, located approximately 1.00 mile north of the intersection of FM 1906 and CR 19, in the southwest corner of Section 15/Abstract

456. The segment runs east for approximately 1.00 mile along the southern boundary of Section 15/Abstract 456, and crosses into Section 16/Abstract 457 before reaching the segment's intersection with Segments O and R, located approximately 1.42 miles northwest of the intersection of FM 1906 and CR 21, in the southwest corner of Section 16/Abstract 457.

SEGMENT L

Segment L begins at the intersection of Segments H and I, located on the southeast corner of CR O and CR 19, in the northwest corner of Section 15/Abstract 456. The segment runs east for approximately 1.00 mile parallel to the south side of CR O along the northern boundary of Section 15/Abstract 456, crossing into Section 16/Abstract 457 before reaching the segment's intersection with Segments O, P and S, located approximately 0.99 mile west of the intersection of CR O and CR 21, in the northwest corner of Section 16/Abstract 457.

SEGMENT M

Segment M begins at the intersection of Segments G, I and J, located approximately 1.00 mile north of the intersection of CR O and CR 19, in the northwest corner of Section 11/Abstract 466. The segment runs east for approximately 0.99 mile, crossing into Section 10/Abstract 465 and reaching the segment's intersection with Segments P, Q and T, located approximately 1.42 miles northeast of the intersection of CR O and CR 19, in the northwest corner of Section 10/Abstract 465.

SEGMENT N

Segment N begins at the intersection of Segments D and J, located approximately 1.38 miles southwest of the intersection of State Highway 152 and CR 20, in the southwest corner of Section 1/Abstract 392. The segment runs east for approximately 0.98 mile along the southern boundary of Section 1/Abstract 392, crossing CR 20 into Section 2/Abstract 8774 before reaching the intersection of Segments Q, U and V, located approximately 0.98 mile south of the intersection of State Highway 152 and CR 20, in the southwest corner of Section 2/Abstract 8774.

SEGMENT O

Segment O begins at the intersection of Segments K and R, located approximately 1.42 miles northwest of the intersection of FM 1906 and CR 21, in the southwest corner of Section 16/Abstract 457. The segment runs north for approximately 0.59 mile along the western boundary of Section 16/Abstract 457, and crosses a pipeline. The segment then continues north for approximately 0.38 mile along the western boundary of Section 16/Abstract 457 until it reaches the segment's intersection with Segments L, P and S, located approximately 0.99 mile west of the intersection of CR O and CR 21, in the northwest corner of Section 16/Abstract 457.

SEGMENT P

Segment P begins at the intersection of Segments L, O and S, located approximately 0.99 mile west of the intersection of CR O and CR 21, in the northwest corner of Section 16/Abstract 457. The segment runs north for approximately 0.03 mile, crossing CR O into Section 10/Abstract 465 and crossing an existing 69 kV transmission line. The segment then continues north approximately 0.99 mile along the western boundary of Section 10/Abstract 465 until it reaches the segment's intersection with Segments M, Q and T, located approximately 1.42 miles northeast of the intersection of CR O and CR 19, in the northwest corner of Section 10/Abstract 465.

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SEGMENT Q

Segment Q begins at the intersection of Segments M, P and T, located approximately 1.42 miles northeast of the intersection of CR O and CR 19, in the northwest corner of Section 10/Abstract 465. The segment runs north for approximately 0.05 mile along the western boundary of Section 1/Abstract 458 and crosses a pipeline. The segment then continues north approximately 0.41 mile along the western boundary of Section 1/Abstract 458 and crosses another pipeline. The segment continues north approximately 0.57 mile and crosses into Section 2/Abstract 8774 before it reaches the segment's intersection with Segments N, U and V, located approximately 0.98 mile south of the intersection of State Highway 152 and CR 20, in the southwest corner of Section 2/Abstract 8774.

SEGMENT R

Segment R begins at the intersection of Segments K and O, located approximately 1.42 miles northwest of the intersection of FM 1906 and CR 21, in the southwest corner of Section 16/Abstract 457. The segment runs east for approximately 0.28 mile along the southern boundary of Section 16/Abstract 457, crossing a pipeline. The segment continues east for approximately 0.72 mile along the southern boundary of Section 16/Abstract 457, and crosses CR 21 into Section 17/Abstract 467. The segment then turns north for approximately 0.50 mile parallel to the east side of CR 21 along the western boundary of Section 17/Abstract 467 and crosses a pipeline before it reaches the segment's intersection with Segments W and X, located approximately 0.49 mile south of the intersection of CR O and CR 21, in Section 17/Abstract 467.

SEGMENT S

Segment S begins at the intersection of Segments L, O and P, located approximately 0.99 mile west of the intersection of CR O and CR 21, in the northwest corner of Section 16/Abstract 457. The segment runs east for approximately 0.99 mile parallel to the south side of CR O along the northern boundary of Section 16/Abstract 457 and crosses CR 21 into Section 17/Abstract 467 before it reaches the segment's intersection with Segments W and Y, located on the southeast corner of the intersection of CR O and CR 21, in the northwest corner of Section 17/Abstract 467.

SEGMENT T

Segment T begins at the intersection of Segments M, P and Q, located approximately 1.42 miles northeast of the intersection of CR O and CR 19, in the northwest corner of Section 10/Abstract 465. The segment runs northeast for approximately 0.11 mile and crosses into Section 1/Abstract 458. The segment then turns east for approximately 1.69 miles parallel to the south side of a pipeline along the southern boundaries of Section 1/Abstract 458 and Section 2/Abstract 459 and crosses CR 21 between the sections. The segment then turns southeast for approximately 0.08 mile and crosses into Section 9/Abstract 475. The segment then turns east for approximately 0.16 mile along the northern boundary of Section 9/Abstract 475 and crosses CR 22 into Section 8/Abstract 474 before it reaches the segment's intersection with Segments AA and BB, located approximately 0.98 mile northeast of the intersection of CR O and CR 22, in the northwest corner of Section 8/Abstract 474.

SEGMENT U

Segment U begins at the intersection of Segments N, Q and V, located approximately 0.98 mile south of the intersection of State Highway 152 and CR 20, in the southwest corner of Section

2/Abstract 8774. The segment runs east for approximately 0.98 mile along the southern boundary of Section 2/Abstract 8774. The segment then turns southeast for approximately 0.05 mile, and crosses CR 21 into Section 2/Abstract 459. The segment then turns east for approximately 0.98 mile along the northern boundary of Section 2/Abstract 459 until it reaches the segment's intersection with Segments BB and CC, located approximately 1.02 miles south of the intersection of State Highway 152 and CR 22, in the northeast corner of Section 2/Abstract 459.

SEGMENT V

Segment V begins at the intersection of Segments N, Q and U, located approximately 0.98 mile south of the intersection of State Highway 152 and CR 20, in the southwest corner of Section 2/Abstract 8774. The segment runs northwest for approximately 0.10 mile and crosses CR 20 into Section 1/Abstract 392. The segment then turns north for approximately 0.87 mile parallel to the west side of CR 20 along the eastern boundary of Section 1/Abstract 392. The segment then turns east for approximately 1.04 miles parallel to the south side of State Highway 152 along the northern boundary of Section 2/Abstract 8384 and crosses CR 21 into Section 1/Abstract 391. The segment the continues east for approximately 0.19 mile parallel to the south side of State Highway 152 along the northern boundary of Section 1/Abstract 391, where it crosses two pipelines, then continues approximately 0.51 mile. The segment then turns south for approximately 0.19 mile and crosses the two pipelines again. The segment then turns east for approximately 0.07 mile and crosses the two pipelines again. The segment then continues east for approximately 0.22 mile and crosses into Section 4/Abstract 8195. The segment then continues east for approximately 0.21 mile where it turns northeast for approximately 0.31 mile and crosses into Section 4/Abstract 8484 before it reaches the segment's intersection with Segments HH and II, located 0.05 mile south of the intersection of State Highway 152 and CR 419, in the northwest corner of Section 4/Abstract 8484.

SEGMENT W

Segment W begins at the intersection of Segments R and X, located approximately 0.49 mile south of the intersection of CR O and CR 21, in Section 17/Abstract 467. The segment runs north for approximately 0.48 mile parallel to the east side of CR 21 along the western boundary of Section 17/Abstract 467 until it reaches the segment's intersection with Segments S and Y, located on the southeast corner of the intersection of CR O and CR 21, in the northwest corner of Section 17/Abstract 467.

SEGMENT X

Segment X begins at the intersection of Segments R and W, located approximately 0.49 mile south of the intersection of CR O and CR 21, in Section 17/Abstract 467. The segment runs east for approximately 1.01 miles parallel to the north side of a pipeline and crosses into Section 18/Abstract 468. The segment then turns north for approximately 0.48 mile along the western boundary of Section 18/Abstract 468 until it reaches the segment's intersection with Segments Y and Z, located southeast of the intersection of CR O and CR 22, in the northwest corner of Section 18/Abstract 468.

SEGMENT Y

Segment Y begins at the intersection of Segments S and W, located on the southeast corner of the intersection of CR O and CR 21, in the northwest corner of Section 17/Abstract 467. The segment runs east for approximately 1.02 miles parallel to the south side of CR O, and crosses into Section 18/Abstract 468, before it reaches the segment's intersection with Segments X and Z,

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located southeast of the intersection of CR O and CR 22, in the northwest corner of Section 18/Abstract 468.

SEGMENT Z

Segment Z begins at the intersection of Segments X and Y, located southeast of the intersection of CR O and CR 22, in the northwest corner of Section 18/Abstract 468. The segment runs north for approximately 0.02 mile parallel to the east side of CR 22 along the western boundary of Section 8/Abstract 474, crossing CR O and an existing 69 kV transmission line. The segment continues north for approximately 0.49 mile parallel to the east side of CR 22 along the western boundary of Section 8/Abstract 474 until it reaches the segment's intersection with Segments AA and EE located approximately 0.50 mile north of the intersection of CR O and CR 22, in Section 8/Abstract 474.

SEGMENT AA

Segment AA begins at the intersection of Segments Z and EE, located approximately 0.50 mile north of the intersection of CR O and CR 22, in Section 8/Abstract 474. The segment runs north for approximately 0.49 mile parallel to the east side of CR 22 along the western boundary of Section 8/Abstract 474 until it reaches the segment's intersection with Segments T and BB, located approximately 0.98 mile northeast of the intersection of CR O and CR 22, in the northwest corner of Section 8/Abstract 474.

SEGMENT BB

Segment BB begins at the intersection of Segments T and AA, located approximately 0.98 mile northeast of the intersection of CR O and CR 22, in the northwest corner of Section 8/Abstract 474. The segment runs north for approximately 0.06 mile along the western boundary of Section 3/Abstract 460 and crosses a pipeline. The segment continues north for approximately 0.42 mile along the western boundary of Section 3/Abstract 460 and crosses another pipeline. Approximately 0.01 mile after the pipeline, the segment turns northwest for approximately 0.07 mile and crosses into Section 2/Abstract 459. The segment then turns north for approximately 0.46 mile along the eastern boundary of Section 2/Abstract 459 until it reaches the segment's intersection with Segments U and CC, located approximately 1.02 miles south of the intersection of State Highway 152 and CR 22, in the northeast corner of Section 2/Abstract 459.

SEGMENT CC

Segment CC begins at the intersection of Segments U and BB, located approximately 1.02 miles south of the intersection of State Highway 152 and CR 22, in the northeast corner of Section 2/Abstract 459. The segment runs east for approximately 0.02 mile, and crosses into Section 3/Abstract 460 before it reaches the segment's intersection with Segments DD and FF, located approximately 1.02 miles south of the intersection of State Highway 152 and CR 22, in the northwest corner of Section 3/Abstract 460.

SEGMENT DD

Segment DD begins at the intersection of Segments CC and FF, located approximately 1.02 miles south of the intersection of State Highway 152 and CR 22, in the northwest corner of Section 3/Abstract 460. The segment runs north for approximately 0.50 mile, immediately crossing into Section 4/Abstract 8325 and running along its western boundary. The segment then turns east and travels for approximately 0.50 mile along the northern boundary of Section 4/Abstract 8325 and crosses into Section 4/Abstract 8484 before it reaches the segment's intersection with Segments

GG and HH, located approximately 0.51 mile south of the intersection of State Highway 152 and CR 419, in Section 4/Abstract 8484.

SEGMENT EE

Segment EE begins at the intersection of Segments Z and AA, located approximately 0.50 mile north of the intersection of CR O and CR 22, in Section 8/Abstract 474. The segment runs east for approximately 0.49 mile. The segment then turns north for approximately 0.50 mile and crosses into Section 3/Abstract 460. The segment then continues north for approximately 0.02 mile and crosses a pipeline. The segment then continues north for approximately 0.45 mile and crosses another pipeline. The segment then continues north approximately 0.54 mile until it reaches the segment's intersection with Segments FF, GG and JJ, located approximately 1.01 miles south of the intersection of State Highway 152 and CR 419, in Section 3/Abstract 460.

