







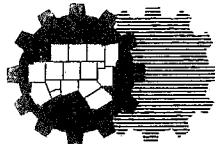
-  Route Segments
-  Existing Transmission Lines
-  Proposed Tap Sites
-  Proposed Substations

# BRAZOS ELECTRIC COOPERATIVE

## OAK POINT TRANSMISSION LINE AND SUBSTATION PROJECT

### TRANSMISSION LINE ALTERNATIVE SEGMENTS

THE SUBSTATIONS, TAPS, AND ROUTE SEGMENTS SHOWN ARE PRELIMINARY AND SUBJECT TO CHANGE



North Central Texas Council Of Governments

Ms. Christine Polito  
Cox McLain Environmental Consulting  
600 E. John Carpenter Freeway, Suite 380  
Irving, TX 75062

Re: Proposed Oak Point Transmission Line and Substation Project, Denton County, Texas

Dear Ms. Polito:

The North Central Texas Council of Governments (NCTCOG) has prepared the following comments related to the Brazos Electric Power Cooperative, Inc. (BEPC) route study and environmental report for Rural Utilities Service and the Public Utility Commission of Texas. The construction of a new transmission line and substation in Denton County was reviewed using the NCTCOG Regional Ecosystem Framework (REF). The REF is a geographic information systems (GIS) based tool that takes into account 10 Vital Ecosystem Information Layers (VEIL) used to identify ecosystem conservation priorities during development of infrastructure projects in North Central Texas. Each REF layer is based on 12-digit hydrologic unit code (HUC) subwatersheds. More information about the REF can be found at [www.nctcog.org/ref](http://www.nctcog.org/ref). The REF provides a relative indicator of the quantity of certain natural resources, but does not provide information about the quality of resources present in subwatersheds.

The quantity of a resource is important to consider when evaluating potential impacts, avoidance alternatives, and conservation opportunities. The proposed route for the transmission line and substation is located in 2 subwatersheds, Running Branch and Pecan Creek near the Little Elm Reservoir as shown in Attachment 1. Based on the REF, the Running Branch subwatershed composite score is 26 (relative to a < 15 – 40 range), which means from the composite of the 10 REF layers, resources of concern do exist when compared to other subwatersheds in the 12-county Metropolitan Planning Area. In the Running Branch subwatershed, 3 criteria were noted to be of greater priority (scoring a 5 on a scale of 1 to 5): surface water density; vegetative and species rarity; and wildlife habitat. The Pecan Creek subwatershed composite score is 22 and only 1 criteria, species rarity, scored a 5.

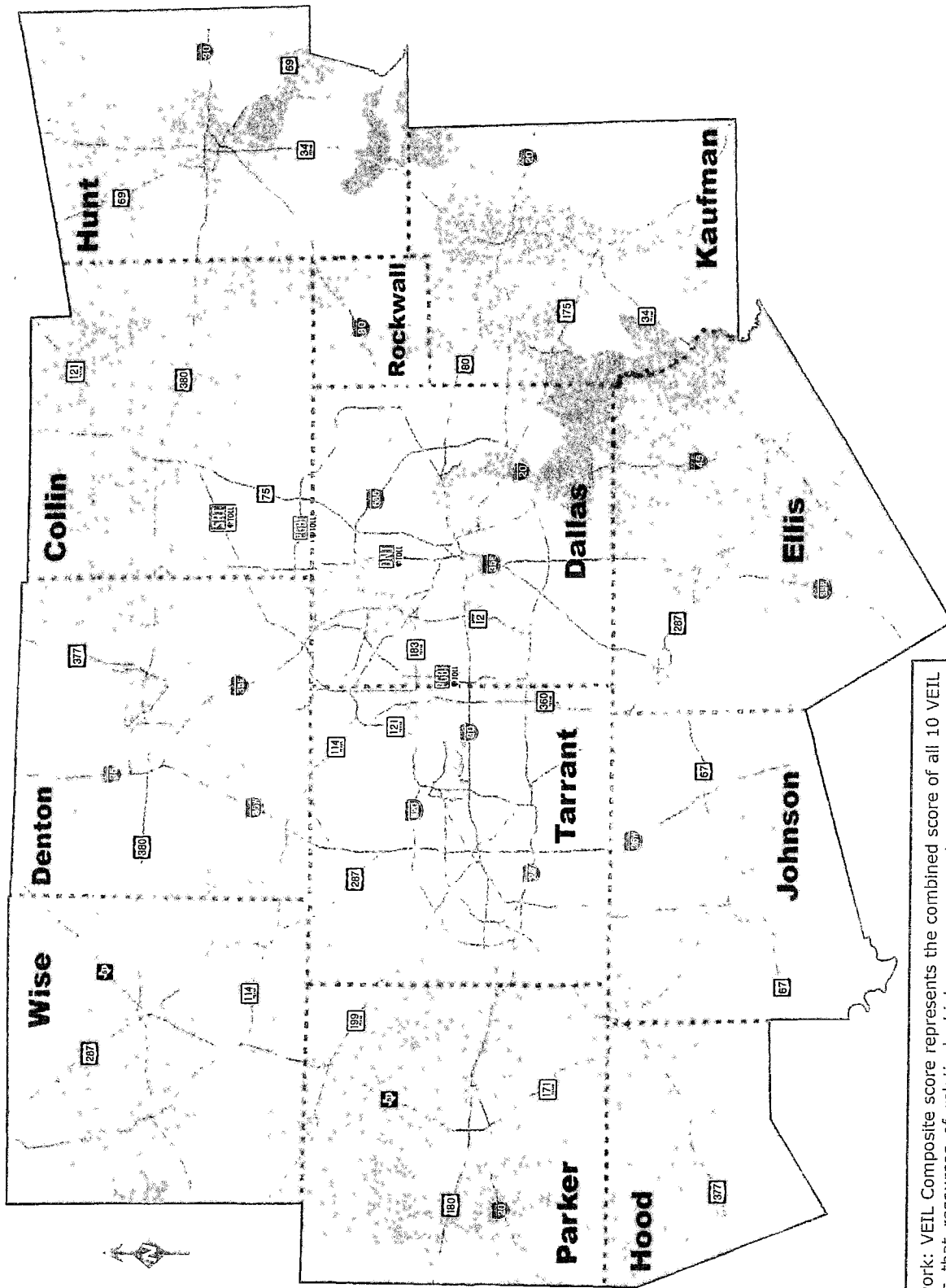
The REF demonstrates that these 2 subwatersheds may have some important resources to consider or study further. The REF is intended to be used as a high-level planning resource and the REF subwatershed scores are provided to assist with evaluating subwatersheds from a regional perspective and to compare their natural resource attributes to other subwatersheds in the region. The subwatershed scores and priority criteria should be considered a guide when determining potential impacts.

If you have any questions regarding NCTCOG's REF or these comments, please contact Erin Kelly by phone at 817-608-2360 or by email at [ekelly@nctcog.org](mailto:ekelly@nctcog.org).

