

Schedule DW-1

****Public****



Routing Study and Environmental Report



NextEra Energy Transmission Southwest, LLC

**Wolf Creek - Blackberry 345-kV Transmission Line Project
Project No. 119960**

Routing Study and Environmental Report

prepared for

**NextEra Energy Transmission Southwest, LLC
Wolf Creek - Blackberry 345-kV Transmission Line Project**

Project No. 119960

prepared by

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LIST OF ABBREVIATIONS

<u>Abbreviation</u>	<u>Term/Phrase/Name</u>
AECI	Associated Electric Cooperative, Incorporated
APLIC	Avian Power Line Interaction Committee
ASR	Antenna Structure Registration
BMP	Best Management Practice
BNSF	Burlington Northern Santa Fe Railroad
CRP	Conservation Reserve Program
CWA	Clean Water Act
DASC	Kansas Data Access and Support Center
DWR	Kansas Division of Water Resources
EDGE	Education Demographic and Geographic Estimates
ESA	Endangered Species Act
EPA	U.S. Environmental Protection Agency
FAA	Federal Aviation Administration
FCC	Federal Communications Commission
FEMA	Federal Emergency Management Agency
GAP	Gap Analysis Project
GIS	Geographic Information System
gNATSGO	Gridded National Soil Survey Geographic Database
GNIS	Geographic Names Information System
IPaC	Information for Planning and Consultation
KCS	Kansas City Southern Railroad

KDHE	Kansas Department of Health and Environment
KDOT	Kansas Department of Transportation
KDWP	Kansas Department of Wildlife and Parks
kV	kilovolt
MDC	Missouri Department of Conservation
MDNR	Missouri Department of Natural Resources
mgd	million gallons per day
NAIP	National Agriculture Imagery Program
NASR	National Airspace System Resource
NASS	National Agricultural Statistics Service
NCED	National Conservation Easement Database
NEET Southwest	NextEra Energy Transmission Southwest, LLC
NHD	National Hydrology Dataset
NITU	Notice of Interim Trail Use
NPDES	National Pollutant Discharge Elimination System
NPS	National Park Service
NRCS	Natural Resources Conservation Service
NRHP	National Register of Historic Places
NWI	National Wetland Inventory
PADUS	Protected Areas Database of the U.S.
Q&A	Question and answer
ROW	right-of-way
SHPO	State Historic Preservation Office

SKOL	South Kansas and Oklahoma Railroad
SPP	Southwest Power Pool
TERPS	Terminal Instrument Procedures
THPO	Tribal Historic Preservation Office
UP	Union Pacific Railroad
U.S.	United States
USACE	U.S. Army Corps of Engineers
USDA	U.S. Department of Agriculture
USDOT	U.S. Department of Transportation
USEIA	U.S. Energy Information Administration
USFS	U.S. Forest Service
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey
WRP	Wetland Reserve Program

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1.0 INTRODUCTION AND PROJECT DESCRIPTION

In order to provide reliable electric service to the region and to meet the needs identified by the Southwest Power Pool, Inc. (SPP), NextEra Energy Transmission Southwest, LLC (NEET Southwest) proposes to design, build, and operate a new transmission line – the Wolf Creek to Blackberry 345-kilovolt (kV) Transmission Line Project (Project). The Project will connect Evergy, Inc’s (Evergy) existing Wolf Creek Substation to Associated Electric Cooperative’s (AECI) existing Blackberry Substation. The Project Study Area is in the following counties: Allen, Anderson, Bourbon, Cherokee, Coffey, Crawford, Neosho, and Woodson counties in Kansas, and Barton and Jasper counties in Missouri. The Project is needed to address the needs identified by SPP in its 2019 Integrated Transmission Planning Report to increase transmission capability in Kansas and Missouri.

NEET Southwest retained Burns & McDonnell to assist with the line routing for the Project. Burns & McDonnell assisted with the selection of routing alternatives and the preparation of this routing study and environmental report. This document contains a summary of the route identification and preferred route selection process, as well as the potential environmental impacts along the selected route.

The following chapters include a description of the Project, including the need for the Project (Chapter 1.0) and a description of the existing environmental and social conditions in the Study Area (Chapter 2.0). The analysis of routing alternatives is described in Chapter 3.0. Potential environmental impacts of the proposed Project are discussed in Chapter 4.0 and proposed mitigation measures are described in Chapter 5.0. Public involvement activities are summarized in Chapter 6.0, recent project modifications are summarized in Chapter 7.0, and references are provided in Chapter 8.0.

1.1 Description of the Project

To construct and operate a connection between the existing Wolf Creek Substation with the existing Blackberry Substation, NEET Southwest will require the construction of up to approximately 100 miles of 345-kV transmission line within an approximately 150-foot-wide easement. The easement width will be sufficient to provide the necessary configuration for the new line. The proposed line will be owned and operated by NEET Southwest. Alternative routes have been identified, and a preferred route was selected based on a route analysis process. The analysis is described in Chapter 3.0.

1.1.1 Purpose and Necessity

The continued integration of wind generation in SPP’s western region has led to a need for additional transmission capacity capable of supporting bulk power transfers to the east. SPP’s assessment of electric

energy requirements has identified the need to build a new 345-kV transmission line to relieve heavy congestion, increase reliability, and improve the transfer of bulk power to the east (SPP, 2019).

Currently, there are approximately five major transmission lines in the area roughly bounded by United States (U.S.) Highway 75, the Neosho County boundary, and Udall Road on the west, 18th Road on the north, the Kansas / Missouri state line and State Highway 43 on the east, and State Highway 103 / Weir Road on the south (the “Study Area”). The Study Area is approximately 1,643,130 acres in size, extending approximately 70 miles both east to west and north to south. Currently 2 large power plants, 32 different substations, and numerous transmission and distribution circuits direct power within this area.

1.1.2 Location

The Study Area is located in southeast Kansas and southwest Missouri and includes at least portions of the following counties: Allen, Anderson, Bourbon, Cherokee, Coffey, Crawford, Neosho, and Woodson counties in Kansas, and Barton and Jasper counties in Missouri. Due to the size of the Study Area, none of the counties comprise more than 25 percent of the Study Area. However, most of the Study Area will be located in Crawford, Bourbon, Allen, Anderson, and Coffey counties. Figure 1-1 shows the region in which the Study Area is located.

1.1.3 Structures

Transmission line structures will consist of steel or concrete monopoles and guyed or self-supporting monopole structures for most of the new line. Ground clearance will meet or exceed the National Electrical Safety Code requirements for a 345-kV transmission line. Typical above-ground heights for the new structures will be approximately 110 to 130 feet, depending on the type of structure required. The structures will be spaced approximately 800 to 1,000 feet apart. Heights and spans may vary depending on the design, terrain, or measures to mitigate potential impacts of the line.