SEGMENT FF

Segment FF begins at the intersection of Segments CC and DD, located approximately 1.02 miles south of the intersection of State Highway 152 and CR 22, in the northwest corner of Section 3/Abstract 460. The segment runs east for approximately 0.50 mile along the northern boundary of Section 3/Abstract 460 until it reaches the segment's intersection with Segments EE, GG and JJ, located approximately 1.01 miles south of the intersection of State Highway 152 and CR 419, in Section 3/Abstract 460.

SEGMENT GG

Segment GG begins at the intersection of Segments EE, FF and JJ, located approximately 1.01 miles south of the intersection of State Highway 152 and CR 419, in Section 3/Abstract 460. The segment runs north for approximately 0.50 mile, immediately crossing into Section 4/Abstract 8484 and running along its western boundary until reaching the segment's intersection with Segments DD and HH, located approximately 0.51 mile south of the intersection of State Highway 152 and CR 419, in Section 4/Abstract 8484.

SEGMENT HH

Segment HH begins at the intersection of Segments DD and GG, located approximately 0.51 mile south of the intersection of State Highway 152 and CR 419, in Section 4/Abstract 8484. The segment runs north for approximately 0.15 mile along the western boundary of Section 4/Abstract 8484, crossing two pipelines and then continuing north for approximately 0.31 mile until it reaches the segment's intersection with Segments V and II, located 0.05 mile south of the intersection of State Highway 152 and CR 419, in the northwest corner of Section 4/Abstract 8484.

SEGMENT II

Segment II begins at the intersection of Segments V and HH, located 0.05 mile south of the intersection of State Highway 152 and CR 419, in the northwest corner of Section 4/Abstract 8484. The segment runs east for approximately 0.02 mile until it reaches the proposed Coburn Creek Substation, located approximately 0.06 mile south-southeast of the intersection of State Highway 152 and CR 419, in Section 4/Abstract 8484.

SEGMENT JJ

Segment JJ begins at the intersection of Segments EE, FF and GG, located approximately 1.01 miles south of the intersection of State Highway 152 and CR 419, in Section 3/Abstract 460. The

segment runs east for approximately 0.51 mile along the northern boundary of Section 3/Abstract 460 and crosses into Section 4/Abstract 461. The segment then turns north for approximately 0.51 mile, immediately crossing into Section 3/Abstract 2, running along its western boundary, and crossing a pipeline. The segment continues north for approximately 0.08 mile parallel to the east side of CR 23 along the western boundary of Section 3/Abstract 2, crosses another pipeline, then continues north for approximately 0.41 mile. The segment then turns west for approximately 0.43 mile parallel to the south side of State Highway 152, immediately crossing into Section 4/Abstract 8484 and continuing its northern boundary until it reaches the proposed Coburn Creek Substation, located approximately 0.08 mile east of the intersection of State Highway 152 and CR 419, in the northwest corner of Section 4/Abstract 8484.

Landowners and Transmission Line Cases at the PUC

Public Utility Commission of Texas

1701 N. Congress Avenue
P.O. Box 13326
Austin, Texas 78711-3326
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www.puc.state.tx.us

Effective: June 1, 2011

Purpose of This Brochure

This brochure is intended to provide landowners with information about proposed new transmission lines and the Public Utility Commission's ("PUC" or "Commission") process for evaluating these proposals. At the end of the brochure is a list of sources for additional information.

The following topics are covered in this brochure:
- How the PUC evaluates whether a new transmission line should be built,
- How you can participate in the PUC's evaluation of a line, and
- How utilities acquire the right to build a transmission line on private property.

You are receiving the enclosed formal notice because one or more of the routes for a proposed transmission line may require an easement or other property interest across your property, or the centerline of the proposed project may come within 300 feet of a house or other habitable structure on your property. This distance is expanded to 500 feet if the proposed line is greater than 230 kilovolts (kV). For this reason, your property is considered **directly affected land.** This brochure is being included as part of the formal notice process.

If you have questions about the proposed routes for a transmission line, you may contact the applicant. The applicant also has a more detailed map of the proposed routes for the transmission line and nearby habitable structures. The applicant may help you understand the routing of the project and the application approval process in a transmission line case but cannot provide legal advice or represent you. ***The applicant cannot predict which route may or may not be approved by the PUC. The PUC decides which route to use for the transmission line, and the applicant is not obligated to keep you informed of the PUC's proceedings. The only way to fully participate in the PUC's decision on where to locate the transmission line is to intervene, which is discussed below.***

The PUC is sensitive to the impact that transmission lines have on private property. At the same time, transmission lines deliver electricity to millions of homes and businesses in Texas, and new lines are sometimes needed so that customers can obtain reliable, economical power.

The PUC's job is to decide whether a transmission line application should be approved and on which route the line should be constructed. The PUC values input from landowners and encourages you to participate in this process by intervening in the docket.

PUC Transmission Line Case

Texas law provides that most utilities must file an application with the PUC to obtain or amend a Certificate of Convenience and Necessity (CCN) in order to build a new transmission line in Texas. The law requires the PUC to consider a number of factors in deciding whether to approve a proposed new transmission line.

The PUC may approve an application to obtain or amend a CCN for a transmission line after considering the following factors:
- Adequacy of existing service;
- Need for additional service;
- The effect of approving the application on the applicant and any utility serving the proximate area;
- Whether the route utilizes existing compatible rights-of-way, including the use of vacant positions on existing multiple-circuit transmission lines;
- Whether the route parallels existing compatible rights-of-way;
- Whether the route parallels property lines or other natural or cultural features;
- Whether the route conforms with the policy of prudent avoidance (which is defined as the limiting of exposures to electric and magnetic fields that can be avoided with reasonable investments of money and effort); and
- Other factors such as community values, recreational and park areas, historical and aesthetic values, environmental integrity, and the probable improvement of service or lowering of cost to consumers in the area.

If the PUC decides an application should be approved, it will grant to the applicant a CCN or CCN amendment to allow for the construction and operation of the new transmission line.

Application to Obtain or Amend a CCN:

An application to obtain or amend a CCN describes the proposed line and includes a statement from the applicant describing the need for the line and the impact of building it. In addition to the routes proposed by the applicant in its application, the possibility exists that additional routes may be developed, during the course of a CCN case, that could affect property in a different manner than the original routes proposed by the applicant.

The PUC conducts a case to evaluate the impact of the proposed line and to decide which route should be approved. Landowners who would be affected by a new line can:

- informally file a protest, or
- formally participate in the case as an intervenor.

Filing a Protest (informal comments):

If you do not wish to intervene and participate in a hearing in a CCN case, you may file **comments.** An individual or business or a group who files only comments for or against any aspect of the transmission line application is considered a "protestor."

Protestors make a written or verbal statement in support of or in opposition to the utility's application and give information to the PUC staff that they believe supports their position.

Protestors are ***not*** parties to the case, however, and *do **not** have the right to*:

- Obtain facts about the case from other parties;
- Receive notice of a hearing, or copies of testimony and other documents that are filed in the case;
- Receive notice of the time and place for negotiations;
- File testimony and/or cross-examine witnesses;
- Submit evidence at the hearing; or
- Appeal P.U.C. decisions to the courts.

If you want to make comments, you may either send written comments stating your position, or you may make a statement on the first day of the hearing. If you have not intervened, however, you will not be able to participate as a party in the hearing. Only parties may submit evidence and ***the PUC must base its decision on the evidence.***

Intervening in a Case:

To become an intervenor, you must file a statement with the PUC, no later than the date specified in the notice letter sent to you with this brochure, requesting intervenor status (also referred to as a party). This statement should describe how the proposed transmission line would affect your property. Typically, intervention is granted only to directly affected landowners. However, any landowner may request to intervene and obtain a ruling on his or her specific fact situation and concerns. A sample form for intervention and the filing address are attached to this brochure, and may be used to make your filing. A letter requesting intervention may also be used in lieu of the sample form for intervention.

If you decide to intervene and become a party in a case, you will be required to follow certain procedural rules:

- You are required to timely respond to requests for information from other parties who seek information.
- If you file testimony, you must appear at a hearing to be cross-examined.
- If you file testimony or any letters or other documents in the case, you must send copies of the documents to every party in the case and you must file multiple copies with the PUC.
- If you intend to participate at the hearing and you do not file testimony, you must at least file a statement of position, which is a document that describes your position in the case.
- Failure to comply with these procedural rules may serve as grounds for you to be dismissed as an intervenor in the case.
- If you wish to participate in the proceedings it is very important to attend any prehearing conferences.

Intervenors may represent themselves or have an attorney to represent them in a CCN case. If you intervene in a case, you may want an attorney to help you understand the PUC's procedures and the laws and rules that the PUC applies in deciding whether to approve a transmission line. The PUC encourages landowners to intervene and become parties.

Stages of a CCN Case:

If there are persons who intervene in the case and oppose the approval of the line, the PUC may refer the case to an administrative law judge (ALJ) at the State Office of Administrative Hearings (SOAH) to conduct a hearing, or the Commission may elect to conduct a hearing itself. The hearing is a formal proceeding, much like a trial, in which testimony is presented. In the event the case is referred to SOAH, the ALJ makes a recommendation to the PUC on whether the application should be approved and where and how the line should be routed.

There are several stages of a CCN case:

- The ALJ holds a prehearing conference (usually in Austin) to set a schedule for the case.
- Parties to the case have the opportunity to conduct discovery; that is, obtain facts about the case from other parties.
- A hearing is held (usually in Austin), and parties have an opportunity to cross-examine the witnesses.
- Parties file written testimony before the date of the hearing. Parties that do not file written testimony or statements of position by the deadline established by the ALJ may not be allowed to participate in the hearing on the merits.
- Parties may file written briefs concerning the evidence presented at the hearing, but are not required to do so.
- In deciding where to locate the transmission line and other issues presented by the application, the ALJ and Commission rely on factual information submitted as evidence at the hearing by the parties in the case. In order to submit factual information as evidence (other than through cross-examination of other parties' witnesses), a party must have intervened in the docket and filed written testimony on or before the deadline set by the ALJ.
- The ALJ makes a recommendation, called a **proposal for decision**, to the Commission regarding the case. Parties who disagree with the ALJ's recommendation may file exceptions.
- The Commissioners discuss the case and decide whether to approve the application. The Commission may approve the ALJ's recommendation, approve it with specified changes, send the case back to the ALJ for further consideration, or deny the application. The written decision rendered by the Commission is called a **final order**. Parties who believe that the Commission's decision is in error may file motions for rehearing, asking the Commission to reconsider the decision.
- After the Commission rule on the motion for rehearing, parties have the right to appeal the decision to district court in Travis County.
-

Right to Use Private Property

The Commission is responsible for deciding whether to approve a CCN application for a proposed transmission line. If a transmission line route is approved that impacts your property, the electric utility must obtain the right from you to enter your property and to build, operate, and maintain the transmission line. This right is typically called an easement.

Utilities may buy easements through a negotiated agreement, but they also have the power of eminent domain (condemnation) under Texas law. Local courts, not the PUC, decide issues concerning easements for rights-of-way. The PUC does not determine the value of property.

The PUC final order in a transmission case normally requires a utility to take certain steps to minimize the impact of the new transmission line on landowners' property and on the environment. For example, the order normally requires steps to minimize the possibility of erosion during construction and maintenance activities.

HOW TO OBTAIN MORE INFORMATION

The PUC's online filings interchange on the PUC website provides free access to documents that are filed with the Commission in Central Records. The docket number, also called a control number on the PUC website, of a case is a key piece of information used in locating documents in the case. You may access the Interchange by visiting the PUC's website home page at www.puc.state.tx.us and navigate the website as follows:

- Select "Filings."
- Select "Filings Search."
- Select "Filings Search."
- Enter 5-digit Control (Docket) Number. *No other information is necessary.*
- Select "Search." *All of the filings in the docket will appear in order of date filed.*
- Scroll down to select desired filing.
- Click on a blue "Item" number at left.
- Click on a "Download" icon at left.

Documents may also be purchased from and filed in Central Records. For more information on how to purchase or file documents, call Central Records at the PUC at 512-936-7180.

PUC Substantive Rule 25.101, Certification Criteria, addresses transmission line CCNs and is available on the PUC's website, or you may obtain copies of PUC rules from Central Records.

Always include the docket number on all filings with the PUC. You can find the docket number on the enclosed formal notice. Send documents to the PUC at the following address.

Public Utility Commission of Texas
Central Records
Attn: Filing Clerk
1701 N. Congress Avenue
P.O. Box 13326
Austin, TX 78711-3326

The information contained within this brochure is not intended to provide a comprehensive guide to landowner rights and responsibilities in transmission line cases at the PUC. This brochure should neither be regarded as legal advice nor should it be a substitute for the PUC's rules. However, if you have questions about the process in transmission line cases, you may call the PUC's Legal Division at 512-936-7261. The PUC's Legal Division may help you understand the process in a transmission line case but cannot provide legal advice or represent you in a case. You may choose to hire an attorney to decide whether to intervene in a transmission line case, and an attorney may represent you if you choose to intervene.

Communicating with Decision-Makers

Do not contact the ALJ or the Commissioners by telephone or email. They are not allowed to discuss pending cases with you. They may make their recommendations and decisions only by relying on the evidence, written pleadings, and arguments that are presented in the case.