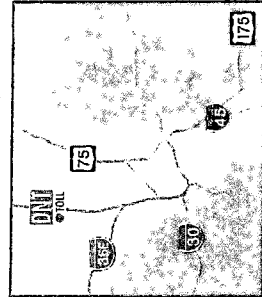
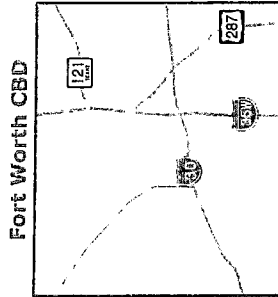
Sincerely,

Tamara Cook  
Manager, Environment and Development

# Regional Ecosystem Framework: VEIL Composite

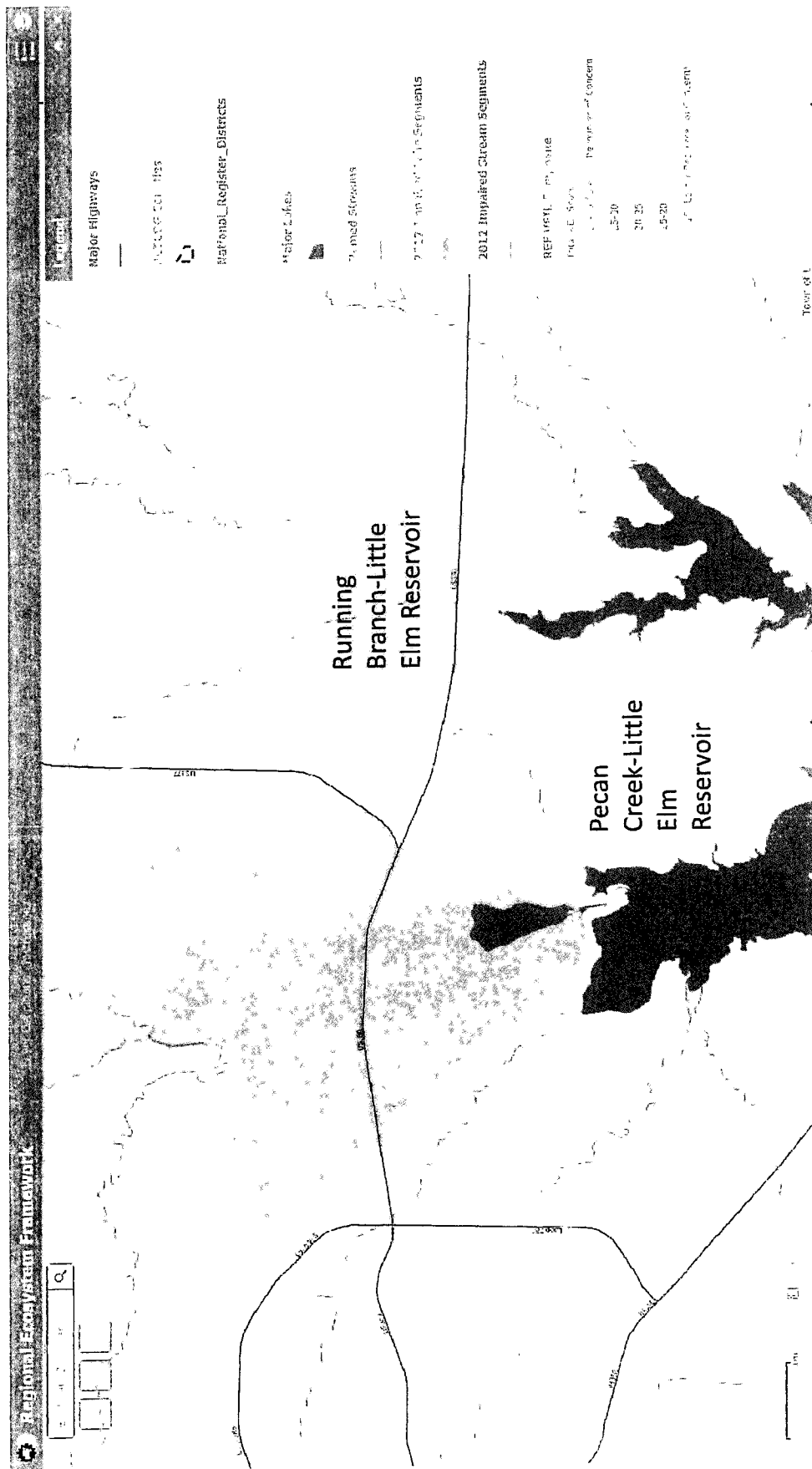


Legend	
VEIL Composite Score	
12 to 18	Some Resources
19 to 22	of Concern
23 to 26	
27 to 31	Greater Resources
32 to 40	of Concern



The Regional Ecosystem Framework: VEIL Composite score represents the combined score of all 10 VEIL layers. A higher score indicates that resources of relatively high concern may be present and that additional review, documentation, and consultation with the applicable agency may be needed. The VEIL layers include: Green Infrastructure (Wildlife Habitat, Natural Areas, Agricultural Land); Water Quality and Flooding (Impaired Water Segments, Flood Zones, Surface Water Quantity, and Wetlands); and Ecosystem Value (Rarity, Diversity, and Ecosystem Sustainability). Data sources include the Texas GRID and EPA Region 6 Regional Ecosystem Assessment Protocol data. This information has been developed for the Dallas-Fort Worth MPA for use in long-range planning. These scores are meant to be used as a preliminary screening tool for potential impact identification. For more information on the calculations for this layer, please visit [www.nctcog.org/REF](http://www.nctcog.org/REF).

# Attachment 1





North Central Texas Council Of Governments  
P. O. Box 5888, Arlington, Texas 76005-5888

05/13/2016  
04/16/2016  
05/13/2016

Christine Polito  
Cox McLain Environmental Consulting  
600 E. John Carpenter Freeway, Suite 380  
Irving, TX 75062

05/13/2016  
04/16/2016  
05/13/2016

7506238380 0041



## Christine Polito

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**From:** Richard Chambers <[rchambers@brazoselectric.com](mailto:rchambers@brazoselectric.com)>  
**Sent:** Tuesday, May 26, 2015 11:35 AM  
**To:** Larry Cox  
**Cc:** Christine Polito  
**Subject:** FW: Brazos Electric Power Cooperative, Inc. = Proposed Transmission Project - Denton County, Texas

**Follow Up Flag:** Follow up  
**Flag Status:** Completed

Due to the response below, we will need to revise link II off ISD property. Brazos Electric does not have eminent domain rights over the ISD and would have no way off building the transmission line of ordered across their property. We can discuss further this afternoon.

This email can be used in the route analysis as to why the route was relocated.

Thanks,

*Richard Chambers*

Project Regulatory Coordinator  
Brazos Electric Power Cooperative, Inc.  
254-750-6369  
[rchambers@brazoselectric.com](mailto:rchambers@brazoselectric.com)

**From:** Address, Paul E [<mailto:pandress@dentonisd.org>]  
**Sent:** Tuesday, May 26, 2015 11:31 AM  
**To:** Richard Chambers  
**Cc:** Martin, Glen D; Dave McDaniel  
**Subject:** RE: Brazos Electric Power Cooperative, Inc. = Proposed Transmission Project - Denton County, Texas

I spoke with our Superintendent about this today. Based on concerns from our Board of Trustees with our last Transmission Line project he does not want to proceed with this project. I know that is not what you wanted to hear but at least he answered quickly. Thanks!

**From:** Richard Chambers [<mailto:rchambers@brazoselectric.com>]  
**Sent:** Tuesday, May 26, 2015 9:25 AM  
**To:** Address, Paul E  
**Cc:** Martin, Glen D; Dave McDaniel  
**Subject:** RE: Brazos Electric Power Cooperative, Inc. = Proposed Transmission Project - Denton County, Texas

Paul,  
I appreciate the time Glen and you allowed me to explain the Oak Point Project last Friday morning. More specifically, how the preliminary routes affect land owned by Denton ISD.

If there is any other information needed please let me know.