1.1.4 Right-of-Way

The route alternatives evaluated for the proposed Project will require an approximately 150-foot-wide right-of-way (ROW) to accommodate the transmission structures.

Doyle Land Services (Doyle) was selected by NEET Southwest to provide ROW acquisition strategies, programs, and procedures.

Figure 1-1: Regional Map



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NEET Southwest's land agents will work with individual property owners to purchase easements for the new line. NEET Southwest pays fair market value for easements, and landowners retain ownership of the property with some limitations on the use of the land in the ROW. Under the agreement, property owners cannot place any permanent structures that would interfere with the conductors or restrict complete access for maintenance of the transmission line or ROW within the corridor.

1.2 Construction, Operation, and Maintenance

The transmission line will be constructed in several phases using both rubber-tired and track equipment. In environmentally sensitive areas, float track equipment may also be used during construction of the line. The appropriate materials will be delivered to each structure location for assembly. Holes for direct pole embedment or concrete foundations for structures will be dug with an auger, and the structures will be erected using a crane. Afterwards, the holes will be backfilled with crushed rock or flowable concrete, and any excess soil will be evenly distributed around each structure. The surrounding soil will then be stabilized. In wetland areas (if any), the method used for the installation of structures will depend on the nature of the sub-surface conditions. Excess soil from the holes in wetland areas will be transported to upland areas and stabilized. No concrete foundations are anticipated in wetlands. Conductors will be pulled through each structure using tensioning equipment. Danger trees will also be removed along the corridor. Danger trees are trees outside the cleared corridor that are tall enough to potentially impact the transmission line should the trees fall into the ROW.

Maintaining the ROW under, and immediately adjacent to, transmission lines is essential for the reliable operation of the line and public safety. ROW vegetation management will include periodic tree trimming removing danger trees and managing the height of other vegetation within the corridor. NEET Southwest will use an integrated vegetation management approach to include both chemical and limited mechanical control methods to maintain the ROW. Herbicides are the preferred method of maintaining the ROW. The use of herbicides will be applied to individual woody stems using a low volume backpack sprayer. NEET Southwest uses herbicides approved by the U.S. Environmental Protection Agency (EPA) for use on terrestrial and wetland transmission line ROW.

Inspections of the transmission line will occur on a regular basis and utilize both aerial and ground patrols. However, line maintenance would require only infrequent visits by NEET Southwest or its contractors. Most maintenance activities are on an approximate six-year cycle.

1.3 Project Schedule

The projected schedule for the Project is described below:

- Route selection: November 2020 – May 2022
- ROW acquisition: Voluntary negotiations commenced in November 2021 . ROW acquisition will be completed following receipt of all necessary regulatory approvals and permits, including certificates of convenience and necessity and line siting approval from the Kansas Corporation Commission (KCC) and Missouri Public Service Commission (MPSC).
- Construction: Following receipt of all necessary regulatory approvals and permits; estimated to begin in mid-2023
- In-service date: January 1, 2025

1.4 Project Cost

NEET Southwest has estimated a Project cost of \$85.2 million in 2021 dollars, subject to cost containment provisions set forth in NEET Southwest’s bid to SPP. NEET Southwest provides more details on the proposed Project cost in its application and accompanying testimony.

2.0 DESCRIPTION OF THE STUDY AREA

The following describes existing environmental conditions, including the natural and social resources located within the Study Area. The information presented in this chapter was obtained from publicly available data sets and observations made using on-line imagery and field windshield surveys.

2.1 Study Area Identification and Data Collection

The limits of the Study Area were established based on the location of the existing Wolf Creek 345-kV Substation (approximately one mile south of the intersection of 16th Road and Oxen Lane in Coffey County, Kansas), the location of the existing Blackberry 345-kV Substation (southeast of the intersection of Missouri Highway 177 and Sumac Road in Jasper County, Missouri), and a preliminary review of potential routing opportunities and constraints in the Study Area. The Study Area, which encompasses approximately 1,643,130 acres, is shown in Figure 2-1. The Study Area was defined to incorporate the potential Project endpoints while offering an area large enough to provide a set of reasonable and geographically distinct route alternatives.

After the Study Area boundary was identified, the Burns & McDonnell Project team initiated the information gathering process and the identification of environmental and land use constraints within the Study Area. Data was collected from publicly available sources, including federal, state, county, and local agencies. The result of the information gathering process was a constraint map that plotted environmental and land use constraints and was used in identifying preliminary alternative routes. The geographic locations of environmentally sensitive areas, restrictive areas, exclusion areas, land use constraints, etc., within the Study Area, were identified on an aerial photograph base map (Figure 2-2).

2.2 Natural Resources

The following is a description of natural resources in the Study Area that could be affected by the construction and operation of the proposed Project. These resources include physiography, hydrology, vegetation, wetlands, and wildlife. The potential impacts of this Project upon these resources are described in Chapter 4.0.

2.2.1 Topography and Physiography

The Study Area lies entirely within the Prairie Parkland (Temperate) Province, which consists of alternating prairie and deciduous forest with mostly gently rolling plains and steep bluffs bordering some valleys (U.S. Forest Service [USFS], 2015). Elevation changes are generally relatively minimal with only

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Figure 2-1: Study Area



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Figure 2-2: Constraint Map



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a few hundred feet of elevation increase generally extending from the southeastern portion of the Study Area to the northwest. Elevations within the Study Area range from 751 to 1,214 feet above sea level (U.S. Geological Survey [USGS], 2020a).

2.2.2 Soils

Land use patterns in the Study Area are influenced by the suitability and limitations of soil properties for development. The U.S. Department of Agriculture Natural Resources Conservation Service (USDA NRCS, 2018) has surveyed and mapped the soil units in the Study Area counties based on the physical properties and composition of the soil and the amount of slope and drainage where the soil is located. These soil maps are helpful in planning future land use and development.

Soil map units describe the soil characteristics in a specific geographic region. The Study Area consists of 58 different soil map units. The predominant soil map units that make up more than 50 percent of the Study Area include: the Pharoah map unit, comprised of very deep, somewhat poorly drained upland soils; the Olpe map unit, comprised of very deep, well drained upland or high-terrace gravelly soils; the Aliceville map unit, comprised of deep, moderately well drained sloping soils; the Ringo map unit, comprised of moderately deep, moderately well-drained upland soils; and the Verdigris map unit, comprised of very deep, well drained floodplain soils. Hydric soils comprise 9.3 percent of the soils in the Study Area and soils characterized as prime farmland comprise 84.9 percent of the soils in the Study Area.