Request to Intervene in PUC Docket No. _____

The following information must be submitted by the person requesting to intervene in this proceeding. This completed form will be provided to all parties in this docket. **If you DO NOT want to be an intervenor, but still want to file comments, please complete the "Comments" page.**

Mail this completed form and 10 copies to:

Public Utility Commission of Texas
Central Records
Attn: Filing Clerk
1701 N. Congress Ave.
P.O. Box 13326
Austin, TX 78711-3326

First Name: _____ Last Name: _____

Phone Number: _____ Fax Number: _____

Address, City, State: _____

I am requesting to intervene in this proceeding. As an INTERVENOR, I understand the following:

- I am a party to the case;
- I am required to respond to all discovery requests from other parties in the case;
- If I file testimony, I may be cross-examined in the hearing;
- If I file any documents in the case, I will have to provide a copy of that document to every other party in the case; and
- I acknowledge that I am bound by the Procedural Rules of the Public Utility Commission of Texas (PUC) and the State Office of Administrative Hearings (SOAH).

Please check one of the following:

☐ I own property with a habitable structure located near one or more of the utility's proposed routes for a transmission line.

☐ One or more of the utility's proposed routes would cross my property.

☐ Other. Please describe and provide comments. You may attach a separate page, if necessary. _____

_____

_____

_____

_____

Signature of person requesting intervention:

_____ Date: _____

Comments in Docket No. _____

If you want to be a PROTESTOR only, please complete this form. Although public comments are not treated as evidence, they help inform the PUC and its staff of the public concerns and identify issues to be explored. The PUC welcomes such participation in its proceedings.

Mail this completed form and 10 copies to:

Public Utility Commission of Texas
Central Records
Attn: Filing Clerk
1701 N. Congress Ave.
P.O. Box 13326
Austin, TX 78711-3326

First Name: _____ Last Name: _____

Phone Number: _____ Fax Number: _____

Address, City, State: _____

I am NOT requesting to intervene in this proceeding. As a PROTESTOR, I understand the following:

- I am NOT a party to this case;
- My comments are not considered evidence in this case; and
- I have no further obligation to participate in the proceeding.

Please check one of the following:

☐ I own property with a habitable structure located near one or more of the utility's proposed routes for a transmission line.

☐ One or more of the utility's proposed routes would cross my property.

☐ Other. Please describe and provide comments. You may attach a separate page, if necessary. _____

☐ _____

☐ _____

_____

_____

Signature of person submitting comments:

_____ Date: _____

THE STATE OF TEXAS
LANDOWNER'S BILL OF RIGHTS

PREPARED BY THE

OFFICE OF THE
ATTORNEY GENERAL OF TEXAS

STATE OF TEXAS LANDOWNER'S BILL OF RIGHTS

This Landowner's Bill of Rights applies to any attempt by the government or a private entity to take your property. The contents of this Bill of Rights are prescribed by the Texas Legislature in Texas Government Code Sec. 402.031 and Chapter 21 of the Texas Property Code.

1. You are entitled to receive adequate compensation if your property is taken for a public use.
2. Your property can only be taken for a public use.
3. Your property can only be taken by a governmental entity or private entity authorized by law to do so.
4. The entity that wants to take your property must notify you that it wants to take your property.
5. The entity proposing to take your property must provide you with a written appraisal from a certified appraiser detailing the adequate compensation you are owed for your property.
6. The entity proposing to take your property must make a bona fide offer to buy the property before it files a lawsuit to condemn the property – which means the condemning entity must make a good faith offer that conforms with Chapter 21 of the Texas Property Code.
7. You may hire an appraiser or other professional to determine the value of your property or to assist you in any condemnation proceeding.
8. You may hire an attorney to negotiate with the condemning entity and to represent you in any legal proceedings involving the condemnation.
9. Before your property is condemned, you are entitled to a hearing before a court appointed panel that includes three special commissioners. The special commissioners must determine the amount of compensation the condemning entity owes for the taking of your property. The commissioners must also determine what compensation, if any, you are entitled to receive for any reduction in value of your remaining property.
10. If you are unsatisfied with the compensation awarded by the special commissioners, or if you question whether the taking of your property was proper, you have the right to a trial by a judge or jury. If you are dissatisfied with the trial court's judgment, you may appeal that decision.

CONDEMNATION PROCEDURE

Eminent domain is the legal authority that certain entities are granted that allows those entities to take private property for a public use. Private property can include land and certain improvements that are on that property.

Private property may only be taken by a governmental entity or private entity that is authorized by law to do so. Your property may be taken only for a public purpose. That means it can only be taken for a purpose or use that serves the general public. Texas law prohibits condemnation authorities from taking your property to enhance tax revenues or foster economic development.

Your property cannot be taken without adequate compensation. Adequate compensation includes the market value of the property being taken. It may also include certain damages if your remaining property's market value is diminished by the acquisition itself or by the way the condemning entity will use the property.

HOW THE TAKING PROCESS BEGINS

The taking of private property by eminent domain must follow certain procedures. First, the entity that wants to condemn your property must provide you a copy of this Landowner's Bill of Rights before - or at the same time - the entity first represents to you that it possesses eminent domain authority.

Second, if it has not been previously provided, the condemning entity must send this Landowner's Bill of Rights to the last known address of the person who is listed as the property owner on the most recent tax roll. This requirement stipulates that the Landowner's Bill of Rights must be provided to the property owner at least seven days before the entity makes a final offer to acquire the property.

Third, the condemning entity must make a bona fide offer to purchase the property. The requirements for a bona fide offer are contained in Chapter 21 of the Texas Property Code. At the time a purchase offer is made, the condemning entity must disclose any appraisal reports it produced or acquired that relate specifically to the property and were prepared in the ten years preceding the date of the purchase offer. You have the right to discuss the offer with others and to either accept or reject the offer made by the condemning entity.

CONDEMNATION PROCEEDINGS

If you and the condemning entity do not agree on the value of your property, the entity may begin condemnation proceedings. Condemnation is the legal process that eligible entities utilize to take private property. It begins with a condemning entity filing a claim for your property in court. If you live in a county where part of the property being condemned is located, the claim must be filed in that county. Otherwise, the condemnation claim can be filed in any county where at least part of the property being condemned is located. The claim must describe the property being condemned, state with specificity the public use, state the name of the landowner, state that the landowner and the condemning entity were unable to agree on the value of the property, state that the condemning entity provided the landowner with the Landowner's Bill of Rights, and state that the condemning entity made a bona fide offer to acquire the property from the property owner voluntarily.

SPECIAL COMMISSIONERS' HEARING

After the condemning entity files a condemnation claim in court, the judge will appoint three local landowners to serve as special commissioners. The judge will give you a reasonable period to strike one of the special commissioners. If a commissioner is struck, the judge will appoint a replacement. These special commissioners must live in the county where the condemnation proceeding is filed, and they must take an oath to assess the amount of adequate compensation fairly, impartially, and according to the law. The special commissioners are not legally authorized to decide whether the condemnation is necessary or if the public use is proper. Their role is limited to assessing adequate compensation for you. After being appointed, the special commissioners must schedule a hearing at the earliest practical time and place. The special commissioners are also required to give you written notice of the condemnation hearing.

You are required to provide the condemning entity any appraisal reports that were used to determine your claim about adequate compensation for the condemned property. Under a new law enacted in 2011, landowners' appraisal reports must be provided to the condemning entity either ten days after the landowner receives the report or three business days before the special commissioners' hearing - whichever is earlier. You may hire an appraiser or real estate professional to help you determine the value of your private property. Additionally, you can hire an attorney to represent you during condemnation proceedings.

At the condemnation hearing, the special commissioners will consider your evidence on the value of your condemned property, the damages to remaining property, any value added to the remaining property as a result of the condemnation, and the condemning entity's proposed use of your condemned property.

SPECIAL COMMISSIONERS' AWARD

After hearing evidence from all interested parties, the special commissioners will determine the amount of money that you should be awarded to adequately compensate you for your property. The special commissioners' decision is significant to you not only because it determines the amount that qualifies as adequate compensation, but also because it impacts who pays for the cost of the condemnation proceedings. Under the Texas Property Code, if the special commissioners' award is less than or equal to the amount the condemning entity offered to pay before the proceedings began, then you may be financially responsible for the cost of the condemnation proceedings. However, if the special commissioners' award is more than the condemning entity offered to pay before the proceedings began, then the condemning entity will be responsible for the costs associated with the proceedings.

The special commissioners are required to provide the court that appointed them a written decision. That decision is called the "Award." The Award must be filed with the court and the court must send written notice of the Award to all parties. After the Award is filed, the condemning entity may take possession of the property being condemned, even if either party appeals the Award of the special commissioners. To take possession of the property, the condemning entity must either pay the amount of the Award or deposit the amount of the Award into the court's registry. You have the right to withdraw funds that are deposited into the registry of the court.

OBJECTION TO THE SPECIAL COMMISSIONERS' AWARD

If either the landowner or the condemning entity is dissatisfied with the amount of the Award, either party can formally object to the Award. In order to successfully make this valuation objection, it must be filed in writing with the court. If neither party timely objects to the special commissioners' Award, the court will adopt the Award as the final judgment of the court.

If a party timely objects to the special commissioners' Award, the court will hear the case in the same manner that other civil cases are heard. Landowners who object to the Award and ask the court to hear the matter have the right to a trial and can elect whether to have the case decided by a judge or jury. The allocation of any trial costs is decided in the same manner that costs are allocated with the special commissioners' Award. After trial, either party may appeal any judgment entered by the court.

DISMISSAL OF THE CONDEMNATION ACTION

A condemning entity may file a motion to dismiss the condemnation proceeding if it decides it no longer needs your condemned property. If the court grants the motion to dismiss, the case is over and you are entitled to recover reasonable and necessary fees for attorneys, appraisers, photographers, and for other expenses incurred to the date of the hearing on the motion to dismiss.

If you wish to challenge the condemning entity's authority to take your property, you can lodge that challenge by filing a motion to dismiss the condemnation proceeding. Such a motion to dismiss would allege that the condemning entity did not have the right to condemn your property. For example, a landowner could challenge the condemning entity's claim that it seeks to take the property for a public use. If the court grants the landowner's motion, the court may award the landowner reasonable and necessary fees for attorneys, appraisers, photographers, and for other expenses incurred to the date of the hearing or judgment.

RELOCATION COSTS

If you are displaced from your residence or place of business, you may be entitled to reimbursement for reasonable expenses incurred while moving personal property from the residence or relocating the business to a new site. However, during condemnation proceedings, reimbursement for relocation costs may not be available if those costs are separately recoverable under another law. Texas law limits the total amount of available relocation costs to the market value of the property being moved. Further, the law provides that moving costs are limited to the amount that a move would cost if it were within 50 miles.

RECLAMATION OPTIONS

If private property was condemned by a governmental entity, and the public use for which the property was acquired is canceled before that property is used for that public purpose, no actual progress is made toward the public use within ten years or the property becomes unnecessary for public use within ten years, landowners may have the right to repurchase the property for the price paid to the owner by the entity at the time the entity acquired the property through eminent domain.

DISCLAIMER

The information in this statement is intended to be a summary of the applicable portions of Texas state law as required by HB 1495, enacted by the 80th Texas Legislature, Regular Session. This statement is not legal advice and is not a substitute for legal counsel.

ADDITIONAL RESOURCES

Further information regarding the procedures, timelines and requirements outlined in this document can be found in Chapter 21 of the Texas Property Code.