Thanks,

*Richard Chambers*

Project Regulatory Coordinator  
Brazos Electric Power Cooperative, Inc.  
254-750-6369  
[rchambers@brazoselectric.com](mailto:rchambers@brazoselectric.com)

**From:** Andress, Paul E [<mailto:pandress@dentonisd.org>]  
**Sent:** Tuesday, May 19, 2015 12:37 PM  
**To:** Richard Chambers  
**Cc:** Martin, Glen D; Don McKelvain; Mark Buckingham  
**Subject:** RE: Brazos Electric Power Cooperative, Inc. = Proposed Transmission Project - Denton County, Texas

Friday morning works good with us. Thanks for adjusting your schedule for us. See you then!

**From:** Richard Chambers [<mailto:rchambers@brazoselectric.com>]  
**Sent:** Tuesday, May 19, 2015 10:00 AM  
**To:** Andress, Paul E  
**Cc:** Martin, Glen D; Don McKelvain; Mark Buckingham  
**Subject:** RE: Brazos Electric Power Cooperative, Inc. = Proposed Transmission Project - Denton County, Texas

Andress, please re-schedule the meeting for Friday morning at 8:00 a.m. Again, we can visit either before the Civics Leaders Meeting Thursday or immediately afterwards if that would help eliminate scheduling conflicts.

Thanks,

*Richard Chambers*

Project Regulatory Coordinator  
Brazos Electric Power Cooperative, Inc.  
254-750-6369  
[rchambers@brazoselectric.com](mailto:rchambers@brazoselectric.com)

**From:** Andress, Paul E [<mailto:pandress@dentonisd.org>]  
**Sent:** Tuesday, May 19, 2015 8:43 AM  
**To:** Richard Chambers  
**Cc:** Martin, Glen D  
**Subject:** RE: Brazos Electric Power Cooperative, Inc. = Proposed Transmission Project - Denton County, Texas

Richard,  
Would it be possible to reschedule this meeting until Friday morning at 8am? Glen and I both have conflicts that have come up. If that doesn't work maybe a day next week. Let us know. Thanks!

**From:** Andress, Paul E  
**Sent:** Friday, May 15, 2015 10:53 AM  
**To:** 'Richard Chambers'  
**Cc:** Martin, Glen D  
**Subject:** RE: Brazos Electric Power Cooperative, Inc. = Proposed Transmission Project - Denton County, Texas

Sounds good. See you then. Thanks!

**From:** Richard Chambers [<mailto:rchambers@brazoselectric.com>]  
**Sent:** Friday, May 15, 2015 10:52 AM  
**To:** Andress, Paul E  
**Cc:** Martin, Glen D  
**Subject:** RE: Brazos Electric Power Cooperative, Inc. = Proposed Transmission Project - Denton County, Texas

Paul, that date and time works for Brazos. I will be bringing someone from our right-of-way department along. I will also bring detailed route constraint exhibits that will include the type of construction that is proposed.

Thanks,

*Richard Chambers*

Project Regulatory Coordinator  
Brazos Electric Power Cooperative, Inc.  
254-750-6369  
[rchambers@brazoselectric.com](mailto:rchambers@brazoselectric.com)

**From:** Andress, Paul E [<mailto:pandress@dentonisd.org>]  
**Sent:** Friday, May 15, 2015 9:49 AM  
**To:** Richard Chambers  
**Cc:** Martin, Glen D  
**Subject:** RE: Brazos Electric Power Cooperative, Inc. = Proposed Transmission Project - Denton County, Texas

Would it possible to meet with us next Wednesday at 1:30pm here at our office? The address to our office is in my signature below. Let us know. Thanks!

*Paul Andress*

*Executive Director of Operations  
Denton Independent School District  
Norman T. Sisk Service Center Annex  
230 North Mayhill Road  
Denton, Texas 76208  
Office: 940-369-0200  
Fax: 940-369-4973  
[pandress@dentonisd.org](mailto:pandress@dentonisd.org)*

**From:** Richard Chambers [<mailto:rchambers@brazoselectric.com>]  
**Sent:** Friday, May 15, 2015 8:34 AM  
**To:** Andress, Paul E  
**Subject:** Brazos Electric Power Cooperative, Inc. = Proposed Transmission Project - Denton County, Texas

Mr. Andress,  
Richard Chambers with Brazos Electric here. Mr. Andress, Brazos Electric is in the early stages of gathering information as part of a proposed new transmission line project to serve the peninsula of Oak Point, Texas. Brazos Electric has compiled a variety of route links that make up many viable routes that will ultimately get filed as part of an application with the Public Utility Commission of Texas. One of the proposed links would directly affect property that is owned by Denton ISD. I would like to personally set up a meeting with you and or a Denton ISD representative that I could explain



the project and get feedback from regarding the proposed link and how it might affect your property. The property I am referring to is located on the west side of F.M. 720 south of the intersection of F.M. 720 and Martop Road, southwest corner.

Denton ISD, (Superintendent Dr. Jamie, Wilson 1307 N. Locust St.) was mailed a packet last week, inviting him to a Civic Leaders Meeting that will be held next Thursday, May 21<sup>st</sup> at the Oak Point Elementary School starting at 5:30 p.m.

Please contact me to set up a meeting, or if you could make the May 21<sup>st</sup> meeting we could discuss then.

Thanks for your time,

***Richard Chambers***

Project Regulatory Coordinator  
Brazos Electric Power Cooperative, Inc.  
254-750-6369  
[rchambers@brazoselectric.com](mailto:rchambers@brazoselectric.com)

## CONTACT REPORT FORM

Contact Person: PUCT – Mike Hooke

Agency: PUCT

Phone Number 512-936-7048

Date: 8-13-15

Address: Oak Point – PUCT Austin

Job: Oak Point Transmission

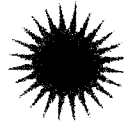
County: Travis County

REMARKS: Mike Hooke called on 8/10 and again on 8/13 in reference to calls received from Senator Jane Nelson's office. Senator Nelson was asking about detailed information in regards to the Oak point Project. I gave him the Brazos Web site location and the tab in which the Senators office could go and get all up to date information.

After wards Mr., Hooke called back and asked who Senator Nelson's office could contact to speak with at Brazos about the project. I told him I was the contact and gave him phone and email information.

Signed: Richard Chambers

Date: 8/13/15



**TRANSMITTAL MEMO**

**Cox|McLain Environmental  
Consulting Inc.**

6010 Balcones Drive, Ste. 210

Austin, TX 78731

[www.coxmclain.com](http://www.coxmclain.com)

(512)338-2223

To: Dennis Rankin – Rural Utilities Service

From: Christine Polito – CMEC

Date: September 25, 2015

RE: Brazos Electric's Oak Point Transmission Line  
and Substation Project

Mr. Rankin,

Enclosed please find one bound copy of the Environmental Report for Brazos Electric Power Cooperative's proposed Oak Point Transmission Line and Substation Project.

Please let me know if you need anything else.

Thank you,

Christine

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**Attachment No. 3 – Routing Maps for CCN Application**

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## **Routing Maps for CCN Application**

**Sheet 1 of 3:**

**Overall Map**

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**Routing Maps for CCN Application**

**Sheet 2 of 3:**

**North Sheet**

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**Routing Maps for CCN Application**

**Sheet 3 of 3:**

**South Sheet**

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**Attachment No. 4 – Transmittal of Environmental Report to TPWD**

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September 25, 2015

Karen B. Hardin  
Wildlife Habitat Assessment Program  
Wildlife Division  
Texas Parks and Wildlife Department  
4200 Smith School Road  
Austin, TX 78744

**RE: Proposed Oak Point Transmission Line and Substation Project  
Denton County, Texas  
TPWD Project 34767**

Dear Ms. Hardin:

Thank you for the recommendations you provided in your July 20, 2015 letter regarding Brazos Electric's proposed Oak Point Transmission Line and Substation Project. A copy of the Environmental Report (ER) for the project is enclosed for your review. The recommendations you provided have been incorporated into the ER, as appropriate, and responses to each of the recommendations are included below.