Soils considered by the USDA to be highly erodible comprise approximately 18.2 percent of the Study Area (USDA NRCS, 2018). These areas are extrapolated from the USDA's aggregated Potential Erosion Hazard - Road / Trail ratings of moderate or severe for each map unit. These soils could be of concern during construction. Areas with shallow bedrock can also present concerns during foundation installation. The USDA has calculated a value called the Restrictive Layer Depth that represents any nearly continuous layers within a map unit that have a property that significantly impedes the movement of water and air or that restricts roots. For this study, the "representative" depth value was used. The Study Area consists of approximately 31.9 percent of soils with very shallow bedrock. This data is not a reliable substitute for completing soil borings to verify soil conditions prior to construction but may provide some indication of potentially troublesome areas.

2.2.3 Water Resources

Water resources within the Study Area can include surface waters, wetlands, floodplains, and aquifers. Below is a description of the specific features within the Study Area.

2.2.3.1 Surface Water

According to a USGS study, the Study Area counties receive an average total of approximately 43.0 inches of rainfall a year. Surface water is the primary source of water for most residents in all Study Area counties (USGS, 2015). The USGS study showed that estimated surface water usage in the Study Area counties averaged approximately 3.3 million gallons per day (mgd), and the estimated average groundwater usage was less than 0.1 mgd, with an average of 1.8 mgd total water usage. The average per capita usage for these counties was estimated to be approximately 140.0 gallons per day.

The Study Area lies within the Neosho, Osage, and Verdigris River Basins. The Neosho River Basin extends approximately 275 miles generally along the Neosho River, starting in Morris County in east central Kansas and continuing southeast into Oklahoma, Missouri, and Arkansas. It encompasses approximately 1,650 square miles in Arkansas, Kansas, Missouri, and Oklahoma and 1,053,208 acres within the Study Area. The Neosho River Basin includes one sub-basin within the Study Area: Spring sub-basin (USGS, 2018a).

The Osage River Basin extends approximately 275 miles starting near Osage County in east-central Kansas and extending east / southeast into central and southwestern Missouri and encompasses approximately 910 square miles in Kansas and Missouri and 581,632 acres within the Study Area. The Osage River Basin includes one sub-basin within the Study Area: Marmaton sub-basin (USGS, 2018a).

The Verdigris River Basin extends approximately 200 miles starting in Lyon County in east-central Kansas and extending generally south into Oklahoma and encompasses approximately 13 square miles in Kansas and Oklahoma and 8,300 acres within the Study Area. The Verdigris River Basin includes one sub-basin within the Study Area: Upper Verdigris sub-basin (USGS, 2018a).

Numerous hydrological features are found within the Study Area, with named streams including the Neosho River; Marmaton River; Lightning Creek; Rock Creek; Owl Creek; Walnut Creek; Elm Creek; Deer Creek; Cherry Creek; Limestone Creek; Cedar Creek; Big Creek; Coal Creek; Crooked Creek; Paint Creek; Long Creek; Flat Rock Creek; Second Cow Creek; West Fork Dry Wood Creek; and Wolf Creek. Named lakes and ponds include: Bone Creek Reservoir; Fort Scott Lake; Crawford Lake; Blackberry Hay Farm Lake; Yates Center Reservoir; Elm Creek Lake; Rock Creek Lake; Mathias Lake; Welda Lake; Katy Lake; Number 180 Reservoir; Circle Lake; Spencer Lake; Mildred Lake; Bassola Lake; Gardner Farms Lake; Frisco Lake; Boyers Lake; Dawson Lake; and Nyman Lake (USGS, 2018a).

2.2.3.2 Wetlands

Wetlands are areas inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and under normal circumstances do support, vegetation adapted for life in saturated soil conditions. Wetlands filter sediments and contaminants, reduce flood damage, provide breeding grounds for fish and wildlife, including endangered species, and protect shorelines from erosion. Reducing and preventing loss and damage to wetlands is a primary goal of the Clean Water Act (CWA) (U.S. Corps of Engineers [USACE], no date).

Most wetlands found within the Study Area are categorized as palustrine, which are non-tidal, vegetated wetlands defined by dominant plant species, such as trees, shrubs, and emergent (herbaceous) plants (Cowardin et al., 1979). The Study Area contains three main groups of palustrine wetlands: emergent, forested / scrub-shrub, and freshwater ponds. Freshwater ponds and emergent wetlands are the most common palustrine wetlands within the area. Most of the wetlands within the Study Area are along streams and around lakes and ponds, as well as associated with reclaimed mine areas (U.S. Fish and Wildlife Service [USFWS], 2018).

2.2.3.3 Floodplains

The Federal Emergency Management Agency (FEMA) has mapped floodplains within the Study Area. The most prominent floodplains that have been mapped in the Study Area are associated with the Wolf Creek Generating Station Lake and the Neosho River, as well as locations along Long Creek, Indian Creek, and East Cow Creek (FEMA, 2018). Most of the floodplains, as mapped by FEMA, are relatively narrow and can likely be spanned with strategic structure placement. The Kansas Department of Agriculture Division of Water Resources regulates floodplain fills and impacts to regulatory floodways in the state of Kansas and the Missouri State Emergency Management Agency administers the National Flood Insurance Program for Missouri.

2.2.3.4 Subsurface Waters and Features

An aquifer is a geologic formation that contains sufficient saturated permeable material to yield significant quantities of water to wells and springs (USGS, 2017). Aquifers that are shallow may be affected by the installation of foundations for the transmission line structures. According to groundwater data managed by the USGS (2017), the Project Study Area does not fall within a specific principal aquifer but is in an area that contains rocks that are minimally permeable but may contain locally productive aquifers.

A karst is a type of landscape where the dissolving of the bedrock has created sinkholes, caves, springs, and other characteristic features. They are associated with soluble rock types such as limestone, marble, and gypsum (National Park Service [NPS], 2018). NEET Southwest contracted with Terracon to assess the Study Area for the risk of the presence of karst features. Much of the Study Area falls within areas that have a potential for karst features. The risk is lowest in the southeastern and northwestern corners of the Study Area.

2.2.4 Vegetation

The Study Area is relatively flat with some slopes associated with streams and reclaimed mine areas with intermingled prairie, pasture, cropland, and strips of largely deciduous trees. Wooded areas consist primarily of oak, hickory, eastern cottonwood, black willow, American elm, and red cedar (Bailey, 2020). Other vegetation in the Study Area includes rough-leaved dogwood, smooth sumac, elderberry, prairie rose, chokecherry, American hazelnut, and buttonbush (Kansas Native Plants, 2018). Crops within the Study Area consist primarily of soybeans, corn, and winter wheat (USDA National Agricultural Statistics Service [NASS], 2017).

2.2.4.1 Federally Listed Plant Species

The USFWS developed a service called Information for Planning and Consultation (IPaC) that provides a listing of protected species and lands within the Study Area and by county. There is one federally protected plant species that may occur within the Study Area based on the USFWS IPaC results retrieved on January 7, 2021. This species is Mead's milkweed (threatened) (USFWS, 2020a). Mead's milkweed occurs primarily in tallgrass prairie with a late successional bunch-grass structure, as well as in hay meadows and thin soil glades or barrens (USFWS, 2003).