Wheeler County to Coburn Creek
Primary Alternative Routes Directly Affected Ownership

TRACT NUMBER	SEGMENT(S)	HABITABLE STRUCTURE MAP ID	ACRE	PORTION	SECTION	BLOCK	SURVEY	ABSTRACT	COUNTY	LANDOWNER	ADDRESS	CITY	STATE	ZIP
1	A		630	ALL	1		J. Poitevent	A-403	Wheeler	Elmer & Dorothy Honath	7802 Oakview Dr.	Amarillo	TX	79119
2	C		518.28	W/2, NE/4 & Part SE/4	2		J. Poitevent	A-8376, A-8676	Wheeler	Life Estate of B.F. Westmoreland Jr.	7594 US Hwy 83	Wheeler	TX	79096
3	C		211.28	E/2 Part	14	L	JM Lindsey	A-455	Wheeler	Joe C. Loter	5018 Moultrie Dr.	Corpus Christi	TX	78413
4	C		90.03	E/2 Part	14	L	JM Lindsey	A-455	Wheeler	Cledith Burrell	PO Box 426	Wheeler	TX	79096
5	C, D, G		321	E/2	6		IRR	A-8511, A-8570,	Wheeler	Danny Hardcastle	7785 CR 15	Wheeler	TX	79096
6	D		115	NE/4 Part & S/2 SW/4	3		IRR	A-397	Wheeler	Hampton Farms Inc.	7835 CR 17	Wheeler	TX	79096
7	D		160	SE/4 *(1/2 UNDIVIED INTEREST)*	3		IRR	A-397	Wheeler	Gary Brotherton	9940 SW 35TH St	Yukon	OK	73099
7	D		160	SE/4 *(1/8 UNDIVIDED INTEREST)*	3		IRR	A-397	Wheeler	Larry Hampton	7825 CR 17	Wheeler	TX	79096
7	D		160	SE/4 *(1/8 UNDIVIDED INTEREST)*	3		IRR	A-397	Wheeler	Mark & Melissa Hampton	7905 CR 17	Wheeler	TX	79096
7	D		160	SE/4 *(1/8 UNDIVIDED INTEREST)*	3		IRR	A-397	Wheeler	Richard Hampton	PO Box 254	Wheeler	TX	79096
7	D		160	SE/4 *(1/8 UNDIVIDED INTEREST)*	3		IRR	A-397	Wheeler	Steve & Nancy Hampton	7835 CR 17	Wheeler	TX	79096
8	D,G		624.18	ALL	4		IRR	A-8374	Wheeler	Methodist Home	1111 Herring Ave	Waco	TX	76708
9	G		232	NW/4 & NE/4 Part	13	L	JM Lindsey	A-454	Wheeler	Danny & Gary Hardcastle	7785 CR 15	Wheeler	TX	79096
10	F		320	E/2	3		J. Poitevent	A-404	Wheeler	Karl & Kimberly Sosebee	120 Blommaert	Borger	TX	79007
11	B, C, F		320	W/2	3		J. Poitevent	A-404	Wheeler	Hardcastle Farms	7785 CR 15	Wheeler	TX	79096
12	E		160	E/2 E/2	4		J. Poitevent	A-8319	Wheeler	Charles R. & Betty M. Riley	4702 Mesa Circle	Amarillo	TX	79109
13	A,B, E		480	W/2 & W/2 E/2	4		J. Poitevent	A-8319	Wheeler	BC Buckingham Properties, LP	16746 FM 2697	Wheeler	TX	79096
14	E		640	ALL	5		J. Poitevent	A-402	Wheeler	Sarah K. Walker	701 S. Houston	Shamrock	TX	79079
15	F		401	NE/4, SW/4 & S/2 NW/4	6		J. Poitevent	8474, A-8649, A-8	Wheeler	Donna Sosebee	PO Box 236	Wheeler	TX	79096
16	F		160	SE/4	6		J. Poitevent	A-516	Wheeler	Steve & Nancy Hampton	7835 CR 17	Wheeler	TX	79096
17	G		475	E/2 & SW/4 (less 5 ac)	12	L	JM Lindsey	A-453	Wheeler	Ricky & Tina Bond	PO Box 1280	Wheeler	TX	79096
18	G		160	NW/4	12	L	JM Lindsey	A-453	Wheeler	C. B. Brotherton Jr. %Gary Brotherton	9940 SW 35TH St	Yukon	TX	79096
19	D		640	ALL	1		IRR	A-396	Wheeler	Hyland Weaver	PO Box 1169	Wheeler	TX	79096
20	V		320	N/2	1		H&GN	A-392	Wheeler	Meek Elva Hill Estate %Melvin R. Coate	PO Box 54	Wheeler	TX	79096
21	D, J, N, V		320	S/2	1		H&GN	A-392	Wheeler	1906 Holding Ltd	PO Box 613	Wheeler	TX	79096
22	J		640	ALL	2		H&GN	A-8375	Wheeler	Methodist Home	1111 Herring Ave	Waco	TX	76708
23	G, I, J, M		480	N/2 & SE/4	11	L	JM Lindsey	A-466	Wheeler	BC Buckingham Properties, LP	16746 FM 2697	Wheeler	TX	79096
24	I		160	SW/4	11	L	JM Lindsey	A-466	Wheeler	Anthony & Frances Dickey	8616 FM 48	Mobeetie	TX	79061
25	E, F, H, I, K, L		640	ALL	15	L	JM Lindsey	A-456	Wheeler	Johnny & Donna Velasquez	PO Box 767	Wheeler	TX	79096
26	E		320	N/2	23	L	JM Lindsey	A-473	Wheeler	Nona Ann Faulkner	109 Rodessa Trail	White Oak	TX	75693
27	E		160	SW/4 *(2/3 UNDIVIDED INTEREST)*	23	L	JM Lindsey	A-473	Wheeler	Matthew & Michelle Moore	7394 FM 592	Shamrock	TX	79079
27	E		160	SW/4 *(1/3 UNDIVIDED INTEREST)*	23	L	JM Lindsey	A-473	Wheeler	Julie Brooke	451 River Chase Way	New Braunfels	TX	78132
28	K, L, O, P, R, S		640	ALL	16	L	JM Lindsey	A-457	Wheeler	Donna Velasquez	PO Box 767	Wheeler	TX	76096
29	M, P, Q, T		290	N/2	10	L	JM Lindsey	A-465	Wheeler	Garland & Rachel Moore	6971 FM 592	Shamrock	TX	79079
30	P		320	S/2	10	L	JM Lindsey	A-465	Wheeler	BC Buckingham Properties, LP	16746 FM 2697	Wheeler	TX	79096
31	T, U		320	E/2	1	L	JM Lindsey	A-458	Wheeler	Garland & Rachel Moore	6971 FM 592	Shamrock	TX	79079
32	T, Q		320	W/2	1	L	JM Lindsey	A-458	Wheeler	1906 Holding Ltd	PO Box 613	Wheeler	TX	79096
33	V		80	E/2 NE/4	2	C# 5/720	H&GN	A-8384	Wheeler	Duwane & Chardell Skipper	PO Box 354	Booker	TX	79005
34	V		234	W/2 NE/4 & NW/4	2	C# 5/720	H&GN	A-8384	Wheeler	Teddy P. & Ruth Tucker	PO Box 1211	Wheeler	TX	79096
35	V		6	NW/4	2	C# 5/720	H&GN	A-8384	Wheeler	Meek Elva Hill Estate %Melvin R. Coate	PO Box 54	Wheeler	TX	79096
36	U, V		320	S/2	2	C# 5/720	H&GN	A-8774	Wheeler	Joann Simmons	PO Box 100	Wheeler	TX	79096
37	V		71	E/2 NE/4	1	C# 5/720	H&GN	A-391	Wheeler	Jerry Hefley	PO Box 765	Wheeler	TX	79096
38	V		80	W/2 NE/4	1	C# 5/720	H&GN	A-391	Wheeler	Edgar L. & Doris J. Tipton	20250 E. 1130 Rd	Elk City	OK	73644
39	V		41.86	NW/4 Part	1	C# 5/720	H&GN	A-391	Wheeler	Glenda D. Weatherly	PO Box 1245	Wheeler	TX	79096
40	V		50	NW/4	1	C# 5/720	H&GN	A-391	Wheeler	James D. & Natalie Thomas	PO Box 213	Wheeler	TX	79096
41	U		160	SW/4	1	C# 5/720	H&GN	A-391	Wheeler	Joann Simmons	PO Box 100	Wheeler	TX	79096
42	U, BB, CC		160	NE/4 *(1/4 UNDIVIDED INTEREST)*	2	L	JM Lindsey	A-459	Wheeler	JR Holton Family Ltd	PO Box 667	Perryton	TX	79070
42	U, BB, CC		160	NE/4 *(1/4 UNDIVIDED INTEREST)*	2	L	JM Lindsey	A-459	Wheeler	SW Holton Family Ltd	PO Box 667	Perryton	TX	79070
42	U, BB, CC		160	NE/4 *(1/4 UNDIVIDED INTEREST)*	2	L	JM Lindsey	A-459	Wheeler	James A. & Anni K. Smith Trust	256 Jade Dr	Smiths Grove	KY	42171
42	U, BB, CC		160	NE/4 *(1/4 UNDIVIDED INTEREST)*	2	L	JM Lindsey	A-459	Wheeler	John Mark Smith	4 Ryans Point Dr	San Antonio	TX	78248
43	T, U, BB		469	S/2 & NW/4	2	L	JM Lindsey	A-459	Wheeler	Joann Simmons	PO Box 100	Wheeler	TX	79096
44	T		480	W/2 & NE/4	9	L	JM Lindsey	A-475	Wheeler	Garland & Rachel Moore	6971 FM 592	Shamrock	TX	79079
45	R, S, W, Y, X		184.6	N/2	17	L	JM Lindsey	A-467	Wheeler	Oleta L. Ellis Living Trust / Oleta L. Ellis Trustee	9304 Perry Ave.	Amarillo	TX	79119
46	X, Y		137.4	N/2	17	L	JM Lindsey	A-467	Wheeler	Odessa L. C. Mooney Revocable Trust	PO Box 36	Wheeler	TX	79096

Wheeler County to Coburn Creek
Primary Alternative Routes Directly Affected Ownership

TRACT NUMBER	SEGMENT(S)	HABITABLE STRUCTURE MAP ID	ACRE	PORTION	SECTION	BLOCK	SURVEY	ABSTRACT	COUNTY	LANDOWNER	ADDRESS	CITY	STATE	ZIP
47	R		155	S/2 *(1/2 UNDIVIDED INTEREST)*	17	L	JM Lindsey	A-467	Wheeler	Greg & Shari J. Lake	14501 Elena	Amarillo	TX	79119
47	R		155	S/2 *(1/2 UNDIVIDED INTEREST)*	17	L	JM Lindsey	A-467	Wheeler	Scott & Donae Smith	30001 S. US Hwy 87	Canyon	TX	79015
48	X, Y, Z		125.3	N/2	18	L	JM Lindsey	A-468	Wheeler	Odessa L. C. Mooney Revocable Trust	PO Box 36	Wheeler	TX	79096
49	EE		120	NE/4 Part	8	L	JM Lindsey	A-474	Wheeler	Orr Family Revocable Trust %Wayne & Betty Orr, Trustees	9254 CR 3460	Stratford	OK	74872
50	T, AA, BB, EE		160	out of SE/4 & NW/4(1/2 UNDIVIDED INTEREST)	8	L	JM Lindsey	A-474	Wheeler	Kimberly A. Wheeler	16793 FM 2697	Wheeler	TX	79096
50	T, AA, BB, EE		160	out of SE/4 & NW/4(1/2 UNDIVIDED INTEREST)	8	L	JM Lindsey	A-474	Wheeler	Wayne E. Wheeler	PO Box 312	Sayre	OK	73662
51	Z, AA, EE		160.08	SW/4	8	L	JM Lindsey	A-474	Wheeler	Wayne E. Wheeler	PO Box 312	Sayre	OK	73662
52	EE, FF, GG, JJ		160	NE/4	3	L	JM Lindsey	A-460	Wheeler	Cledith Burrell	PO Box 426	Wheeler	TX	79096
53	BB, CC, DD, EE, FF		320	NW/4 & SE/4	3	L	JM Lindsey	A-460	Wheeler	Moore Farms %Nancy Schilling	PO Box 436	Follett	TX	79034
54	BB		160	SW/4 (1/3 UNDIVIDED INTEREST)	3	L	JM Lindsey	A-460	Wheeler	Thomas B. Creager	63370 E. Desert Crest Dr	Tucson	AZ	85739
54	BB		160	SW/4 (1/3 UNDIVIDED INTEREST)	3	L	JM Lindsey	A-460	Wheeler	Vina D. Creager	PO Box 1876	Pinetop	AZ	85935
54	BB		160	SW/4 (1/3 UNDIVIDED INTEREST)	3	L	JM Lindsey	A-460	Wheeler	Virginia L. Scott	PO Box 57	Lipscomb	TX	79056
55	GG, HH, II, JJ		320	E/2	4		AB&M	A-8484	Wheeler	Bert & Barbara Bass Revocable Living Trust	401 N Houston St	Shamrock	TX	79079
56	V		156.9	NW/4	4		AB&M	A-8195	Wheeler	Nancy Schilling, etal.	PO Box 436	Follett	TX	79034
57	DD		160	SW/4	4		AB&M	A-8325	Wheeler	Carolyn Hefley	PO Box 765	Wheeler	TX	79096
58	JJ		154	NW/4 (Less 6 ac HWY ROW)	3		AB&M	A-2	Wheeler	Matthew & Michelle Moore	7394 FM 592	Wheeler	TX	79096
59	JJ		160	SW/4 *(1/2 UNDIVIDED INTEREST)*	3		AB&M	A-2	Wheeler	Bobby D. Calcote	PO Box 1225	Wheeler	TX	79096
59	JJ		160	SW/4 *(1/2 UNDIVIDED INTEREST)*	3		AB&M	A-2	Wheeler	Donnie L. O'Gorman	7900 SW 81ST Ave, TLR 91	Amarillo	TX	79119
60	JJ		217	W/2	4	L	JM Lindsey	A-461	Wheeler	Cledith Burrell	PO Box 426	Wheeler	TX	79096
61	G	1	8	8 ac N/2	13	L	JM Lindsey	A-454	Wheeler	Westar Transmission Co & Ken Andrews Co	1900 Dalrock	Rowlett	TX	75088
62	L	2	Personal Property		11	L	JM Lindsey	A-466	Wheeler	Byron K. Hughes	16221 CR O	Wheeler	TX	79096

Xcel Energy℠

SOUTHWESTERN PUBLIC SERVICE COMPANY

Siting and Land Rights

P.O. Box 1261
Amarillo, TX 79105-1261
Telephone: **806-378-2436**
Facsimile: 806-378-2724

May 19, 2014

Mr. Stan McClendon, General Manager
Greenbelt Electric Cooperative, Inc.
P. O. Box 948
Wellington, TX 79095

Dear Mr. McClendon:

Southwestern Public Service Company (SPS), a subsidiary of Xcel Energy Inc., has filed an application with the Public Utility Commission of Texas (Commission) to amend its Certificate of Convenience and Necessity in order to construct and operate a new 115-kilovolt (kV) transmission line within Wheeler County, Texas (*Application of Southwestern Public Service Company to Amend a Certificate of Convenience and Necessity (CCN) for a Proposed 115-kV Transmission Line within Wheeler County, Texas*) – Docket No. 42388. SPS is requesting the approval of the Commission for this project.