#### **Recommendation #1**

Texas Parks and Wildlife Department (TPWD) recommends using existing transmission 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 rights-of-way (ROW) to reduce habitat fragmentation. By utilizing existing utility corridors and road ROWs, adverse impacts to fish and wildlife resources would be reduced by avoiding and/or minimizing the impacts to undisturbed habitats. Following property lines and fencelines are not minimization measures generally recommended by TPWD because many property lines and fencelines do not typically contribute to existing habitat fragmentation. Please review the *TPWD Recommendations for Electrical Transmission/Distribution Line Design and Construction*, which can be found at

[http://www.tpwd.texas.gov/huntwild/wild/wildlife\\_diversity/habitat\\_assessment/media/tpwd\\_electrical\\_transmission.pdf](http://www.tpwd.texas.gov/huntwild/wild/wildlife_diversity/habitat_assessment/media/tpwd_electrical_transmission.pdf), and incorporate the measures into design and construction plans, where feasible.

#### **Response to Recommendation #1**

New construction is the only feasible option for the proposed project. Brazos Electric considers routing factors outlined by the Public Utility Commission of Texas (PUC) in PURA §37.056 and PUC Substantive Rule §25.101, as well as Brazos Electric's standard routing factors, as listed in Section 3.7 of the ER. Additional factors



considered by Cox|McLain Environmental Consulting, Inc., Brazos Electric's routing consultant, are also listed in Section 3.7 of the ER. During routing, attempts are made to place the transmission line routes along existing utility corridors and road ROWs as much as possible; however, it is not possible to avoid utilizing property lines and fencelines in some instances. Although it is not possible to avoid all impacts, we have tried to minimize habitat fragmentation and impacts to natural resources as much as possible, while still avoiding habitable structures and minimizing impacts to land uses which may exhibit incompatibility with transmission lines, such as airports/airstrips/heliports, surface irrigation, parks and recreation areas, and communication towers.

## **Recommendation #2**

TPWD recommends Brazos Electric route transmission lines to avoid crossing riparian areas, wetlands, and open water habitat, to the extent feasible. Where lines must cross or be located near creeks, drainage, wetlands, and lakes, TPWD recommends line markers be installed at the crossings or closest points to the drainages to reduce potential collisions by birds flying along or near the drainages. To prevent electrocution or perching raptors, raptor protection measures such as adequate conductor spacing, perch guards, and insulated jumper wires should also be used.

For additional information, please see the guidelines published by USFWS and the Avian Power Lines Interaction Committee (APLIC) in the updated state-of-the-art 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 U.S. Fish and Wildlife Service (USFWS) in 2006. For more information on both documents, please visit [www.aplic.org](http://www.aplic.org).

## **Response to Recommendation #2**

Minimization of the electrocution of raptors and other birds is addressed in Section 4.6. Topography, vegetation, and proximity are important factors considered by Brazos Electric during pre-construction planning to mitigate collisions of raptors and other birds with transmission lines, substations, switching stations, and associated ancillary equipment. In order to reduce raptor electrocutions, transmission lines and support structures will be designed and constructed in accordance with *Suggested Practices for Raptor Protection on Power Lines* (2006) and *Reducing Avian Collisions with Power Lines: State of the Art in 2012* by the Avian Power Line Interaction Committee. Further, Brazos Electric is committed to following raptor protection procedures as outlined in *Mitigating Bird Collisions with Power Lines*, a publication of the Avian Power Line Interaction Committee for the Edison Electric Institute (1994).

## **Recommendation #3**

If rookeries or heronries are identified within the study area or in the vicinity of a route, TPWD recommends a primary buffer area of 300 meters (984 feet) from the heronry periphery to avoid any vegetation clearing as a protection measure to protect the heronry and its habitat. TPWD recommends re-routing, adjusting, or





narrowing transmission line ROW to avoid clearing within this buffer area. Utilizing areas that have already been cleared within this buffer area may be acceptable depending on site-specific characteristics. Additionally, TPWD recommends that human foot traffic or machinery use not occur within this buffer area during the nesting season.

#### **Response to Recommendation #3**

According to TXNDD data obtained for the project, no rookeries or heronries have been reported to occur within the study area. No rookeries or heronries were observed within the project area during the initial site assessment. No impacts to rookeries or heronries are anticipated as a result of the project. If, however, a rookery or heronry is identified within the project area, Brazos Electric will attempt to minimize impacts to it, following TPWD's recommendations as much as practicable. TPWD's recommendations were included in Section 4.6 of the ER.

#### **Recommendation #4**

TPWD recommends a secondary buffer area of 1,000 meters (3,281 feet) from the heronry periphery to avoid clearing activities or construction using heavy machinery during the breeding season (courting and nesting).

#### **Response to Recommendation #4**

See Response to Recommendation #3. TPWD's recommendation has been included in Section 4.6 of the ER.

#### **Recommendation #5**

TPWD recommends that route alternatives in the vicinity of lakes and rivers be assessed for nesting, foraging, or roosting habitat for the Bald Eagle. For protection of Bald Eagles, please refer to the USFWS National Bald Eagle Management Guidelines <http://www.fws.gov/midwest/eagle/guidelines/index.html>. When potential impacts to the Bald Eagle are anticipated, TPWD recommends consultation with USFWS – Arlington Ecological Services at (817) 277-1100 regarding compliance with the Bald and Golden Eagle Protection Act (BGEPA). TPWD also recommends consultation with TPWD because the Bald Eagle is state listed as threatened.

#### **Response to Recommendation #5**

The BGEPA is addressed in Section 4.6 of the ER. TPWD's recommendations regarding bald eagles have been incorporated into Section 4.5 of the ER. According to TXNDD data obtained for the project, no bald eagles have been reported within the study area. Bald eagles could migrate through the study area, but no nesting or wintering habitat for the species was identified during the initial habitat assessment. A more thorough habitat assessment will be performed for the final route to be selected by the PUCT, after right-of-entry is available. If, based on that assessment, any potential impacts to bald eagles are identified, then Brazos Electric would consult with USFWS and TPWD.



#### **Recommendation #6**

TPWD recommends that the ER identify the federally listed and candidate species with potential to occur within the study area. TPWD recommends Brazos Electric conduct site surveys of the route alternatives to identify suitable habitat for federally listed species, to assess potential impacts to federally listed species, and to determine route adjustments to avoid or minimize adverse impacts to federally listed and candidate species.

#### **Response to Recommendation #6**

Federally listed and candidate species with the potential to occur within the study area are addressed in Section 4.5 of the ER. As discussed in that section, initial assessment of the study area did not identify potential habitat for any federally listed species, and impacts to federally listed species are not anticipated. That assessment was limited to what could be viewed from publicly accessible areas, such as roads, as right-of-entry was not available for private properties. A more thorough habitat assessment will be performed for the final route to be selected by the PUCT, after right-of-entry is available.

#### **Recommendation #7**

If impact to a federally listed species is anticipated, TPWD recommends that Brazos Electric consult with USFWS-Arlington Ecological Services pursuant to the Endangered Species Act (ESA). The USFWS should be contacted for additional species occurrence data, guidance, permitting, survey protocols, and mitigation for federally listed species.

#### **Response to Recommendation #7**

As mentioned in the Response to Recommendation #6 above, impacts to federally listed species are not anticipated. The USFWS was contacted as part of the agency scoping process, and copies of correspondence with the USFWS are included in Appendix A of the ER. If the habitat assessment for the final route to be selected by the PUCT identifies any potential impacts to federally listed species, then Brazos Electric would initiate further consultation with the USFWS.