2.2.5 Wildlife

Wildlife species found in southeast Kansas and southwest Missouri are likely to be present within the Study Area. Mammal species potentially occurring in the Study Area include: white-tailed deer, Virginia opossum, nine-banded armadillo, eastern cottontail, woodchuck, eastern fox squirrel, deer mouse, eastern woodrat, coyote, and raccoon (Great Plains Nature Center, 2013).

Bird species found within the Study Area include waterfowl species, such as mallard, northern pintail, green-winged teal, Canada geese, and snow geese (Kansas Department of Wildlife and Parks [KDWP], 2020). Other bird species may include the following: turkey vulture, red-tailed hawk, northern cardinal, mourning dove, great horned owl, red-headed woodpecker, common grackle, blue jay, American crow, and American goldfinch (Otte and Gress, 2012).

Reptiles and amphibians potentially found within the Study Area include American toad, American bullfrog, spring peeper, eastern tiger salamander, snapping turtle, painted turtle, broadhead skink, gopher snake, common garter snake, and western massasauga (Taggart and Riedle, 2017).

2.2.5.1 Federally Listed Animal Species

Based on a review of the USFWS' IPaC results for the Study Area completed on January 7, 2021, there are seven federally protected animal species that may occur within the Study Area. Table 2-1 lists the federally listed animal species potentially found within the Study Area.

Gray bats are a cave dwelling bat species. They forage for insects in forests and riparian corridors. KDWP has designated critical habitat for this species as suitable woodlands and water bodies within the southeast portion of Crawford County, Kansas. The U.S. Fish and Wildlife Service (USFWS) and State of Missouri have not designated critical habitat for this species. The gray bat hibernates in the winter in deep, vertical caves and roosts in the summer in caves scattered along rivers. They may forage for insects along rivers and lakes (USFWS, 2019a).

The Indiana bat occurs in Missouri but is not likely to occur in Kansas. The Indiana bat hibernates in the winter in caves or occasionally abandoned mines (USFWS, 2019b). During the summer, the Indiana bat may roost beneath loose bark of live, dead, or dying trees. Roosting and foraging habitat includes forests, wooded fence rows, and riparian areas.

The northern long-eared bat occurs in Kansas and Missouri. The northern long-eared bat hibernates in caves or abandoned mines during the winter. During the summer, the northern long-eared bat may roost beneath loose bark of live, dead, or dying trees. Additionally, the northern long-eared bat may roost in barns, in sheds, under bridges, or in other buildings that have little human disturbance. Female northern long-eared bats typically roost in a maternity colony, while male northern long-eared bats tend to roost singly or in small groups. Roosting and foraging habitat includes forests, wooded fence rows, and riparian areas (USFWS, 2020b).

The Neosho madtom is a fish species found in stream riffles over loosely packed gravel bottoms (USFWS, 2019c).

The Ozark cavefish is a fish species that lives in cave streams and springs (USFWS, 2019d).

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Table 2-1: USFWS Federally Listed Animal Species by County

Common Name	Federal Status	Kansas									Missouri	
		Allen	Anderson	Bourbon	Cherokee	Coffey	Crawford	Jasper	Neosho	Woodson	Barton	Jasper
Gray bat	Endangered						X	X			X	X
Indiana bat	Endangered							X			X	X
Northern long-eared bat	Threatened	X	X	X	X	X	X	X	X	X	X	X
Neosho madtom	Threatened	X			X	X		X	X	X		X
Ozark cavefish	Threatened				X			X				X
Neosho mucket	Endangered	X			X	X		X	X	X	X	X
Rabbitsfoot	Threatened	X			X	X		X	X	X	X	X

USFWS IPAC

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The Neosho mucket is associated with shallow riffles and runs with a gravel substrate and moderate to swift currents in some Kansas and Missouri rivers (USFWS, 2020c). The IPaC also indicates that the Study Area overlaps critical habitat identified for the Neosho mucket.

The rabbitsfoot inhabits small to medium sized streams and some larger rivers, in shallow water along banks and adjacent runs and shoals with low water velocity and a gravel or sand substrate (USFWS, 2020d). The IPaC indicates that the Study Area overlaps critical habitat identified for the rabbitsfoot.

The KDWP has also identified many state-threatened and endangered animal species in the Study Area. Other than fish, mussels, and other aquatic species (which are not likely to be impacted by the Project because streams and creeks will be spanned), there are three species with designated state critical habitat located within the Study Area: broadhead skink, eastern skunk, and the gray bat. The broadhead skink critical habitat is comprised of all stands of mature oak woodland or stands of suitable timber in Bourbon and Crawford counties within the Study Area (KDWP, 2020b). The eastern spotted skunk prefers forest edges and upland prairie grasslands, especially where rock outcrops and shrub clumps are present, as well as riparian corridors, woody fencerows, and abandoned farm buildings. Critical habitat for the skunk may be found within Anderson and Woodson counties in the Study Area (KDWP, 2020c). The gray bat is almost totally cave dwelling, dependent on storm sewers in Crawford and Cherokee counties. Nearby streams with adjacent woodlands provide the critical foraging habitat for the species and they may use woody stream corridors and linear tree plantings as travel lanes. The designated state critical habitat for the gray bat is defined roughly as the southeast quadrant of Crawford County and along Cow Creek into Cherokee County (KDWP, 2020d). Non-aquatic species with no state critical habitat designated within the Study Area include the least tern, piping plover, snowy plover, American burying beetle, and the whooping crane.

There are also several species listed as state endangered or threatened by the Missouri Department of Conservation (MDC) within Barton and Jasper counties in the Study Area. Species in Barton County include Mead's milkweed, plains spotted skunk, northern harrier, redbfin darter, and greater prairie chicken (MDC, 2020a). State threatened and endangered species in Jasper County include the gray bat, American bittern, black-tailed jackrabbit, greater prairie chicken, Neosho madtom, Neosho mucket, northern harrier, Ozark cavefish, rabbitsfoot, and the redbfin darter (MDC, 2020b).

The Project is within the range of the bald eagle and the winter range of the golden eagle, both of which are protected under the Bald and Golden Eagle Protection Act.

2.2.6 Managed / Protected Lands

Several (42) park and recreation areas and lands managed by federal, state, local, and private entities are located within the Study Area.

In addition to managed lands, private and public organizations are working to conserve and protect natural areas, riparian buffers, farmlands, watersheds, and other “special” places, often on private land. The form of protection varies, from relatively simple agreements that include conservation land management practices, to more complex and restrictive agreements that may prohibit virtually any disturbance of the land. The agreements, even if between private landowners and private organizations, can involve the use of state or federal grant funds. The agreements can be short-term, last several years, or be in perpetuity. These lands are typically called conservation easements. There are 12 known conservation easements located within the Study Area (National Conservation Easement Database [NCED], 2018).