SPS is proposing to construct and operate a single circuit, 115-kilovolt (kV) electric transmission line between the existing Wheeler County Substation and a new Coburn Creek Substation both located in Wheeler County, Texas. The proposed transmission line is needed for reliability and to address load growth in the eastern Texas Panhandle.

SPS has determined that increased distribution capacity is necessary in the Wheeler, Texas area. This proposed 115-kV transmission line is needed to provide a source for the new 28 MVA Coburn Creek Substation. This new substation will address the distribution capacity need that was identified by SPS distribution system planning and allow SPS to meet the increased distribution demand in the area.

The Project will involve the construction of a new transmission line which will begin at the existing Wheeler County Substation located in Wheeler County, approximately 5.2 miles south-southeast of the city of Wheeler, and will extend generally northeast until it reaches the proposed Coburn Creek Substation located along State Highway 152, approximately 7.5 miles east of the city of Wheeler. The transmission line will be constructed using single-circuit, self-supporting steel monopole structures. The proposed transmission line will be constructed on new right-of-way (ROW) with a proposed permanent easement of 70 feet (wider in exceptional circumstances) and a proposed temporary easement of an additional 30 feet during construction. The proposed transmission line is presented with nine alternative routes consisting of a combined 36 segments and is estimated to be 10.8-11.8 miles depending on which route is selected.

Depending on the route chosen, the total cost of the project in Texas, including the transmission line and substation costs, is estimated to be between approximately $12.6 million and $13.2 million.

Enclosed are a copy of a written description of the segments to be used for the alternative routes and a map of the proposed project. ***All routes and route segments included in this notice are available for selection and approval by the Public Utility Commission of Texas.*** A copy of the complete application, which includes other maps pertinent to the project, is available for review at SPS's offices at Chase Tower, 600 S. Tyler Street, Suite 2700, Amarillo, Texas, 79101. Information about the proposed project is also accessible on Xcel Energy's website *Power for the Plains* at http://www.powerfortheplains.com.

Persons who wish to intervene in the docket or comment on the applicant's application should mail the original and 10 copies of their requests to intervene or their comments to:

Public Utility Commission of Texas
Central Records
Attn: Filing Clerk
1701 N. Congress Avenue
P. O. Box 13326
Austin, Texas 78711-3326

The deadline for intervention in the proceeding is July 3, 2014, and a letter requesting intervention should be received by the Commission by that date.

The PUC has a brochure titled "Landowners and Transmission Line Cases at the PUC." Copies of the brochure are available from Lance Kenedy at 806-378-2435 or James Bagley at 806-378-2868 or may be downloaded from the PUC's website at www.puc.state.tx.us. To obtain additional information about this docket, you may contact the PUC's Customer Assistance Hotline at 512-936-7120 or 888-782-8477. Hearing- and speech-impaired individuals with text telephones (TTY) may contact the PUC's Customer Assistance Hotline at 512-936-7136 or toll free at 800-735-2989. In addition to the intervention deadline, other important deadlines may already exist that affect your participation in this docket. You should review the orders and other filings already made in the docket.

If you have any questions or need additional information, please call Lance Kenedy or James Bagley.

Sincerely,

Sean L. Frederiksen, Manager
Siting and Land Rights

Enclosures

Xcel Energy℠
SOUTHWESTERN PUBLIC SERVICE COMPANY

Siting and Land Rights

P.O. Box 1261
Amarillo, TX 79105-1261
Telephone: **806-378-2436**
Facsimile: 806-378-2724

May 19, 2014

Mr. Mark W. Schwirtz, President and General Manager
Golden Spread Electric Cooperative, Inc.
PO Box 9898
Amarillo, TX 79105

Dear Mr. Schwirtz:

Southwestern Public Service Company (SPS), a subsidiary of Xcel Energy Inc., has filed an application with the Public Utility Commission of Texas (Commission) to amend its Certificate of Convenience and Necessity in order to construct and operate a new 115-kilovolt (kV) transmission line within Wheeler County, Texas (*Application of Southwestern Public Service Company to Amend a Certificate of Convenience and Necessity (CCN) for a Proposed 115-kV Transmission Line within Wheeler County, Texas*) – Docket No. 42388. SPS is requesting the approval of the Commission for this project..

SPS is proposing to construct and operate a single circuit, 115-kilovolt (kV) electric transmission line between the existing Wheeler County Substation and a new Coburn Creek Substation both located in Wheeler County, Texas. The proposed transmission line is needed for reliability and to address load growth in the eastern Texas Panhandle.

SPS has determined that increased distribution capacity is necessary in the Wheeler, Texas area. This proposed 115-kV transmission line is needed to provide a source for the new 28 MVA Coburn Creek Substation. This new substation will address the distribution capacity need that was identified by SPS distribution system planning and allow SPS to meet the increased distribution demand in the area.

The Project will involve the construction of a new transmission line which will begin at the existing Wheeler County Substation located in Wheeler County, approximately 5.2 miles south-southeast of the city of Wheeler, and will extend generally northeast until it reaches the proposed Coburn Creek Substation located along State Highway 152, approximately 7.5 miles east of the city of Wheeler. The transmission line will be constructed using single-circuit, self-supporting steel monopole structures. The proposed transmission line will be constructed on new right-of-way (ROW) with a proposed permanent easement of 70 feet (wider in exceptional circumstances) and a proposed temporary easement of an additional 30 feet during construction. The proposed transmission line is presented with nine alternative routes consisting of a combined 36 segments and is estimated to be 10.8-11.8 miles depending on which route is selected.

Depending on the route chosen, the total cost of the project in Texas, including the transmission line and substation costs, is estimated to be between approximately $12.6 million and $13.2 million.

Enclosed are a copy of a written description of the segments to be used for the alternative routes and a map of the proposed project. ***All routes and route segments included in this notice are available for selection and approval by the Public Utility Commission of Texas.*** A copy of the complete application, which includes other maps pertinent to the project, is available for review at SPS's offices at Chase Tower, 600 S. Tyler Street, Suite 2700, Amarillo, Texas, 79101. Information about the proposed project is also accessible on Xcel Energy's website *Power for the Plains* at http://www.powerfortheplains.com.

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If you have any questions or need additional information, please call Lance Kenedy or James Bagley.

Sincerely,

Sean L. Frederiksen, Manager
Siting and Land Rights

Enclosures

Xcel Energy℠
SOUTHWESTERN PUBLIC SERVICE COMPANY

Siting and Land Rights

P.O. Box 1261
Amarillo, TX 79105-1261
Telephone: **806-378-2436**
Facsimile: 806-378-2724

May 19, 2014

Jerry Hefley
401 Main Street
Wheeler, TX 79096

Dear Judge Hefley:

Southwestern Public Service Company (SPS), a subsidiary of Xcel Energy Inc., has filed an application with the Public Utility Commission of Texas (Commission) to amend its Certificate of Convenience and Necessity in order to construct and operate a new 115-kilovolt (kV) transmission line within Wheeler County, Texas (*Application of Southwestern Public Service Company to Amend a Certificate of Convenience and Necessity (CCN) for a Proposed 115-kV Transmission Line within Wheeler County, Texas*) – Docket No. 42388. SPS is requesting the approval of the Commission for this project.

SPS is proposing to construct and operate a single circuit, 115-kilovolt (kV) electric transmission line between the existing Wheeler County Substation and a new Coburn Creek Substation both located in Wheeler County, Texas. The proposed transmission line is needed for reliability and to address load growth in the eastern Texas Panhandle.

SPS has determined that increased distribution capacity is necessary in the Wheeler, Texas area. This proposed 115-kV transmission line is needed to provide a source for the new 28 MVA Coburn Creek Substation. This new substation will address the distribution capacity need that was identified by SPS distribution system planning and allow SPS to meet the increased distribution demand in the area.

The Project will involve the construction of a new transmission line which will begin at the existing Wheeler County Substation located in Wheeler County, approximately 5.2 miles south-southeast of the city of Wheeler, and will extend generally northeast until it reaches the proposed Coburn Creek Substation located along State Highway 152, approximately 7.5 miles east of the city of Wheeler. The transmission line will be constructed using single-circuit, self-supporting steel monopole structures. The proposed transmission line will be constructed on new right-of-way (ROW) with a proposed permanent easement of 70 feet (wider in exceptional circumstances) and a proposed temporary easement of an additional 30 feet during construction. The proposed transmission line is presented with nine alternative routes consisting of a combined 36 segments and is estimated to be 10.8-11.8 miles depending on which route is selected.

Depending on the route chosen, the total cost of the project in Texas, including the transmission line and substation costs, is estimated to be between approximately $12.6 million and $13.2 million.

Enclosed are a copy of a written description of the segments to be used for the alternative routes and a map of the proposed project. ***All routes and route segments included in this notice are available for selection and approval by the Public Utility Commission of Texas.*** A copy of the complete application, which includes other maps pertinent to the project, is available for review at SPS's offices at Chase Tower, 600 S. Tyler Street, Suite 2700, Amarillo, Texas, 79101. Information about the proposed project is also accessible on Xcel Energy's website *Power for the Plains* at http://www.powerfortheplains.com.

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The PUC has a brochure titled "Landowners and Transmission Line Cases at the PUC." Copies of the brochure are enclosed and are also available from Lance Kenedy at 806-378-2435 or James Bagley at 806-378-2868 or may be downloaded from the PUC's website at www.puc.state.tx.us. To obtain additional information about this docket, you may contact the PUC's Customer Assistance Hotline at 512-936-7120 or 888-782-8477. Hearing- and speech-impaired individuals with text telephones (TTY) may contact the PUC's Customer Assistance Hotline at 512-936-7136 or toll free at 800-735-2989. In addition to the intervention deadline, other important deadlines may already exist that affect your participation in this docket. You should review the orders and other filings already made in the docket.

If you have any questions or need additional information, please call Lance Kenedy or James Bagley.

Sincerely,

Sean L. Frederiksen

Sean L. Frederiksen, Manager
Siting and Land Rights

Enclosures

SOUTHWESTERN PUBLIC SERVICE COMPANY

Siting and Land Rights

P.O. Box 1261
Amarillo, TX 79105-1261
Telephone: **806-378-2436**
Facsimile: 806-378-2724

May 19, 2014

Bob McCain
PO Box 98
Wheeler, TX 79096-0098

Dear Mayor McCain:

Southwestern Public Service Company (SPS), a subsidiary of Xcel Energy Inc., has filed an application with the Public Utility Commission of Texas (Commission) to amend its Certificate of Convenience and Necessity in order to construct and operate a new 115-kilovolt (kV) transmission line within Wheeler County, Texas (*Application of Southwestern Public Service Company to Amend a Certificate of Convenience and Necessity (CCN) for a Proposed 115-kV Transmission Line within Wheeler County, Texas*) – Docket No. 42388. SPS is requesting the approval of the Commission for this project.

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SPS has determined that increased distribution capacity is necessary in the Wheeler, Texas area. This proposed 115-kV transmission line is needed to provide a source for the new 28 MVA Coburn Creek Substation. This new substation will address the distribution capacity need that was identified by SPS distribution system planning and allow SPS to meet the increased distribution demand in the area.

The Project will involve the construction of a new transmission line which will begin at the existing Wheeler County Substation located in Wheeler County, approximately 5.2 miles south-southeast of the city of Wheeler, and will extend generally northeast until it reaches the proposed Coburn Creek Substation located along State Highway 152, approximately 7.5 miles east of the city of Wheeler. The transmission line will be constructed using single-circuit, self-supporting steel monopole structures. The proposed transmission line will be constructed on new right-of-way (ROW) with a proposed permanent easement of 70 feet (wider in exceptional circumstances) and a proposed temporary easement of an additional 30 feet during construction. The proposed transmission line is presented with nine alternative routes consisting of a combined 36 segments and is estimated to be 10.8-11.8 miles depending on which route is selected.

Depending on the route chosen, the total cost of the project in Texas, including the transmission line and substation costs, is estimated to be between approximately $12.6 million and $13.2 million.

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If you have any questions or need additional information, please call Lance Kenedy or James Bagley.

Sincerely,

Sean L. Frederiksen, Manager
Siting and Land Rights

Enclosures

Application of Southwestern Public Service Company to Amend a Certificate of Convenience and Necessity for a Proposed 115-kV Transmission Line within Wheeler County, Texas

PUBLIC UTILITY COMMISSION OF TEXAS DOCKET NO. 42388

Southwestern Public Service Company (SPS), a subsidiary of Xcel Energy Inc., intends to amend its Certificate of Convenience and Necessity (CCN) in order to construct and operate a new 115-kilovolt (kV) transmission line within Wheeler County, Texas. Southwestern Public Service Company (SPS) has filed an application with the Public Utility Commission of Texas (Commission or PUC) (Docket No. 42388 - ***Application of Southwestern Public Service Company to Amend a Certificate of Convenience and Necessity for a Proposed 115-kV Transmission Line within Wheeler County, Texas)*** and is requesting the approval of the Commission for this project.