#### **Recommendation #8**

TPWD recommends that Brazos Electric avoid locating lines near areas that may provide potential stopover habitat for Whooping Cranes during migration. TPWD recommends that areas of proposed transmission line routes be evaluated for potential Whooping Crane migration stopover habitat. Areas of potential stopover habitat should be considered as avoidance areas for proposed lines to reduce potential collisions and not minimize potential impacts to this endangered species. For additional information regarding the Whooping Crane and threats to this species, please contact Dr. Wade Harrell, the USFWS Whooping Crane Recovery Coordinator at (361) 286-3559.



### **Response to Recommendation #8**

TPWD's recommendations regarding whooping cranes have been incorporated into Section 4.5 of the ER, along with the following information: The project study area is located within the migratory path of the whooping crane; however, the species has not been reported to occur there (according to TXNDD data obtained for the study area). Further, the study area lacks the species' preferred feeding or roosting areas. Lake Lewisville property would provide the most likely potential stopover sites for the whooping crane; however, none of the proposed transmission line routes would cross USACE Lake Lewisville property. The whooping crane would not be affected by the proposed project.

### **Recommendation #9**

If the proposed project would impact waterways or associated wetlands, TPWD recommends consulting with the Regulatory Branch of the Fort Worth District of the U.S. Army Corps of Engineers (USACE) at (817) 886-1731 pursuant to the Clean Water Act (CWA), including jurisdictional determinations, delineations, and mitigation. Waterways, floodplains, riparian corridors, lakes, and wetlands provide valuable wildlife habitat and TPWD recommends protecting them to the maximum extent possible. TPWD recommends allowing natural buffers contiguous to wetlands or aquatic systems to remain undisturbed to preserve wildlife cover, food sources, and travel corridors. During construction, trucks and equipment should use existing bridges to cross creeks. TPWD recommends avoiding disturbance to inert microhabitats in waterways such as snags, brush piles, fallen logs, creek banks, pools, and gravel stream bottoms, as these provide habitat for a variety of fish and wildlife species and their food sources. Erosion control measures should be installed prior to construction and maintained until disturbed areas are permanently revegetated using site specific native vegetation.

### **Response to Recommendation #9**

Coordination with the USACE, including the Lake Lewisville manager, has been undertaken, and communication between Brazos Electric and the USACE may be found in Appendix D of the ER. TPWD's recommendations regarding reducing impacts to waterways, floodplains, riparian corridors, lakes, and wetland habitats have been included in Section 4.6 of the ER.

### **Recommendation #10**

TPWD recommends that Brazos Electric ensure protection of state listed freshwater mussels during construction activities by avoiding placement of temporary fills or culverts into waters serving as suitable habitat for state listed freshwater mussels. TPWD recommends designing routes to avoid placement of permanent structures in streams and other waters. If construction occurs during times when water is present in streams and dewatering, fill, or trampling activities are involved, then TPWD recommends relocating potentially impacted native aquatic resources in conjunction with a *Permit to Introduce Fish, Shellfish, or Aquatic Plants into Public Waters* and an Aquatic Resource Relocation Plan (ARRP). The ARRP should be completed and approved by the department 30



days prior to dewatering and/or resource relocation and submitted with an application for a no-cost *Permit to Introduce Fish, Shellfish, or Aquatic Plants into Public Waters*. ARRs can be submitted to Greg Conley or Adam Whisenant, TPWD Region 2 KAST> Please contact Greg Conley at 903-566-2518 or [Greg.Conley@tpwd.texas.gov](mailto:Greg.Conley@tpwd.texas.gov) or Adam Whisenant at 903-566-8387 or [Adam.Whisenant@tpwd.texas.gov](mailto:Adam.Whisenant@tpwd.texas.gov) for more information or to initiate coordination.

#### **Response to Recommendation #10**

State listed freshwater mussels are addressed in Section 4.5 of the ER. The Louisiana pigtoe and Texas heelsplitter could occur within project area streams; however, the transmission line would span the streams, and impacts to streams would be avoided. Best Management Practices would be utilized to minimize water quality impacts. In accordance with TPWD recommendations, Brazos Electric would ensure protection of state listed mussel species during construction by avoiding placement of temporary fills into waters serving as suitable habitat for these species. No culverts are proposed. Routes would be designed such that the placement of structures into streams or other waters would be avoided as much as possible. If impacts to habitat for state listed freshwater mussels becomes necessary (and if construction occurs during times when water is present in streams and dewatering, fill, or trampling activities are involved), then the appropriate TPWD permits would be acquired in order to relocate impacted aquatic resources, in accordance with TPWD recommendations.

#### **Recommendation #11**

TPWD recommends that the ER identify the state listed species with potential to occur within the study area. TPWD recommends Brazos Electric conduct site surveys of the route alternatives to identify suitable habitat for state listed species, to assess potential impacts to state listed species, and to determine route adjustments to avoid or minimize adverse impacts to state listed species that are identified on the TPWD list for Denton County.

#### **Response to Recommendation #11**

State listed species with the potential to occur within the study area are addressed in Section 4.5 of the ER. As discussed in that section, initial assessment of the study area identified potential habitat for state listed species, including the Texas horned lizard, timber rattlesnake, white-faced ibis, wood stork, and the mussels discussed in the Response to Recommendation #10 above. That assessment was limited to what could be viewed from publicly accessible areas, such as roads, as right-of-entry was not available for private properties. A more thorough habitat assessment will be performed for the final route to be selected by the PUCT, after right-of-entry is available. Impacts to state listed species, if they are observed within the project area during construction, will be avoided. If state listed species are observed during construction, they would be allowed to safely leave the site or would be relocated by a permitted individual to a nearby area with similar habitat that would not be disturbed by construction.



#### **Recommendation #12**

Because snakes are generally perceived as a threat and killed when encountered during clearing or construction, TPWD recommends Brazos Electric inform employees and contractors of the potential for the state listed threatened Timber rattlesnake (*Crotalus horridus*) to occur in the study area. Contractors should be advised to avoid impacts to this and other snakes. Compared to other rattlesnakes, the Timber rattlesnake is a rather docile species. Injury to humans usually occurs when the snake becomes agitated following harassment or when someone attempts to handle a recently dead snake that still contains its bite reflex. Therefore, contractors should avoid contact with the species if encountered and allow the snake to safely leave the premises. Please note that this snake and other state listed species may only be handled by persons permitted through the TPWD Wildlife Permits Office.

#### **Response to Recommendation #12**

As stated in the Response to Recommendation #11, impacts to individuals of state listed species (including the timber rattlesnake), if they are observed within the project area during construction, will be avoided. If state listed species are observed during construction, they would be allowed to safely leave the site or would be relocated by a permitted individual to a nearby area with similar habitat that would not be disturbed by construction. Brazos Electric would inform employees and contractors of the potential for the timber rattlesnake to occur within the project area, and the potential for injury that could result from handling, as recommended; this information has been included in Section 4.5 of the ER.

#### **Recommendation #13**

For soil stabilization and/or revegetation of disturbed areas within the proposed project area, TPWD recommends erosion and seed/mulch stabilization materials that avoid entanglement hazards to snakes and other wildlife species. Because the mesh found in many erosion control blankets or mats pose an entanglement hazard to wildlife, particularly snakes, TPWD recommends the use of no-till drilling, hydromulching, and/or hydroseeding rather than erosion control blankets or mats due to a reduced risk to wildlife. If erosion control blankets or mats will be used, the product should contain no netting or contain loosely woven, natural fiber netting in which the mesh design allows the threads to move, therefore allowing expansion of the mesh openings. Plastic mesh matting should be avoided.