Similarly, certain state and federal regulatory programs require mitigation for the unavoidable loss of resources resulting from activities that the programs regulate. The most common example is the CWA Section 404 (wetlands) regulatory program, which requires mitigation for permitted wetland losses through enhancement, restoration, or creation of other wetlands. Those mitigation lands are protected from further development, typically by perpetual easements. It can be difficult to identify mitigation lands in an area without detailed land title research. No mitigation lands have been identified in the Study Area using parcel ownership information and other data sources to identify state and federal lands that are not associated with other managed lands.

Below is a description of the primary managed lands, including conservation easements and known mitigation lands (if any), located within the Study Area.

2.2.6.1 Federally Owned / Managed Lands and Easements

According to the USGS Geographic Information System (GIS) data managed by the USGS (2018b), there are 14 lands within the Study Area that are owned and managed by the Federal government. These lands or tracts range in size from approximately 5.9 to 158.9 acres and include: NRCS wetland reserve program (WRP) lands; the NPS’s Fort Scott National Historic Site; and the USACE’s John Redmond Reservoir. NRCS WRP lands are scattered throughout the Study Area. The Fort Scott National Historic Site is in Fort Scott, and John Redmond Reservoir just slightly extends into the northwestern edge of the Study Area.

2.2.6.2 State Owned / Managed Lands and Easements

According to the USGS data (2018b), 20 tracts of land within the Study Area are owned and managed by the State(s) of Kansas and Missouri. These tracts range from approximately 5.5 to 3,043 acres in size and include: KDWP Bourbon State Lake and Wildlife Area; KDWP Crawford State Park; Missouri Department of Natural Resources (MDNR) Prairie State Park and adjacent lands (MDC East Drywood Creek Natural Area; MDC Regal Prairie Natural Area; and MDC Tzi-Sho Prairie Natural Area); MDC Shawnee Trail Conservation Area; KDWP Neosho Wildlife Area; KDWP Mined Land Wildlife Areas, Pittsburg area 1-8 and Scamman area 26; MDC Lester R. Davis Memorial Forest; KDWP Hollister Wildlife Area; MDC Hunkah Prairie Natural Area; MDC Mon-Shon Prairie Conservation Area; KDWP Robb Prairie; and the KDWP Prairie Spirit Rail-to-Trail. Most of these state managed lands are in the southern half of the Study Area in eastern Crawford County, western Barton County, and southern Bourbon County in Kansas. The Prairie Spirit Trail crosses the Study Area diagonally from the northeast in Anderson County to southwest into Allen County, Kansas.

2.2.6.3 County / Locally Owned / Managed Lands and Easements

There appear to be no locally owned managed lands or easements within the Study Area.

2.2.6.4 Privately Owned Lands and Easements

There are very few (four) privately-owned conservation lands within the Study Area. These are all Nature Conservancy Anderson County Prairie tracts (USGS, 2018b). These private tracts range in size from approximately 50.9 to 1,269 acres and are in the northeastern portion of the Study Area in Anderson County, Kansas. There are some privately-owned conservation and hunting lands throughout the Study Area, based on a review of parcel data, but these lands do not appear to involve any federal, state, or non-governmental agency reviews or authorizations.

2.3 Social Resources

The following is a description of the social resources in the Study Area that could be impacted by the construction and operation of the proposed Project. Topics addressed include patterns of land use and socioeconomics, cultural resources, and visual character.

2.3.1 Land Use and Development Patterns

This section contains information on general land use patterns, agriculture, urban areas, recreation areas, transportation, and utilities within the Study Area.

Thirty-seven municipalities occur within the Study Area; the ten largest include: Pittsburg; Fort Scott; Iola; Frontenac; Girard; Burlington; Humboldt; Arma; Yates Center; and Cherokee. The Study Area largely consists of scattered rural residential development and agricultural practices with some more densely residential and commercially developed areas and reclaimed mine lands around Pittsburg and other larger towns in the Study Area.

2.3.1.1 Agriculture

Agricultural land uses can include more common uses, such as cropland and pastureland, to less common uses, such as pine plantations, orchards, and aquaculture. It is useful to determine the most common types of agricultural practices in an area to evaluate the potential for farm owner concerns associated with transmission lines. Transmission structures may somewhat alter the ways in which a farmer is able to plant, plow, and cultivate crops and may also reduce the amount of land on which to grow crops by a small amount. The extent of irrigation practices, such as center-pivot systems, can also be limited by transmission structures. It can be difficult to identify feasible routes that do not impact irrigation in areas with concentrations of center-pivot systems.

Most of the Study Area is comprised of pasture and cropland, interspersed with wooded fringes around streams and wetlands, some hay land, and some prairie lands. There is a concentration of cropland along the Neosho River corridor. Less pasture and cropland are present around Pittsburg, where there is more development and reclaimed mine lands. Approximately 29.5 percent of the Study Area is comprised of cropland (484,342 acres). There is relatively little center-pivot irrigation in this region of Kansas, although there are several systems located in the southeastern portion of the Study Area, mostly in Barton County, Missouri, and a few located in the northwestern portion of the Study Area in Coffey County, Kansas.

The USDA publishes a Census of Agriculture approximately every five years that summarizes agricultural characteristics by state and county. Table 2-2 summarizes the key agricultural characteristics of the state and counties within the Study Area (USDA NASS, 2017).

The top five crops are the same for each county in the Study Area; however, the counties vary in the order in which the crops are grown. Soybeans are the primary crop for almost all the counties. Based on the agricultural census, the primary crops grown in all the counties, in varying order, are soybeans, forage, hay, corn, and wheat (USDA NASS, 2017).

Table 2-2: Agricultural Characteristics for Kansas and Missouri and Study Area Counties

Characteristic	KANSAS	Allen	Anderson	Bourbon	Cherokee	Coffey	Crawford	Neosho	Woodson	MISSOURI	Barton	Jasper
Number of farms	58,569	505	611	813	756	699	777	687	289	95,320	865	1,315
Land in farms (acres)	45,759,319	239,906	364,522	336,045	319,315	386,279	335,118	323,092	282,986	27,781,883	331,013	264,509
Average farm size (acres)	781	475	597	413	422	553	431	470	979	291	383	201
Land enrolled in conservation reserve, wetland reserve, farmable wetlands, or other enhancement programs (acres)	2,307,445	9,441	7,895	11,164	713	17,244	8,777	10,701	3,844	1,053,287	14,456	3,792
Irrigated land (acres)	2,503,386	548	2,927	634	995	1,148	1,377	845	0	1,529,155	21,682	5,315
Market value of crop sales (\$, %)	\$6,460,437,000 (34%)	\$31,210,000 (65%)	\$80,868,000 (74%)	\$24,925,000 (32%)	\$81,160,000 (76%)	\$46,874,000 (65%)	\$62,355,000 (73%)	\$45,836,000 (56%)	\$27,749,000 (53%)	5,476,314,000 (52%)	\$80,550,000 (61%)	\$46,728,000 (48%)
Market value of livestock sales (\$, %)	\$12,322,289,000 (66%)	\$16,725,000 (35%)	\$27,909,000 (26%)	\$54,009,000 (68%)	\$25,796,000 (24%)	\$24,818,000 (35%)	\$23,585,000 (27%)	\$36,032,000 (44%)	\$24,801,000 (47%)	5,049,623,000 (48%)	\$51,494,000 (39%)	\$50,512,000 (52%)

USDA NASS, 2017

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Primary livestock produced in each of the 10 Study Area counties include cattle and calves, cattle for beef, sales of cattle and calves for husbandry, and egg-laying chickens. Some counties also produce turkeys, horses, hogs, goats, and rabbits (USDA NASS, 2017).