SPS is proposing to construct and operate a single circuit, 115-kilovolt (kV) electric transmission line between the existing Wheeler County Substation and a new Coburn Creek Substation both located in Wheeler County, Texas. The proposed transmission line is needed for reliability and to address load growth in the eastern Texas Panhandle.

SPS has determined that increased distribution capacity is necessary in the Wheeler, Texas area. This proposed 115-kV transmission line is needed to provide a source for the new 28 MVA Coburn Creek Substation. This new substation will address the distribution capacity need that was identified by SPS distribution system planning and allow SPS to meet the increased distribution demand in the area.

The Project will involve the construction of a new transmission line which will begin at the existing Wheeler County Substation located in Wheeler County, approximately 5.2 miles south-southeast of the city of Wheeler, and will extend generally northeast until it reaches the proposed Coburn Creek Substation located along State Highway 152, approximately 7.5 miles east of the city of Wheeler. The transmission line will be constructed using single-circuit, self-supporting steel monopole structures. The proposed transmission line will be constructed on new right-of-way (ROW) with a proposed permanent easement of 70 feet (wider in exceptional circumstances) and a proposed temporary easement of an additional 30 feet during construction. The proposed transmission line is presented with nine alternative routes consisting of a combined 36 segments and is estimated to be 10.8-11.8 miles depending on which route is selected.

Depending on the route chosen, the total cost of the project, including the transmission line and substation costs, is estimated to be between approximately $12.6 million and $13.2 million.

Persons with questions about the transmission line may contact SPS's representatives Lance Kenedy at 806-378-2435 or James Bagley at 806-378-2868. Enclosed are a copy of a written description of the segments to be used for the alternative routes and a map of the proposed project. The same detailed routing map may be reviewed at SPS's offices at Chase Tower, 600 S. Tyler Street, Suite 2700, Amarillo, Texas, 79101. Information about the proposed project is also accessible on Xcel Energy's website *Power for the Plains* at http://www.powerfortheplains.com.

All routes and route segments included in this notice are available for selection and approval by the Commission.

Persons who are affected by the proposed transmission line and wish to intervene in the docket or comment on the applicant's application should mail the original and 10 copies of their request to intervene or their comments to:

Public Utility Commission of Texas
Central Records
Attn: Filing Clerk
1701 N. Congress Ave.
P.O. Box 13326
Austin, Texas 78711-3326

Persons who wish to intervene in the docket must also mail a copy of their request for intervention to all parties in the docket and all persons that have pending motions to intervene, at or before the time the request for intervention is mailed to the PUC. ***The only way to fully participate in the PUC's decision on where to locate the transmission line is to intervene in the docket. It is important for an affected person to intervene because the utility is not obligated to keep affected persons informed of the PUC's proceedings and cannot predict which route may or may not be approved by the PUC.***

The deadline for intervention in the proceeding is July 3, 2014, and the PUC should receive a letter from anyone requesting intervention by that date.

The PUC has a brochure titled "Landowners and Transmission Line Cases at the PUC." Copies of the brochure are available from Lance Kenedy 806-378-2435 or may be downloaded from the PUC's website at www.puc.state.tx.us. To obtain additional information about this docket, you may contact the PUC's Customer Assistance Hotline at 512-936-7120 or 888-782-8477. Hearing-and speech-impaired individuals with text telephones (TTY) may contact the PUC's Customer Assistance Hotline at 512-936-7136 or toll free at 800-735-2989. In addition to the intervention deadline, other important deadlines may already exist that affect your participation in this docket. You should review the orders and other filings already made in the docket.

WHEELER 115-KV TRANSMISSION LINE PROJECT
SEGMENT DESCRIPTIONS

Route Number	Segments	Route Length
1	A-B-C-D-N-U-CC-FF-GG-HH-II	10.9
2	A-B-C-G-M-T-BB-CC-DD-HH-II	11.0
3	A-B-F-K-O-P-Q-V-II	11.2
4	A-B-F-H-L-S-Y-Z-AA-BB-CC-FF-GG-HH-II	10.9
5	A-E-H-I-J-N-U-CC-FF-GG-HH-II	10.9
6	A-E-K-R-X-Z-EE-GG-HH-II	10.8
7	A-E-K-R-W-Y-Z-EE-JJ	11.8
8	A-E-H-L-P-Q-U-CC-FF-GG-HH-II	10.9
9	A-E-H-L-S-Y-Z-AA-BB-CC-FF-GG-HH-II	10.9

SEGMENT A

Segment A begins at the southeastern edge of the existing Wheeler County Substation, located approximately 0.39 mile west-northwest of the intersection of FM 1906/CRQ and US Highway 83, in the Section 1/Abstract 403. The segment runs east for approximately 0.22 mile parallel to the north side of FM 1906/CR Q, along the southern boundary of Section 1/Abstract 403, and crosses a pipeline. The segment then continues east for approximately 0.19 mile and crosses US Highway 83 before entering Section 4/Abstract 8319 and reaching the segment's intersection

with Segments B and E, located on the northeast corner of the intersection of FM 1906 and US Highway 83, in the southwest corner of Section 4/Abstract 8319.

SEGMENT B

Segment B begins at the intersection of Segments A and E, located on the northeast corner of the intersection of FM 1906 and US Highway 83, in the southwest corner of Section 4/Abstract 8319. The segment runs north for approximately 0.99 mile parallel to the east side of US Highway 83, along the western boundary of Section 4/Abstract 8319 and crosses into Section 3/Abstract 404, before it reaches the segment's intersection with Segments C and F, located approximately 0.02 mile northeast of the intersection of CR P and US Highway 83, in the southwest corner of Section 3/Abstract 404.

SEGMENT C

Segment C begins at the intersection with Segments B, and F, located approximately 0.02 mile northeast of the intersection of CR P and US Highway 83, in the southwest corner of Section 3/Abstract 404. The segment runs north for approximately 0.54 mile parallel to the east side of US Highway 83, along the western boundary of Section 3/Abstract 404. The segment continues north for approximately 0.21 mile parallel to the east side of CR 17, along the western boundary of Section 3/Abstract 404. The segment then turns northwest for approximately 0.06 mile crossing CR 17 into Section 2/Abstract 8676. The segment then turns north for approximately 0.12 mile parallel to the west side of CR 17, along the eastern boundary of Section 2/Abstract 8676 and crosses a pipeline, then continues north approximately 0.08 mile and crosses CR O into Section 14/Abstract 455. The segment continues north for approximately 1.02 miles parallel to the west side of an existing 69 kV transmission line and CR 17, along the eastern boundary of Section 14/Abstract 455 and crosses CR N and the existing 69 kV transmission line into Section 6/Abstract 8383 before it reaches the segment's intersection with Segments D and G, located on the northwest corner of CR N and CR 17, in the southeast corner of Section 6/Abstract 8383.

SEGMENT D

Segment D begins at the intersection of Segments C and G, located on the northwest corner of CR N and CR 17, in the southeast corner of Section 6/Abstract 8383. The segment runs north for approximately 0.41 mile parallel to the west side of CR 17, along the eastern boundary of Section 6/Abstract 8383, crossing a pipeline and continuing approximately 0.07 mile before crossing into Section 6/Abstract 8658. The segment then continues north for approximately 0.11 mile parallel to the west side of CR 17, along the eastern boundary of Section 6/Abstract 8658, crossing a pipeline and continuing north for approximately 0.13 mile, crossing into Section 6/Abstract 8570. The segment then continues north for approximately 0.23 mile parallel to the west side of CR 17, along the eastern boundary of Section 6/Abstract 8570. The segment then turns northeast for approximately 0.10 mile and crosses CR 17 into Section 4/Abstract 8374 before entering Section 3/Abstract 397. The segment then turns east for approximately 1.98 miles along the southern boundaries of Section 3/Abstract 397 and Section 1/Abstracts 396 and 392, until it reaches the segment's intersection with Segments J and N, located approximately 1.38 miles southwest of the intersection of State Highway 152 and CR 20, in the southwest corner of Section 1/Abstract 392.

SEGMENT E

Segment E begins at the intersection of Segments A and B, located on the northeast corner of the intersection of FM 1906/CR Q and US Highway 83, in the southwest corner of Section

4/Abstract 8319. The segment runs east for approximately 1.57 miles parallel to the north side of FM 1906, along the southern boundaries of Section 4/Abstract 8319 and Section 5/Abstract 402, crossing East Branch Bronco Creek. The segment continues east along the southern boundary of Section 5/Abstract 402 for approximately 0.44 mile, crossing CR 19 into Section 23/Abstract 473. The segment then turns north for approximately 1.00 mile parallel to the east side of CR 19 along the western boundary of Section 23/Abstract 473, and crossing into Section 15/Abstract 456 before reaching the segment's intersection with Segments F, H and K, located approximately 1.00 mile north of the intersection of FM 1906 and CR 19, in the southwest corner of Section 15/Abstract 456.

SEGMENT F

Segment F begins at the intersection of Segments B and C, located approximately 0.02 mile northeast of the intersection of CR P and US Highway 83, in the southwest corner of Section 3/Abstract 404. The segment runs east for approximately 1.28 miles along the southern boundaries of Section 3/Abstract 404 and Section 6/Abstract 8474, crossing East Branch Bronco Creek. The segment then continues east for approximately 0.72 mile along the southern boundaries of Section 6/Abstracts 8474 and 516, crossing CR 19 into Section 15/Abstract 456 and terminating at the segment's intersection with Segments E, H and K located approximately 1.00 mile north of the intersection of FM 1906 and CR 19, in the southwest corner of Section 15/Abstract 456.

SEGMENT G

Segment G begins at the intersection of Segments C and D, located on the northwest corner of CR N and CR 17, in the southeast corner of Section 6/Abstract 8383. The segment runs east for approximately 0.04 mile, crossing CR 17 into Section 4/Abstract 8374. The segment then runs east for approximately 0.40 mile parallel to the north side of CR N along the southern boundary of Section 4/Abstract 8374, and crosses a pipeline. The segment continues east for approximately 0.11 mile, then turns southeast for approximately 0.06 mile and crosses CR N and a pipeline into Section 13/Abstract 454. The segment then turns east for approximately 0.44 mile parallel to the south side of CR N along the northern boundary of Section 13/Abstract 454 and crosses into Section 12/Abstract 453. The segment continues east for approximately 1.02 miles along the northern boundary of Section 12/Abstract 453 and crosses into Section 11/Abstract 466 before it reaches the segment's intersection with Segments I, J and M, located approximately 1.00 mile north of the intersection of CR O and CR 19, in the northwest corner of Section 11/Abstract 466.

SEGMENT H

Segment H begins at the intersection of Segments E, F and K, located approximately 1.00 mile north of the intersection of FM 1906 and CR 19, in the southwest corner of Section 15/Abstract 456. The segment runs north for approximately 0.92 mile parallel to the east side of CR 19 along the western boundary of Section 15/Abstract 456, crossing a pipeline, and continuing approximately 0.06 mile until it reaches the segment's intersection with Segments I and L, located on the southeast corner of CR O and CR 19, in the northwest corner of Section 15/Abstract 456.

SEGMENT I

Segment I begins at the intersection of Segments H and L, located on the southeast corner of CR O and CR 19, in the northwest corner of Section 15/Abstract 456. The segment runs north for

approximately 0.02 mile, crossing CR O into Section 11/Abstract 466 and crossing an existing 69 kV transmission line. The segment then continues north approximately 0.99 mile along the western boundary of Section 11/Abstract 466 until it reaches the segment's intersection with Segments G, J and M, located approximately 1.00 mile north of the intersection of CR O and CR 19, in the northwest corner of Section 11/Abstract 466.

SEGMENT J

Segment J begins at the intersection of Segments G, I and M, located approximately 1.00 mile north of the intersection of CR O and CR 19, in the northwest corner of Section 11/Abstract 466. The segment runs north for approximately 0.03 mile, crossing into Section 2/Abstract 8375 and over a pipeline. The segment then continues north for approximately 0.42 mile along the western boundary of Section 2/Abstract 8375, crossing another pipeline. The segment then continues north along the western boundary of Section 2/Abstract 8375 for approximately 0.57 mile, crossing into Section 1/Abstract 392 before it reaches the segment's intersection with Segments D and N, located approximately 1.38 miles southwest of the intersection of State Highway 152 and CR 20, in the southwest corner of Section 1/Abstract 392.

SEGMENT K

Segment K begins at the intersection of Segments E, F and H, located approximately 1.00 mile north of the intersection of FM 1906 and CR 19, in the southwest corner of Section 15/Abstract 456. The segment runs east for approximately 1.00 mile along the southern boundary of Section 15/Abstract 456, and crosses into Section 16/Abstract 457 before reaching the segment's intersection with Segments O and R, located approximately 1.42 miles northwest of the intersection of FM 1906 and CR 21, in the southwest corner of Section 16/Abstract 457.