#### **Response to Recommendation #13**

TPWD's recommendations regarding erosion control materials have been included in Section 4.6 of the ER.

#### **Recommendation #14**

TPWD recommends Brazos Electric survey the project area to determine the potential of the site to support state listed species or their habitat, including the Texas horned lizard. Please be aware that species not occurring



during site surveys may utilize the habitat within the project area at times beyond those during which the survey was conducted, such as seasonally or nocturnally.

#### **Response to Recommendation #14**

As stated in the Response to Recommendation #11, state listed species with the potential to occur within the study area are addressed in Section 4.5 of the ER. That assessment was limited to what could be viewed from publicly accessible areas, such as roads, as right-of-entry was not available for private properties. A more thorough habitat assessment will be performed for the final route to be selected by the PUCT, after right-of-entry is available.

#### **Recommendation #15**

If the site is found to contain unavoidable habitat of the Texas horned lizard, then TPWD recommends a biological monitor be present during clearing and construction activities to relocate Texas horned lizards encountered during construction. 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.

#### **Response to Recommendation #15**

As stated in the Response to Recommendation #11, impacts to state listed species (including the Texas horned lizard), if they are observed within the project area during construction, will be avoided. If state listed species are observed during construction, they would be allowed to safely leave the site or would be relocated by a permitted individual to a nearby area with similar habitat that would not be disturbed by construction.

#### **Recommendation #16**

TPWD recommends that the ER identify impact avoidance and minimization measures that would be employed to protect state listed species that may occur within the study area.

#### **Response to Recommendation #16**

TPWD's recommendations regarding avoidance of impacts and minimization measures have been incorporated into Section 4.5 of the ER. In accordance with PUCT routing criteria, the proposed transmission line alternatives were routed along and within existing rights-of-way as much as practicable. Some native grassland and woodland areas, including riparian areas associated with creeks, could be crossed by the transmission line depending on the alternative selected. No forests would be crossed by the proposed project. The possibility of avian collisions would be reduced as much as possible, as discussed in Section 4.6 of the ER. No sensitive species or habitats were identified within the right-of-way during field investigations. Disturbed areas within the right-of-way would be revegetated within native species as much as practicable following construction, as discussed in Section 4.7 of the ER.



#### **Recommendation #17**

TPWD recommends avoiding lands owned or managed for conservation or recreation by county, city, state, and/or federal entities such as the USFWS, USACE, US Department of Agriculture Forest Service, and the Texas Historical Commission. Such entities should be contacted early in the planning process to determine if a transmission line may impact their property.

#### **Response to Recommendation #17**

Parks and formally classified lands are discussed in Section 4.1 of the ER. Although a number of parks and managed areas occur within the study area, none of them would be crossed by project alternatives. Coordination with federal, state, and local government agencies has taken place (see Section 3.5, Section 3.9, and Appendix D of the ER).

#### **Recommendation #18**

TPWD recommends properties protected by conservation easements be identified in the constraints analysis and avoided during development of alternative routes. Data sources for the location of these properties include online databases such as the Protected Areas Data Portal at <http://gapanalysis.usgs.gov/padus/> and the National Conservation Easement Database at <http://conservationeasement.us/>, although these data sources are incomplete and county records may need to be referenced to determine the location of properties with conservation easements. If properties protected by conservation easements would be affected, TPWD recommends the length of routes through these properties be included in any accounting of alternative route impacts presented in the ER.

#### **Response to Recommendation #18**

Conservation easements are addressed in Section 4.1 of the ER, in the discussion of parks and formally classified lands. None of the proposed transmission line alternatives are routed across lands known to be enrolled in conservation easements.

#### **Recommendation #19**

For protection of natural resources, TPWD recommends Brazos Electric avoid routing through sites that are enrolled in conservation easements through governmental or non-governmental conservation organizations. TPWD also recommends avoiding impacts to existing mitigation banks if they occur within the study area.

#### **Response to Recommendation #19**

See Response to Recommendation #18. No mitigation banks are known to occur within the study area, and none of the proposed transmission line alternatives impact any known mitigation banks.



#### **Recommendation #20**

TPWD recommends that precautions be taken to avoid impacts to Species of Greatest Conservation Need (SGCN), natural plant communities, native pasture, or special features when developing alternative routes and if encountered in the project ROW during construction and maintenance. Areas exhibiting a native grass and forbs component should be protected from disturbance and from introduction of non-native vegetation during construction, maintenance, and operation activities. Individual rare plants or areas found to contain rare plants should be clearly marked as avoidance areas prior to construction, maintenance, and operation activities.

#### **Response to Recommendation #20**

TXNDD data did not indicate recorded occurrences of any rare/remnant plant communities within the project study area. TPWD's recommendations regarding precautions to avoid impacts to SGCNs have been included in Section 4.5 of the ER. These will be incorporated into the project as much as practicable. A more thorough investigation of the final route would be undertaken, and if rare plants are identified, they would be protected as feasible. Disturbance would be minimized to the greatest extent practicable, which would minimize the establishment of invasive species.

#### **Recommendation #21**

If native grassland remnants cannot be avoided by the proposed project activities, please contact TPWD to determine if prairie plants can be salvaged with assistance from our local Dallas-Fort Worth partners including the Texas Master Naturalist program, Fort Worth Nature Center, the Native Prairies Association of Texas, and the Botanical Research Institute of Texas.

#### **Response to Recommendation #21**

No native grassland remnants have been reported within the study area, according to TXNDD data. If any native grassland remnants are identified within the ROW during the habitat assessment that will be performed for the route to be selected by the PUCT, then TPWD would be contacted to determine the best course of action.

#### **Recommendation #22**

TPWD recommends incorporating land classification information from the Ecological Mapping Systems of Texas (EMST) into the ER to assist with avoiding, minimizing or mitigating impacts to habitats in the area. For assistance with EMST, please contact Ms. Amie Treuer-Kuehn of the TPWD GIS Lab at [Amie.Treuer-Kuehn@tpwd.texas.gov](mailto:Amie.Treuer-Kuehn@tpwd.texas.gov).

#### **Response to Recommendation #22**

EMST information has been incorporated into Section 4.7 of the ER and is shown on Figure 10.





**Recommendation #23**

TPWD recommends minimizing impacts to native vegetation during project design and construction. Areas exhibiting bottomland/riparian hardwood forests should be avoided to the extent feasible. TPWD recommends avoiding sensitive ecological areas, woodlands, and major stream corridors by widely buffering them from placement of the proposed transmission line and by routing through lower-quality habitat that has been converted to introduced pasture for livestock or has been previously fragmented by other development. TPWD recommends revegetating areas disturbed by project activities with site-specific native species to mitigate for unavoidable loss of native vegetation including pollinator species. Species appropriate for the study area can be found by accessing the Lady Bird Johnson Wildflower Center at <http://www.wildflower.org/collections/>.

**Response to Recommendation #23**

As stated in Section 4.7 of the ER, impacts to native vegetation, including riparian woodlands, would be avoided and minimized to the extent feasible during project design and construction. Efforts have been made to avoid routing the proposed transmission line through sensitive ecological areas, woodlands, and major stream corridors as much as practicable. Areas disturbed by project activities would be revegetated with native species.

**Recommendation #24**

TPWD recommends revegetation efforts include planting or seeding native milkweed (*Asclepias* spp) and nectar plants as funding and seed availability allow and scheduling ROW maintenance to occur once the seed from pollinator plants has been released.