2.3.1.2 Urban and Developed Areas

When siting transmission lines, it is preferable to minimize potential impacts to residences and urban areas, if possible. The public generally prefers that new transmission lines be located as far away from their homes, businesses, and public facilities as possible. Therefore, it is important to understand the population density, housing units, and development trends of the area when identifying new transmission line routes. Population is also an important consideration, which is summarized in Section 2.3.2.1. Table 2-3 displays the population density, housing units, and amount of land within the state, counties, and largest cities or towns within the Study Area (U.S. Census Bureau, 2017).

The population density of Crawford County (KS) and Jasper County (MO) were well above that of their respective States. The population density of Allen County (KS), Anderson County (KS), Barton County (MO), Bourbon County (KS), Coffey County (KS), and Woodson County (KS) were all well below their respective States. The population density of Cherokee County and Neosho County were within 25% of the State's population density. Counties with population densities greater than the State tend to be more developed than those with population densities well below the State. More densely developed areas can be more difficult in which to site feasible transmission line alternatives. There can also be dense concentrations of development, such as cities, in the less densely developed counties, and subdivisions, in the less densely developed cities, that need to be identified during the routing process. The number of housing units can also indicate more densely developed areas. In 2017, Jasper County (MO) and Crawford County (KS) had the greatest number of housing units, while Woodson County (KS) and Anderson County (KS) had the least. Among the cities within the Study Area, Pittsburg and Fort Scott had the greatest number of housing units and Cherokee and Arma had the least.

The Study Area is comprised mostly of scattered rural residences, except for the Pittsburg area in the south and along U.S. Highway 69 where there is denser residential and commercial development. Crawford County, Allen County, and Bourbon County comprise most of the land area within the Study Area. Pittsburg and Fort Scott are the largest cities in terms of area within the Study Area, as well as population density and housing units.

Table 2-3: Population Densities, Housing Units, and Land Area for the State, Counties, and the Ten Largest Cities/Towns Within the Study Area

State / County / City	Population Density (persons/sq. mi)	Housing Units	Land Area within Study Area (acres)
KANSAS	35.0	1,233,215	1,563,191
Allen County	24.8	6,226	321,002
Anderson County	13.4	3,720	184,472
Bourbon County	23.1	7,167	313,826
Cherokee County	34.0	9,890	26,146
Coffey County	12.6	3,964	143,061
Crawford County	65.6	17,801	377,006
Neosho County	27.7	7,513	47,224
Woodson County	6.2	2,022	150,455
MISSOURI	88.0	2,712,729	79,940
Barton County	19.9	5,600	66,094
Jasper County	187.5	50,668	13,846
CITIES	-	-	-
Pittsburg	1,572.9	9,210	8,252
Fort Scott	1,402.0	3,819	3,571
Iola	1,127.9	2,636	3,074
Frontenac	672.3	1,519	3,235
Girard	1,127.5	1,228	1,559
Burlington	1,242.1	1,296	1,124
Humboldt	1,307.6	923	924
Arma	1,343.0	736	731
Yates Center	439.3	821	1,324
Cherokee	1,046.5	324	454

U.S. Census Bureau, 2017

There are 3 colleges / universities, 20 elementary schools, 8 middle schools, and 14 high schools located within the Study Area (National Center for Education Statistics, 2017). Most of these schools are located in cities and towns. Colleges include Pittsburg State University, Allen Community College, and Fort Scott Community College. Elementary schools within the Study Area include: Northeast; R.V. Haderlein; Jefferson; George E. Nettels; Burlington; Crest; Lincoln; Eugene Ware; Winfield Scott; Marmaton Valley; Leroy; Frank Layden; Humboldt; McKinley; Lakeside; Westside; Meadowlark; West Bourbon;

Westphalia; and Yates Center. Middle schools within the Study Area include: Frontenac Junior High; Southeast Junior High; Iola Middle; Fort Scott Middle; Humboldt Middle; Burlington Middle; Girard Middle; and Pittsburg Middle. High schools within the Study Area include: Humboldt; Fort Scott; Iola; Crest; Southern Coffey County; Marmaton Valley; North East; Burlington; Pittsburg; Yates Center; Southeast; Uniontown; Frontenac; and Girard.

There are several quarries and landfills scattered throughout the Study Area. Some larger sites are owned by the Monarch Cement Company, Nelson Quarries, Mulberry Limestone Quarry Company, Midwest Minerals, and U.S.A Waste Services Kansas Landfills, Inc. Beginning in the mid- to late 1800's, both subsurface and strip coal mining became a prominent industry in southeast Kansas, including Crawford and Cherokee Counties, and was a major factor in the development of the area. Some mining camps later became communities, such as Frontenac. After peak production in 1926, most of the mining ended by 1970 and all mines were closed by 1997 (Kansas Historical Society, 2018). Today, the southeastern portion of the Study Area contains evidence of extensive former mining activity, including abandoned and reclaimed sub-surface and surface strip coal mines and tailings.

2.3.1.3 Recreation Areas

Outdoor recreational opportunities, such as hunting and fishing, can be found in reclaimed strip mine lands and other woods, as well as in and around lakes, ponds, and creeks and their riparian woodlands within the Study Area. There are large tracts of land managed for private hunting clubs. Existing parks, such as Schlanger Park, Winston Park, Gunn Park, Deramus Park, and Lincoln Park, and several golf courses and country clubs, including Four Oaks, Cedar Brook, Countryside, Crestwood, and Girard are also found largely in and around the cities and towns within the Study Area (USGS, 2018b; ESRI, 2019a; ESRI, 2019b; USGS, 2020b).

2.3.1.4 Transportation and Aviation

The Kansas Department of Transportation (KDOT) is responsible for coordinating and developing comprehensive transportation policies and developing and operating transportation facilities and services across the State.