SEGMENT L

Segment L begins at the intersection of Segments H and I, located on the southeast corner of CR O and CR 19, in the northwest corner of Section 15/Abstract 456. The segment runs east for approximately 1.00 mile parallel to the south side of CR O along the northern boundary of Section 15/Abstract 456, crossing into Section 16/Abstract 457 before reaching the segment's intersection with Segments O, P and S, located approximately 0.99 mile west of the intersection of CR O and CR 21, in the northwest corner of Section 16/Abstract 457.

SEGMENT M

Segment M begins at the intersection of Segments G, I and J, located approximately 1.00 mile north of the intersection of CR O and CR 19, in the northwest corner of Section 11/Abstract 466. The segment runs east for approximately 0.99 mile, crossing into Section 10/Abstract 465 and reaching the segment's intersection with Segments P, Q and T, located approximately 1.42 miles northeast of the intersection of CR O and CR 19, in the northwest corner of Section 10/Abstract 465.

SEGMENT N

Segment N begins at the intersection of Segments D and J, located approximately 1.38 miles southwest of the intersection of State Highway 152 and CR 20, in the southwest corner of Section 1/Abstract 392. The segment runs east for approximately 0.98 mile along the southern boundary of Section 1/Abstract 392, crossing CR 20 into Section 2/Abstract 8774 before reaching the intersection of Segments Q, U and V, located approximately 0.98 mile south of the intersection of State Highway 152 and CR 20, in the southwest corner of Section 2/Abstract 8774.

SEGMENT O

Segment O begins at the intersection of Segments K and R, located approximately 1.42 miles northwest of the intersection of FM 1906 and CR 21, in the southwest corner of Section 16/Abstract 457. The segment runs north for approximately 0.59 mile along the western boundary of Section 16/Abstract 457, and crosses a pipeline. The segment then continues north for approximately 0.38 mile along the western boundary of Section 16/Abstract 457 until it reaches the segment's intersection with Segments L, P and S, located approximately 0.99 mile west of the intersection of CR O and CR 21, in the northwest corner of Section 16/Abstract 457.

SEGMENT P

Segment P begins at the intersection of Segments L, O and S, located approximately 0.99 mile west of the intersection of CR O and CR 21, in the northwest corner of Section 16/Abstract 457. The segment runs north for approximately 0.03 mile, crossing CR O into Section 10/Abstract 465 and crossing an existing 69 kV transmission line. The segment then continues north approximately 0.99 mile along the western boundary of Section 10/Abstract 465 until it reaches the segment's intersection with Segments M, Q and T, located approximately 1.42 miles northeast of the intersection of CR O and CR 19, in the northwest corner of Section 10/Abstract 465.

SEGMENT Q

Segment Q begins at the intersection of Segments M, P and T, located approximately 1.42 miles northeast of the intersection of CR O and CR 19, in the northwest corner of Section 10/Abstract 465. The segment runs north for approximately 0.05 mile along the western boundary of Section 1/Abstract 458 and crosses a pipeline. The segment then continues north approximately 0.41 mile along the western boundary of Section 1/Abstract 458 and crosses another pipeline. The segment continues north approximately 0.57 mile and crosses into Section 2/Abstract 8774 before it reaches the segment's intersection with Segments N, U and V, located approximately 0.98 mile south of the intersection of State Highway 152 and CR 20, in the southwest corner of Section 2/Abstract 8774.

SEGMENT R

Segment R begins at the intersection of Segments K and O, located approximately 1.42 miles northwest of the intersection of FM 1906 and CR 21, in the southwest corner of Section 16/Abstract 457. The segment runs east for approximately 0.28 mile along the southern boundary of Section 16/Abstract 457, crossing a pipeline. The segment continues east for approximately 0.72 mile along the southern boundary of Section 16/Abstract 457, and crosses CR 21 into Section 17/Abstract 467. The segment then turns north for approximately 0.50 mile parallel to the east side of CR 21 along the western boundary of Section 17/Abstract 467 and crosses a pipeline before it reaches the segment's intersection with Segments W and X, located approximately 0.49 mile south of the intersection of CR O and CR 21, in Section 17/Abstract 467.

SEGMENT S

Segment S begins at the intersection of Segments L, O and P, located approximately 0.99 mile west of the intersection of CR O and CR 21, in the northwest corner of Section 16/Abstract 457. The segment runs east for approximately 0.99 mile parallel to the south side of CR O along the northern boundary of Section 16/Abstract 457 and crosses CR 21 into Section 17/Abstract 467 before it reaches the segment's intersection with Segments W and Y, located on the southeast

corner of the intersection of CR O and CR 21, in the northwest corner of Section 17/Abstract 467.

SEGMENT T

Segment T begins at the intersection of Segments M, P and Q, located approximately 1.42 miles northeast of the intersection of CR O and CR 19, in the northwest corner of Section 10/Abstract 465. The segment runs northeast for approximately 0.11 mile and crosses into Section 1/Abstract 458. The segment then turns east for approximately 1.69 miles parallel to the south side of a pipeline along the southern boundaries of Section 1/Abstract 458 and Section 2/Abstract 459 and crosses CR 21 between the sections. The segment then turns southeast for approximately 0.08 mile and crosses into Section 9/Abstract 475. The segment then turns east for approximately 0.16 mile along the northern boundary of Section 9/Abstract 475 and crosses CR 22 into Section 8/Abstract 474 before it reaches the segment's intersection with Segments AA and BB, located approximately 0.98 mile northeast of the intersection of CR O and CR 22, in the northwest corner of Section 8/Abstract 474.

SEGMENT U

Segment U begins at the intersection of Segments N, Q and V, located approximately 0.98 mile south of the intersection of State Highway 152 and CR 20, in the southwest corner of Section 2/Abstract 8774. The segment runs east for approximately 0.98 mile along the southern boundary of Section 2/Abstract 8774. The segment then turns southeast for approximately 0.05 mile, and crosses CR 21 into Section 2/Abstract 459. The segment then turns east for approximately 0.98 mile along the northern boundary of Section 2/Abstract 459 until it reaches the segment's intersection with Segments BB and CC, located approximately 1.02 miles south of the intersection of State Highway 152 and CR 22, in the northeast corner of Section 2/Abstract 459.

SEGMENT V

Segment V begins at the intersection of Segments N, Q and U, located approximately 0.98 mile south of the intersection of State Highway 152 and CR 20, in the southwest corner of Section 2/Abstract 8774. The segment runs northwest for approximately 0.10 mile and crosses CR 20 into Section 1/Abstract 392. The segment then turns north for approximately 0.87 mile parallel to the west side of CR 20 along the eastern boundary of Section 1/Abstract 392. The segment then turns east for approximately 1.04 miles parallel to the south side of State Highway 152 along the northern boundary of Section 2/Abstract 8384 and crosses CR 21 into Section 1/Abstract 391. The segment the continues east for approximately 0.19 mile parallel to the south side of State Highway 152 along the northern boundary of Section 1/Abstract 391, where it crosses two pipelines, then continues approximately 0.51 mile. The segment then turns south for approximately 0.19 mile and crosses the two pipelines again. The segment then turns east for approximately 0.07 mile and crosses the two pipelines again. The segment then continues east for approximately 0.22 mile and crosses into Section 4/Abstract 8195. The segment then continues east for approximately 0.21 mile where it turns northeast for approximately 0.31 mile and crosses into Section 4/Abstract 8484 before it reaches the segment's intersection with Segments HH and II, located 0.05 mile south of the intersection of State Highway 152 and CR 419, in the northwest corner of Section 4/Abstract 8484.

SEGMENT W

Segment W begins at the intersection of Segments R and X, located approximately 0.49 mile south of the intersection of CR O and CR 21, in Section 17/Abstract 467. The segment runs

north for approximately 0.48 mile parallel to the east side of CR 21 along the western boundary of Section 17/Abstract 467 until it reaches the segment's intersection with Segments S and Y, located on the southeast corner of the intersection of CR O and CR 21, in the northwest corner of Section 17/Abstract 467.

SEGMENT X

Segment X begins at the intersection of Segments R and W, located approximately 0.49 mile south of the intersection of CR O and CR 21, in Section 17/Abstract 467. The segment runs east for approximately 1.01 miles parallel to the north side of a pipeline and crosses into Section 18/Abstract 468. The segment then turns north for approximately 0.48 mile along the western boundary of Section 18/Abstract 468 until it reaches the segment's intersection with Segments Y and Z, located southeast of the intersection of CR O and CR 22, in the northwest corner of Section 18/Abstract 468.

SEGMENT Y

Segment Y begins at the intersection of Segments S and W, located on the southeast corner of the intersection of CR O and CR 21, in the northwest corner of Section 17/Abstract 467. The segment runs east for approximately 1.02 miles parallel to the south side of CR O, and crosses into Section 18/Abstract 468, before it reaches the segment's intersection with Segments X and Z, located southeast of the intersection of CR O and CR 22, in the northwest corner of Section 18/Abstract 468.

SEGMENT Z

Segment Z begins at the intersection of Segments X and Y, located southeast of the intersection of CR O and CR 22, in the northwest corner of Section 18/Abstract 468. The segment runs north for approximately 0.02 mile parallel to the east side of CR 22 along the western boundary of Section 8/Abstract 474, crossing CR O and an existing 69 kV transmission line. The segment continues north for approximately 0.49 mile parallel to the east side of CR 22 along the western boundary of Section 8/Abstract 474 until it reaches the segment's intersection with Segments AA and EE located approximately 0.50 mile north of the intersection of CR O and CR 22, in Section 8/Abstract 474.

SEGMENT AA

Segment AA begins at the intersection of Segments Z and EE, located approximately 0.50 mile north of the intersection of CR O and CR 22, in Section 8/Abstract 474. The segment runs north for approximately 0.49 mile parallel to the east side of CR 22 along the western boundary of Section 8/Abstract 474 until it reaches the segment's intersection with Segments T and BB, located approximately 0.98 mile northeast of the intersection of CR O and CR 22, in the northwest corner of Section 8/Abstract 474.

SEGMENT BB

Segment BB begins at the intersection of Segments T and AA, located approximately 0.98 mile northeast of the intersection of CR O and CR 22, in the northwest corner of Section 8/Abstract 474. The segment runs north for approximately 0.06 mile along the western boundary of Section 3/Abstract 460 and crosses a pipeline. The segment continues north for approximately 0.42 mile along the western boundary of Section 3/Abstract 460 and crosses another pipeline. Approximately 0.01 mile after the pipeline, the segment turns northwest for approximately 0.07 mile and crosses into Section 2/Abstract 459. The segment then turns north for approximately 0.46 mile along the eastern boundary of Section 2/Abstract 459 until it reaches the segment's

intersection with Segments U and CC, located approximately 1.02 miles south of the intersection of State Highway 152 and CR 22, in the northeast corner of Section 2/Abstract 459.

SEGMENT CC

Segment CC begins at the intersection of Segments U and BB, located approximately 1.02 miles south of the intersection of State Highway 152 and CR 22, in the northeast corner of Section 2/Abstract 459. The segment runs east for approximately 0.02 mile, and crosses into Section 3/Abstract 460 before it reaches the segment's intersection with Segments DD and FF, located approximately 1.02 miles south of the intersection of State Highway 152 and CR 22, in the northwest corner of Section 3/Abstract 460.

SEGMENT DD

Segment DD begins at the intersection of Segments CC and FF, located approximately 1.02 miles south of the intersection of State Highway 152 and CR 22, in the northwest corner of Section 3/Abstract 460. The segment runs north for approximately 0.50 mile, immediately crossing into Section 4/Abstract 8325 and running along its western boundary. The segment then turns east and travels for approximately 0.50 mile along the northern boundary of Section 4/Abstract 8325 and crosses into Section 4/Abstract 8484 before it reaches the segment's intersection with Segments GG and HH, located approximately 0.51 mile south of the intersection of State Highway 152 and CR 419, in Section 4/Abstract 8484.

SEGMENT EE

Segment EE begins at the intersection of Segments Z and AA, located approximately 0.50 mile north of the intersection of CR O and CR 22, in Section 8/Abstract 474. The segment runs east for approximately 0.49 mile. The segment then turns north for approximately 0.50 mile and crosses into Section 3/Abstract 460. The segment then continues north for approximately 0.02 mile and crosses a pipeline. The segment then continues north for approximately 0.45 mile and crosses another pipeline. The segment then continues north approximately 0.54 mile until it reaches the segment's intersection with Segments FF, GG and JJ, located approximately 1.01 miles south of the intersection of State Highway 152 and CR 419, in Section 3/Abstract 460.

SEGMENT FF

Segment FF begins at the intersection of Segments CC and DD, located approximately 1.02 miles south of the intersection of State Highway 152 and CR 22, in the northwest corner of Section 3/Abstract 460. The segment runs east for approximately 0.50 mile along the northern boundary of Section 3/Abstract 460 until it reaches the segment's intersection with Segments EE, GG and JJ, located approximately 1.01 miles south of the intersection of State Highway 152 and CR 419, in Section 3/Abstract 460.