**Response to Recommendation #24**

TPWD's recommendations regarding native milkweed have been incorporated into Section 4.7 of the ER.

Per your request, a copy of the Application for Certificate of Convenience and Necessity will be submitted to TPWD upon its submittal to the Public Utility Commission of Texas. If you need any further information or wish to discuss the project, please contact me at (469) 647-4866 or [christine@coxmcclain.com](mailto:christine@coxmcclain.com).

Sincerely,

Christine Polito  
Senior Ecologist

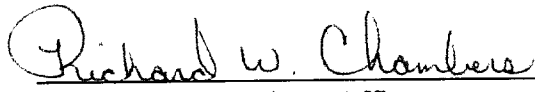
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**AFFIDAVIT**  
Docket No. 45170


STATE OF TEXAS           §  
                                     §  
COUNTY OF McLENNAN §

I, Richard W. Chambers, being duly sworn, state that I am the Senior Regulatory Coordinator of Brazos Electric Power Cooperative, Inc., (Brazos Electric), and in such capacity I am qualified to make this affidavit.

On September 25, 2015, a copy of the Environmental Report was provided to the Texas Parks and Wildlife Department at the required address in Austin, Texas, and a copy of the transmittal letter is attached to this CCN application as Attachment No. 4, and incorporated by reference for all purposes.

  
Richard W. Chambers, Affiant  
Senior Regulatory Coordinator

SUBSCRIBED AND SWORN TO BEFORE ME, by the said Richard W. Chambers, on this the 29<sup>th</sup> day of SEPTEMBER, 2015.

  
Notary Public, State of Texas



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**Attachment No. 5 – Affidavit**

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# AFFIDAVIT

Docket No. 45170, Attachment No. 5

STATE OF TEXAS §  
§  
COUNTY OF McLENNAN §

I, Richard W. Chambers, being duly sworn, state that I am the Senior Regulatory Coordinator of Brazos Electric Power Cooperative, Inc., (Brazos Electric), and in such capacity I am qualified to make this affidavit. I am authorized by Brazos Electric to verify and affirm that to the best of my knowledge, all information provided, statements made, and matters set forth in this CCN application and attachments are true and correct.

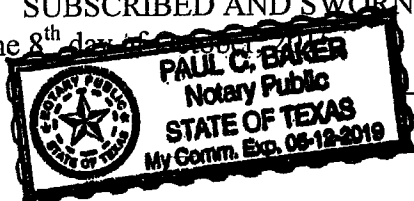
I further state that I have personal knowledge of all information contained in the CCN application, including the maps and exhibits filed with the CCN application, and that Brazos Electric has complied with all the requirements contained in the CCN application. I am a custodian of Brazos Electric's records for this CCN application (the Records). These Records were kept by Brazos Electric in the regular course of business; and it was the regular course of business of Brazos Electric for its employee or representative, with knowledge of the Records and the CCN application, to make the Records or transmit information thereof to be included in such Records. The Records were made at or near the time or reasonably soon thereafter, and the Records are the originals or exact duplicates of the originals.

I further state that the CCN application is made in good faith, that notice of its filing was given by letters on October 8, 2015, mailed by United States first class mail to: (i) all persons listed as an owner of land, as stated on the current county tax roll(s), directly affected by the requested certificate, including all routes of the proposed facilities, said persons and a representative copy of the letter sent to them are attached as Attachment No. 11 and incorporated by reference for all purposes, (ii) all municipalities within five miles of the requested facilities, neighboring utilities providing the same utility service within five miles of the requested facilities, said entities and a representative copy of the letter sent to them are attached as Attachment No. 11, and incorporated by reference for all purposes, and (iii) the county government of all counties in which any portion of the proposed facilities are located, said entities and a representative copy of the letter sent to them are attached as Attachment No. 11, and incorporated by reference for all purposes, and that this CCN application does not duplicate any filing presently before the Public Utility Commission of Texas. I further state that formal and informal contact between Brazos Electric and some of the affected landowners has occurred.

Richard W. Chambers

Richard W. Chambers, Affiant  
Senior Regulatory Coordinator

SUBSCRIBED AND SWORN TO BEFORE ME, by the said Richard W. Chambers, on  
this the 8<sup>th</sup> day of October, 2015.



Paul C. Baker  
Notary Public, State of Texas

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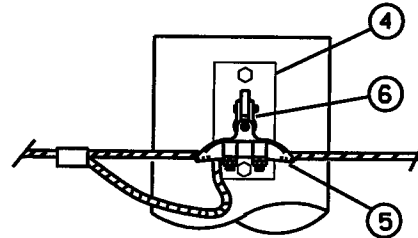
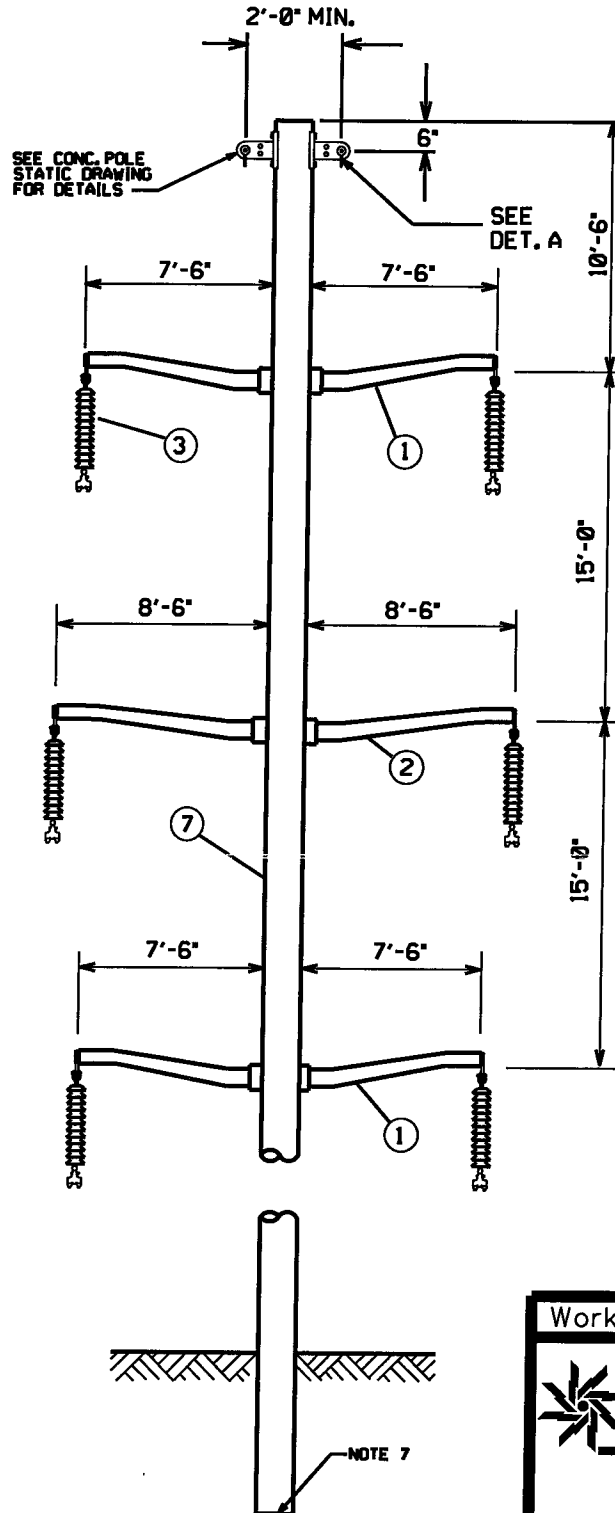