The Study Area is crossed by six U.S. highways and 13 state highways, and numerous smaller, local roadways. U.S. 54 extends east / west through the central portion of the Study Area. U.S. 69 extends north / south along the eastern edge of the Study Area. U.S. 69 is also the Frontier Military Historic Byway that extends 167 miles from Fort Leavenworth south to the Oklahoma border, which approximates the old military trail used by the Army to transport troops and supplies between the frontier forts (KDWP,

2011). U.S. 59 runs north / south through the north-central portion and then along the western edge of the southern portion of the Study Area; U.S. 169 extends generally north / south through the north-central portion of the Study Area; and U.S. 75 extends north / south along the northwestern edge of the Study Area. State Highway (SH) 58 extends east / west through the northern portion of the Study Area between U.S. 75 and U.S. Highway 169; SH 7 extends predominately north / south through the south-central portion of the Study Area; SH 3 extends north / south through the central portion of the Study Area; SH 126 extends largely east / west in the southern portion of the Study Area; and SH 39 and SH 146 both run east / west through the southern portion of the Study Area (ESRI, 2016).

Five single-track rail lines extend through the Study Area. The Union Pacific (UP) Railroad Parsons, Coffeyville, and Wolf Creek Lead tracks extend largely north / south in the northwestern and central portions of the Study Area; the Burlington Northern Santa Fe (BNSF) Railroad Fort Scott, Afton, and Gorilla branches extend largely north / south through the southeastern portion of the Study Area; and the South Kansas and Oklahoma (SKOL) and Kansas City Southern (KCS) railroads both cross the southeastern corner of the Study Area (U.S. Department of Transportation Bureau of Transportation Statistics [USDOT], 2018). Many abandoned railroad corridors are present in Crawford and Cherokee counties that were removed in the 1920's and 1930's due to the decline in coal mining (Powell, 1972).

There are three public airports in the Study Area: Fort Scott Municipal is located approximately 2.5 miles southwest of Fort Scott in the eastern portion of the Study Area; Allen County is located east of U.S. Highway 69 about 1.75 miles south of Iola; and Atkinson Municipal is located approximately 2.75 miles northwest of central Pittsburg. There are eight privately-owned airstrips located primarily in the southern half of the Study Area around Pittsburg and Fort Scott (Federal Aviation Administration [FAA], 2020).

2.3.1.5 Utilities and Communication Towers

There are several large power plants, wind farms, and many (32) electrical substations located within the Study Area. The Evergy-owned Wolf Creek Generating Station is in the northwestern corner of the Study Area and the Empire District Electric Company owned Asbury Power Plant is in the southeastern corner of the Study Area. Prairie Queen Wind Farm, owned by EDP Renewables, is in the north-central portion of the Study Area. The Jayhawk Wind Farm, owned by The Empire District Electric Company, is in the central portion of the Study Area. The electrical substations are scattered throughout the Study Area (Hitachi ABB Power Grid, 2016).

There are approximately 37 transmission lines that extend through the Study Area. The primary lines include: the Marmaton to Litchfield 161-kV and 69-kV lines; Neosho to La Cygne 345-kV line;

Litchfield to Asbury 161-kV line; Litchfield to Neosho 161-kV line; Blackberry to Neosho 345-kV line; Marmaton to Neosho 161-kV line; and Centerville to Marmaton 161-kV transmission line (U.S. Energy Information Administration [USEIA], 2018; Hitachi ABB Power Grid, 2016) (Figure 2-1). The Marmaton to Litchfield 161-kV transmission line extends generally southeast / northwest through the south-central portion of the Study Area in Crawford, Bourbon, and Allen counties. The Marmaton to Litchfield 69-kV transmission line runs north / south along the eastern Study Area boundary in Crawford and Bourbon counties and then turns east / west through central Bourbon County. The Neosho to La Cygne 345-kV transmission line extends generally southwest / northeast through Crawford and Bourbon counties. The Litchfield to Asbury 161-kV transmission line extends generally southeast / northwest in the southeastern corner of the Study Area in Jasper and Barton counties. The Litchfield to Neosho 161-kV and Blackberry to Neosho 345-kV transmission lines extend east / west along the southern boundary of the Study Area in Crawford and Cherokee counties. The Marmaton to Neosho and Centerville to Marmaton 161-kV transmission lines extend generally north / south through Crawford, Allen, and Anderson counties in the southwestern and central portions of the Study Area.

In addition to high voltage electric transmission lines, there are also several large diameter natural gas, oil, and petroleum pipelines that crisscross the Study Area. Lines appear to be operated by Southern Star Central Gas Pipeline, Magellan Midstream Partners, Enbridge, and BP. Most pipelines extend from the northeastern portion of the Study Area into Anderson and Allen counties converging on an area south of Humboldt, Kansas, while other pipelines extend from the east or southeast across Bourbon and Crawford counties into Allen County.

There are also 213 communication towers located within the Study Area. These include antenna structure registrations (ASR), microwave, FM radio, and paging towers scattered throughout the entire Study Area, with some concentrations around Fort Scott and Pittsburg within the Study Area (Federal Communications Commission [FCC], 2018).

2.3.2 Socioeconomic Patterns

This section contains data on population and employment in the following Study Area counties: Allen, Anderson, Bourbon, Cherokee, Coffey, Crawford, Neosho, and Woodson counties in Kansas and Barton and Jasper counties in Missouri.

2.3.2.1 Population

Like urban areas, population densities, and housing units, understanding populations and trends within the counties and cities within the Study Area can help to identify areas of constraint and to develop

alternative routes that minimize impacts to the extent practicable. Table 2-4 displays the 2010 and 2017 populations and percent change in population for the state, counties and the largest cities or towns within the Study Area (U.S. Census Bureau, 2010; U.S. Census Bureau, 2017).

Both state populations increased between 2010 and 2017 by 2.1 percent. Jasper County (MO) was the only county to also increase in population during this same period, at only a slightly greater percentage than either state. All other Kansas and Missouri counties in the Study Area decreased in population during this same period, some by as much as 6 to 7 percent. Among the cities or towns within the Study Area, Pittsburg, Burlington, Arma, and Cherokee increased in population and Fort Scott, Iola, Frontenac, Girard, Humboldt, and Yates Center decreased in population.