SEGMENT GG

Segment GG begins at the intersection of Segments EE, FF and JJ, located approximately 1.01 miles south of the intersection of State Highway 152 and CR 419, in Section 3/Abstract 460. The segment runs north for approximately 0.50 mile, immediately crossing into Section 4/Abstract 8484 and running along its western boundary until reaching the segment's intersection with Segments DD and HH, located approximately 0.51 mile south of the intersection of State Highway 152 and CR 419, in Section 4/Abstract 8484.

SEGMENT HH

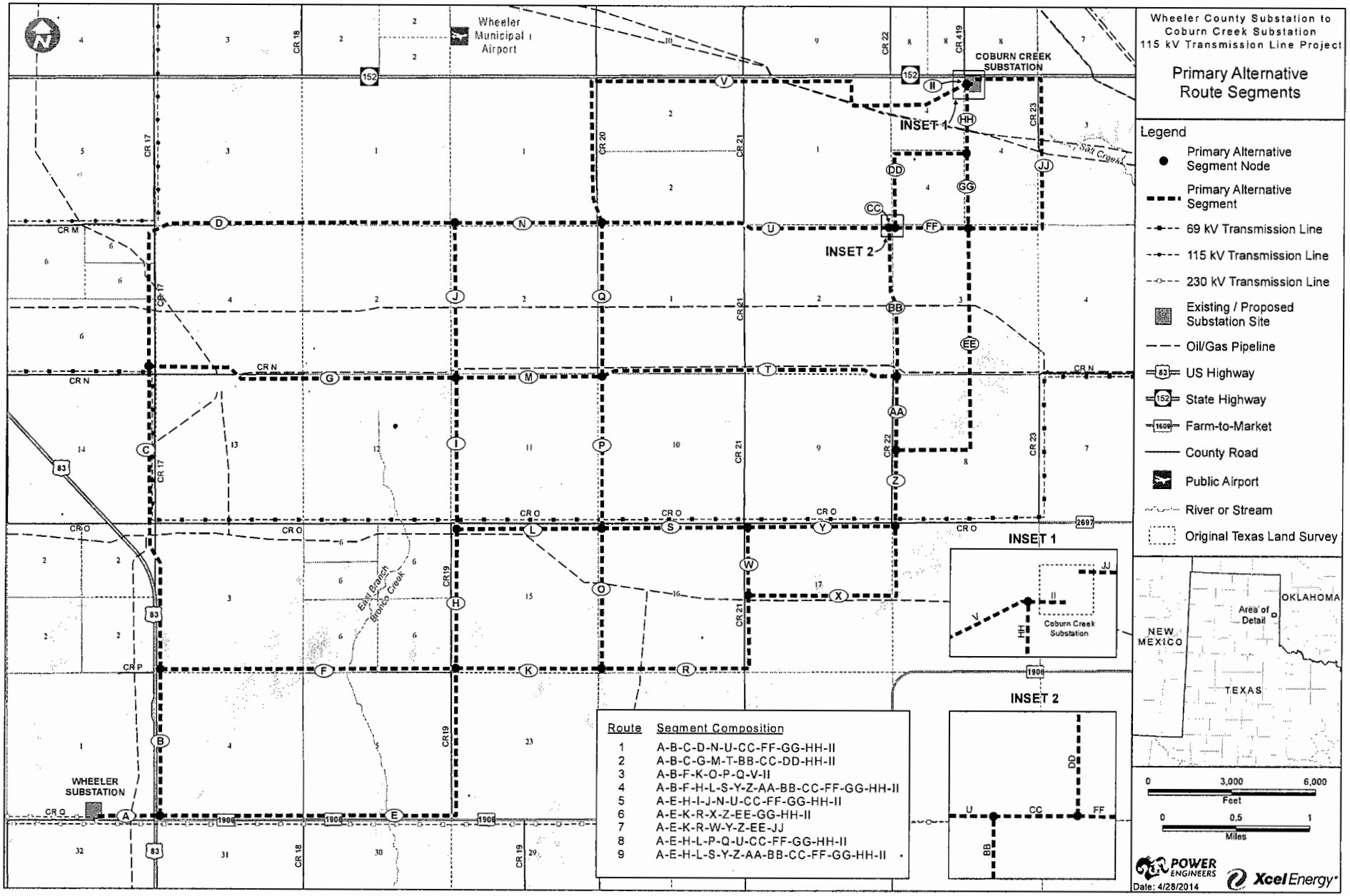
Segment HH begins at the intersection of Segments DD and GG, located approximately 0.51 mile south of the intersection of State Highway 152 and CR 419, in Section 4/Abstract 8484. The segment runs north for approximately 0.15 mile along the western boundary of Section 4/Abstract 8484, crossing two pipelines and then continuing north for approximately 0.31 mile until it reaches the segment's intersection with Segments V and II, located 0.05 mile south of the intersection of State Highway 152 and CR 419, in the northwest corner of Section 4/Abstract 8484.

SEGMENT II

Segment II begins at the intersection of Segments V and HH, located 0.05 mile south of the intersection of State Highway 152 and CR 419, in the northwest corner of Section 4/Abstract 8484. The segment runs east for approximately 0.02 mile until it reaches the proposed Coburn Creek Substation, located approximately 0.06 mile south-southeast of the intersection of State Highway 152 and CR 419, in Section 4/Abstract 8484.

SEGMENT JJ

Segment JJ begins at the intersection of Segments EE, FF and GG, located approximately 1.01 miles south of the intersection of State Highway 152 and CR 419, in Section 3/Abstract 460. The segment runs east for approximately 0.51 mile along the northern boundary of Section 3/Abstract 460 and crosses into Section 4/Abstract 461. The segment then turns north for approximately 0.51 mile, immediately crossing into Section 3/Abstract 2, running along its western boundary, and crossing a pipeline. The segment continues north for approximately 0.08 mile parallel to the east side of CR 23 along the western boundary of Section 3/Abstract 2, crosses another pipeline, then continues north for approximately 0.41 mile. The segment then turns west for approximately 0.43 mile parallel to the south side of State Highway 152, immediately crossing into Section 4/Abstract 8484 and continuing its northern boundary until it reaches the proposed Coburn Creek Substation, located approximately 0.08 mile east of the intersection of State Highway 152 and CR 419, in the northwest corner of Section 4/Abstract 8484.


Wheeler County Substation to Coburn Creek Substation 115 kV Transmission Line Project
Primary Alternative Route Segments
Legend
Primary Alternative Segment Node
Primary Alternative Segment
69 kV Transmission Line
115 kV Transmission Line
230 kV Transmission Line
Existing / Proposed Substation Site
Oil/Gas Pipeline
US Highway
State Highway
Farm-to-Market
County Road
Public Airport
River or Stream
Original Texas Land Survey
Wheeler Municipal Airport
COBURN CREEK SUBSTATION
WHEELER SUBSTATION
INSET 1
INSET 2
Coburn Creek Substation
Area of Detail
OKLAHOMA
NEW MEXICO
TEXAS
East Branch Bronco Creek
Route Segment Composition
1 A-B-C-D-N-U-CC-FF-GG-HH-II
2 A-B-C-G-M-T-BB-CC-DD-HH-II
3 A-B-F-K-O-P-Q-V-II
4 A-B-F-H-L-S-Y-Z-AA-BB-CC-FF-GG-HH-II
5 A-E-H-I-J-N-U-CC-FF-GG-HH-II
6 A-E-K-R-X-Z-EE-GG-HH-II
7 A-E-K-R-W-Y-Z-EE-JJ
8 A-E-H-L-P-Q-U-CC-FF-GG-HH-II
9 A-E-H-L-S-Y-Z-AA-BB-CC-FF-GG-HH-II
0 3,000 6,000
Feet
0 0.5 1
Miles
POWER ENGINEERS
Xcel Energy
Date: 4/28/2014

List of Newspapers

County Star-News
212 N Main
Shamrock, TX 79079
806-256-2070

Xcel Energy℠
SOUTHWESTERN PUBLIC SERVICE COMPANY

Siting and Land Rights

P.O. Box 1261
Amarillo, TX 79105-1261
Telephone: 806-378-2436
Facsimile: 806-378-2724

May 19, 2014

Kathy Boydston
Wildlife Habitat Assessment Program
Wildlife Division
Texas Parks and Wildlife Department
4200 Smith School Road
Austin, Texas 78744

Dear Ms. Boydston:

Southwestern Public Service Company (SPS), a subsidiary of Xcel Energy Inc., has filed an application with the Public Utility Commission of Texas (Commission) to amend its Certificate of Convenience and Necessity in order to construct and operate a new 115-kilovolt (kV) transmission line within Wheeler County, Texas (*Application of Southwestern Public Service Company to Amend a Certificate of Convenience and Necessity (CCN) for a Proposed 115-kV Transmission Line within Wheeler County, Texas*) – Docket No. 42388. SPS is requesting the approval of the Commission for this project.

SPS is proposing to construct and operate a single circuit, 115-kilovolt (kV) electric transmission line between the existing Wheeler County Substation and a new Coburn Creek Substation both located in Wheeler County, Texas. The proposed transmission line is needed for reliability and to address load growth in the eastern Texas Panhandle.

SPS has determined that increased distribution capacity is necessary in the Wheeler, Texas area. This proposed 115-kV transmission line is needed to provide a source for the new 28 MVA Coburn Creek Substation. This new substation will address the distribution capacity need that was identified by SPS distribution system planning and allow SPS to meet the increased distribution demand in the area.

The Project will involve the construction of a new transmission line which will begin at the existing Wheeler County Substation located in Wheeler County, approximately 5.2 miles south-southeast of the city of Wheeler, and will extend generally northeast until it reaches the proposed Coburn Creek Substation located along State Highway 152, approximately 7.5 miles east of the city of Wheeler. The transmission line will be constructed using single-circuit, self-supporting steel monopole structures. The proposed transmission line will be constructed on new right-of-way (ROW) with a proposed permanent easement of 70 feet (wider in exceptional circumstances) and a proposed temporary easement of an additional 30 feet during construction. The proposed transmission line is presented with nine alternative routes consisting of a combined 36 segments and is estimated to be 10.8-11.8 miles depending on which route is selected.

Depending on the route chosen, the total cost of the project in Texas, including the transmission line and substation costs, is estimated to be between approximately $12.6 million and $13.2 million.

Enclosed for your review is a copy of the application, which includes the Environmental Assessment of the proposed project.

If you have any questions or need additional information, please call James Bagley at 806-378-2868.

Sincerely,

Sean L. Frederiksen, Manager
Siting and Land Rights

Enclosure

Xcel Energy™
SOUTHWESTERN PUBLIC SERVICE COMPANY

Siting and Land Rights

P.O. Box 1261
Amarillo, TX 79105-1261
Telephone: **806-378-2436**
Facsimile: 806-378-2724

May 19, 2014

Michele Gregg
Office of Public Utility Counsel
P.O. Box 12397
Austin, TX 78711-2397

Dear Ms. Gregg:

Southwestern Public Service Company (SPS), a subsidiary of Xcel Energy Inc., has filed an application with the Public Utility Commission of Texas (Commission) to amend its Certificate of Convenience and Necessity in order to construct and operate a new 115-kilovolt (kV) transmission line within Wheeler County, Texas (*Application of Southwestern Public Service Company to Amend a Certificate of Convenience and Necessity (CCN) for a Proposed 115-kV Transmission Line within Wheeler County, Texas*) – Docket No. 42388. SPS is requesting the approval of the Commission for this project.

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Depending on the route chosen, the total cost of the project in Texas, including the transmission line and substation costs, is estimated to be between approximately $12.6 million and $13.2 million.

Enclosed are a copy of a written description of the segments to be used for the alternative routes and a map of the proposed project. ***All routes and route segments included in this notice are available for selection and approval by the Public Utility Commission of Texas.*** A copy of the complete application, which includes other maps pertinent to the project, is available for review at SPS's offices at Chase Tower, 600 S. Tyler Street, Suite 2700, Amarillo, Texas, 79101. Information about the proposed project is also accessible on Xcel Energy's website *Power for the Plains* at http://www.powerfortheplains.com.

Persons who wish to intervene in the docket or comment on the applicant's application should mail the original and 10 copies of their requests to intervene or their comments to:

Public Utility Commission of Texas
Central Records
Attn: Filing Clerk
1701 N. Congress Avenue
P. O. Box 13326
Austin, Texas 78711-3326

The deadline for intervention in the proceeding is July 3, 2014, and a letter requesting intervention should be received by the Commission by that date.

The PUC has a brochure titled "Landowners and Transmission Line Cases at the PUC." Copies of the brochure are available from Lance Kenedy at 806-378-2435 or James Bagley at 806-378-2868 or may be downloaded from the PUC's website at www.puc.state.tx.us. To obtain additional information about this docket, you may contact the PUC's Customer Assistance Hotline at 512-936-7120 or 888-782-8477. Hearing- and speech-impaired individuals with text telephones (TTY) may contact the PUC's Customer Assistance Hotline at 512-936-7136 or toll free at 800-735-2989. In addition to the intervention deadline, other important deadlines may already exist that affect your participation in this docket. You should review the orders and other filings already made in the docket.

If you have any questions or need additional information, please call Lance Kenedy or James Bagley.

Sincerely,

Sean L. Frederiksen, Manager
Siting and Land Rights

Enclosures