**Figure No. 1 – Dimensional Drawings of Typical Structures**

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# LIST OF MATERIALS

ORG. REF.	QTY	DESCRIPTION	DETAIL	LGTH REQ'D	BEPC STK NO.
1	4	STEEL ARM ASS'Y HEAVY DUTY (NOTE 8)	BTM-115S.1	7'-6"	
2	2	STEEL ARM ASS'Y HEAVY DUTY (NOTE 8)	BTM-115S.1	8'-6"	
3	6	INSULATOR ASSEMBLY, TANGENT	(NOTE 6)		
4	-	OHGW SUPPORT ASSEMBLY			
5	2	OHGW ASSEMBLY, TANGENT	BTM-4A		
6	2	ANCHOR SHACKLE (BEPC TYPE AS-30-L-BNK OR AS-40-BNK)	BTM-120A		1245-13-32
7	1	CONCRETE POLE, TANGENT STRUCTURE, DBL CIRCUIT	(NOTE 8)		



**DETAIL A**

## NOTES

- DIMENSIONS SHOWN ARE TO POINTS OF CONNECTION.
- POLE TO HAVE BOLT ON TOP.
- BACKFILL UNITS, BTM 101, 102, 103, OR 103C AS SPECIFIED ON THE PLAN AND PROFILE DRAWINGS. PACK AND FILL WILL BE EITHER TAPPED SELECT BACKFILL OR CONCRETE AS REQUIRED.
- THE FOLLOWING MATERIALS ARE TO BE SPECIFIED ON THE PLAN & PROFILE DRAWINGS AND STAKING SHEETS: POLES, POLE GROUNDING ASSEMBLY, AND ANY ADDITIONAL GROUNDING OR POLE FOUNDATION UNITS.
- HARDWARE REFERENCE DRAWINGS BTM-120A & BTM-4A.
- SEE INSULATOR REQUIREMENT SUMMARY FOR INSULATOR DETAIL DRAWING REFERENCE.
- BEARING PLATE SURFACE AREA SHALL BE ADEQUATE TO SUPPORT POLE WEIGHT PLUS IMPOSED LOADS W/ SAFETY FACTORS.
- SEE CONC. MANUFACTURES DRAWINGS FOR DETAILS.
- ALL BOLTS, NUTS, WASHERS, BEARING PLATES, OHGW SUPPORT ASSEMBLIES (ITEM 4) AND ARMS (ITEMS 1 & 2) FOR THIS STRUCTURE SHALL BE PROVIDED BY THE POLE SUPPLIER. FIELD ASSEMBLY SHALL BE COMPLETED BY THE CONTRACTOR.
- SEE ARM CONFIGURATION AND ADDITIONAL ARM LOADS ON DRAWING BTM-115S.1.
- PROVISION FOR BOLTING ARMS TO POLE MUST ALLOW REMOVAL OF ONE PHASE WITHOUT RELEASING INSULATOR OF OPPOSITE PHASE.

Work Order/Job No.:

File No.:



**DBL CIRCUIT CONCRETE  
TANGENT STRUCTURE**

STEEL EQUIVALENT  
138 KV TRANSMISSION LINE

Scale: NONE  
Date: 6/21/93  
Drawn: CHAMBERS / GERIK  
Checked: B. CHANDLER  
Approved: L. PLEMONS  
Print: \_\_\_\_\_

Dwg. No.:

**TUSC-2DCE**

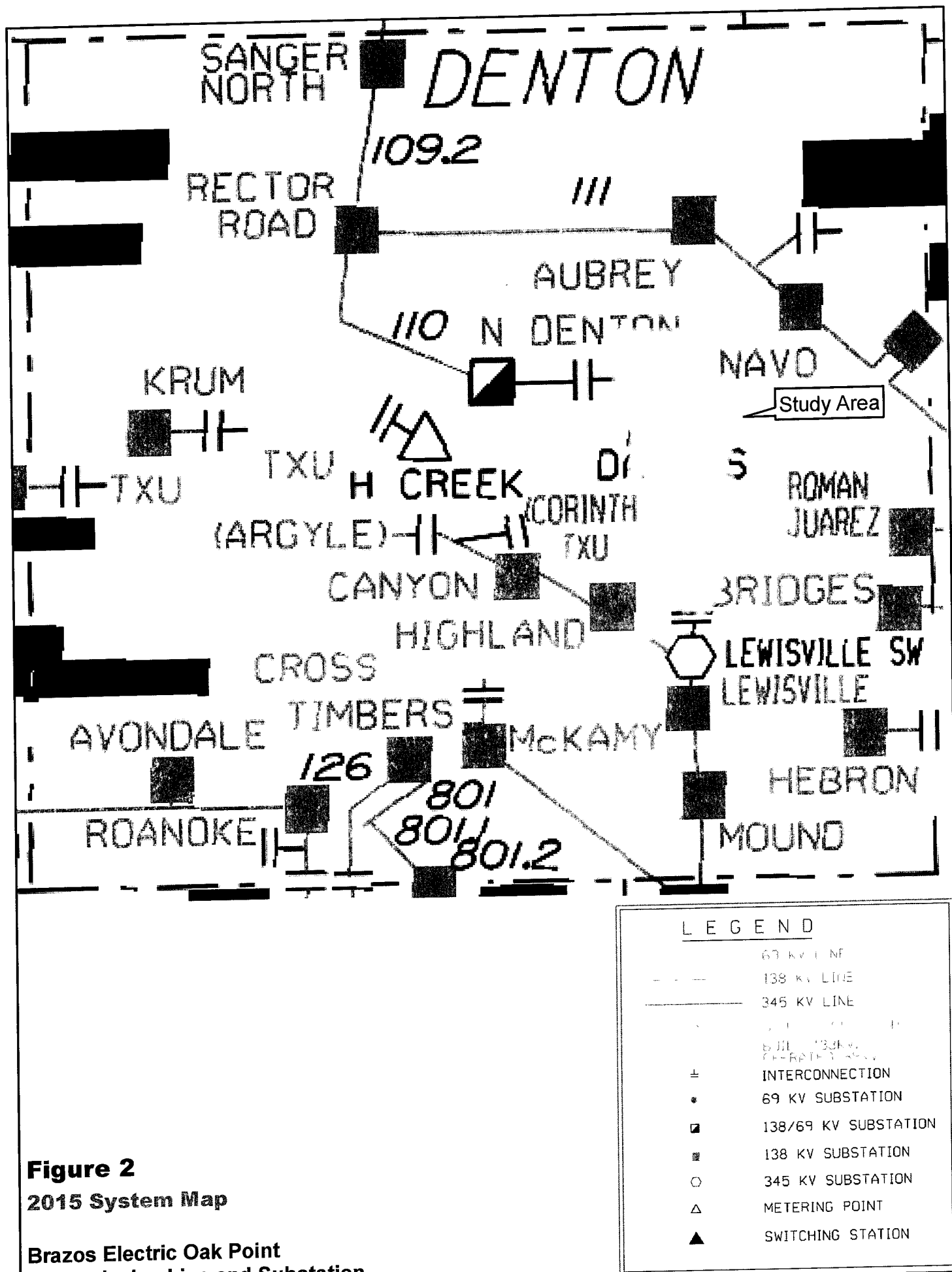
REV. 03/27/06

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**Figure No. 2 – Diagram Depicting Brazos Electric Transmission System**

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# **Application for a Certificate of Convenience and Necessity**

**Oak Point Transmission Line and Substation Project**

**Public Utility Commission of Texas Docket No. 45170**

**Brazos Electric Power Cooperative, Inc.**

**Certificate No. 30016**



**Submitted October 8, 2015**

**Volume 2**

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