Table 2-4: 2010 and 2017 Populations and Trends for the States, Counties, and Largest Cities/Towns Within the Study Area

State / County / City	2010 Population	2017 Population	Percent Change
KANSAS	2,853,118	2,913,123	2.1%
Allen County	13,371	12,519	-6.4%
Anderson County	8,102	7,833	-3.3%
Bourbon County	15,173	14,754	-2.8%
Cherokee County	21,603	20,115	-6.9%
Coffey County	8,601	8,224	-4.4%
Crawford County	39,134	39,034	-0.3%
Neosho County	16,512	16,015	-3.0%
Woodson County	3,309	3,147	-4.9%
MISSOURI	5,988,927	6,113,532	2.1%
Barton County	12,402	11,850	-4.5%
Jasper County	117,404	120,217	2.4%
CITIES	-	-	-
Pittsburg	20,233	20,290	0.3%
Fort Scott	8,087	7,823	-3.3%
Iola	5,704	5,414	-5.1%
Frontenac	3,437	3,402	-1.0%
Girard	2,789	2,751	-1.4%
Burlington	2,674	2,745	2.7%
Humboldt	1,953	1,883	-3.6%
Arma	1,481	1,531	3.4%
Yates Center	1,417	1,340	-5.4%

State / County / City	2010 Population	2017 Population	Percent Change
Cherokee	714	743	4.1%

U.S. Census Bureau, 2010; U.S. Census Bureau, 2017

2.3.2.2 Employment and Income

According to the U.S. Census Bureau's 2017 American Community Survey, Kansas' labor force was 50.8 percent of the population (individuals 16 years of age and over) and Missouri's labor force was 49.9 percent of its population. Anderson County (KS) had a greater labor force percentage (52.9 percent) than both states. The rest of the counties (Allen County [KS; 50.3 percent], Barton County [MO; 43.2 percent], Bourbon County [KS; 46.5 percent], Cherokee County [KS; 50.5 percent], Coffey County [KS; 50.1 percent], Crawford County [KS; 49 percent], Jasper County [MO; 47.2 percent], Neosho County [KS; 37.8 percent], and Woodson County [KS; 50.5 percent]) all had a lower labor force percentage than their respective states (U.S. Census Bureau, 2017).

The same survey recorded an unemployment rate for Kansas of 3.6 percent and for Missouri of 3.8 percent. All Kansas counties had higher unemployment rates than the state (4.9 percent in Allen County; 4.0 percent in Anderson County; 4.5 percent in Bourbon County; 3.9 percent in Cherokee County; 5.3 percent in Coffey County; 4.2 percent in Crawford County; 5.2 percent in Neosho County; and 4.5 percent in Woodson County). In Missouri, Barton County had a higher unemployment rate than the state at 4.2 percent, but Jasper County had a lower rate at 3.3 percent (U.S. Census Bureau, 2017).

The two most predominant industries within the counties in the Study Area in 2010 were manufacturing and educational services / health care / and social assistance (U.S. Census Bureau, 2010).

The median household income for Kansas was \$56,382 per year in 2017 and \$53,506 in Missouri. Coffey County (\$57,021) had a median household income higher than either statewide median, but all the other counties in the Study Area had a lower median household income than either state (Woodson County [KS; \$38,840], Neosho County [KS; \$44,073], Jasper County [MO; \$46,611], Crawford County [KS; \$39,461], Cherokee County [KS; \$42,469], Bourbon County [KS; \$41,847], Barton County [MO; \$41,796], Anderson County [KS; \$46,595], and Allen County [KS; \$42,957]). Woodson County had the lowest median income (U.S. Census Bureau, 2017).

2.3.3 Cultural Resources

Burns & McDonnell archaeologists performed a records search in September 2020 and again in January 2022, via the Kansas and Missouri State Historic Preservation Office's (SHPO) online databases. There are 45 structures, sites, or districts within the Study Area that are listed on the National Register of

Historic Places (NRHP) or that have been recommended as eligible for the NRHP. They are located primarily in the cities and towns in the Study Area, including Fort Scott, Pittsburg, Arma, Girard, and Iola, which are typically avoided when routing large transmission lines, whenever possible. Five of these sites are historic districts: Fort Scott Historic Site, Fort Scott Downtown Historic District, Fourth and Broadway Historic District and Whitesitt-Shirk Historic District in Pittsburg, and Yates Center Courthouse Square. NRHP sites include houses, jails, post offices, courthouses, churches, bridges, and rail depots, among others. There are 663 recorded archeological sites scattered throughout the Study Area but they are in relatively low concentrations so that impacts to these recorded archeological sites are likely to be minimal during line siting and pole spotting. There may be other cultural resources located within the Study Area but that are undiscovered, as much of the area has not likely been surveyed.

2.3.4 Visual Character

The visual character of an area is a function of the terrain, land cover, and land use. Throughout the Study Area, the land cover is largely a mixture of pasture and cropland, with some woodlands along streams and wetlands. The terrain within the Study Area is mostly flat, with some slopes around streams and creeks and around reclaimed mine areas. The lack of large, wooded areas and diverse terrain mean that views of linear aboveground features in the Study Area, such as an electric transmission line, could extend for miles.

The number of people potentially within view of the new line, depending on the route selected, is relatively low due to mostly scattered rural residential development across most of the Study Area. Highways, local roads, and railroads pass through the Study Area, as described in Section 2.3.1.4, as do transmission lines and distribution lines, as described in Section 2.3.1.5. These features add to the man-made elements within the Study Area and help to reduce the overall visual intrusion that could be caused by the proposed Project.

3.0 ANALYSIS OF ALTERNATIVES

NEET Southwest retained Burns & McDonnell to assist in the route identification, selection, and documentation for the Project. This section presents the rationale behind the route identification and evaluation process used for the Project. The evaluation ultimately resulted in the selection of a preferred route.

3.1 Overview of the Routing Process

The following is an overview of the steps involved in the identification of the route alternatives and the selection of a preferred route for the Project.

Potential routes were identified that met the routing objective: to identify economically feasible routes connecting the proposed Project endpoints that avoided or minimized impacts to both community and natural resources.

Parelleling opportunities with existing transmission lines, roads, and railroads were investigated during the initial review of the Study Area, as well as during the identification of the preliminary routes. The study team then quantified the engineering, social, and environmental resources that would be impacted by each feasible route. Quantitative data were used to evaluate the alternatives and to recommend a preferred route for the proposed transmission line. Activities leading to the selection of the preferred route are described in more detail in the following sections.

3.2 Identification of Route Alternatives

The objective of the routing analysis was to identify an economically feasible route that offered the most benefits in terms of providing reliable electric service, but that also limited adverse impacts to the social and natural environment within the Study Area. This effort included three primary components: review of USGS topographic maps and recent aerial photography, review of available GIS data regarding potential constraints within the Study Area, and a field review of the alternative routes conducted on October 12 - 15, 2020 along public roads.

The NEET Southwest team initially identified a set of routes using their collected data and routing-based programs. The Burns & McDonnell team then gathered additional data within the Study Area, completed a review of the NEET Southwest routes, and provided recommendations for adjustments and other potential routes to evaluate. The primary goals regarding routing were to:

- Minimize overall impacts by paralleling existing transmission line ROW, where possible;
- Maximize the distance of the line from existing residences and other development;
- Avoid crossing state and federal managed and owned lands;
- Minimize the overall length of the route and minimize angles to help keep the cost reasonable and to minimize land use impacts;
- Minimize crossing contiguous woodland tracts within the gray bat critical habitat area;
- Minimize crossings of large concentrations of wetlands and parallel to streams;
- Minimize impacts to airports and runways.

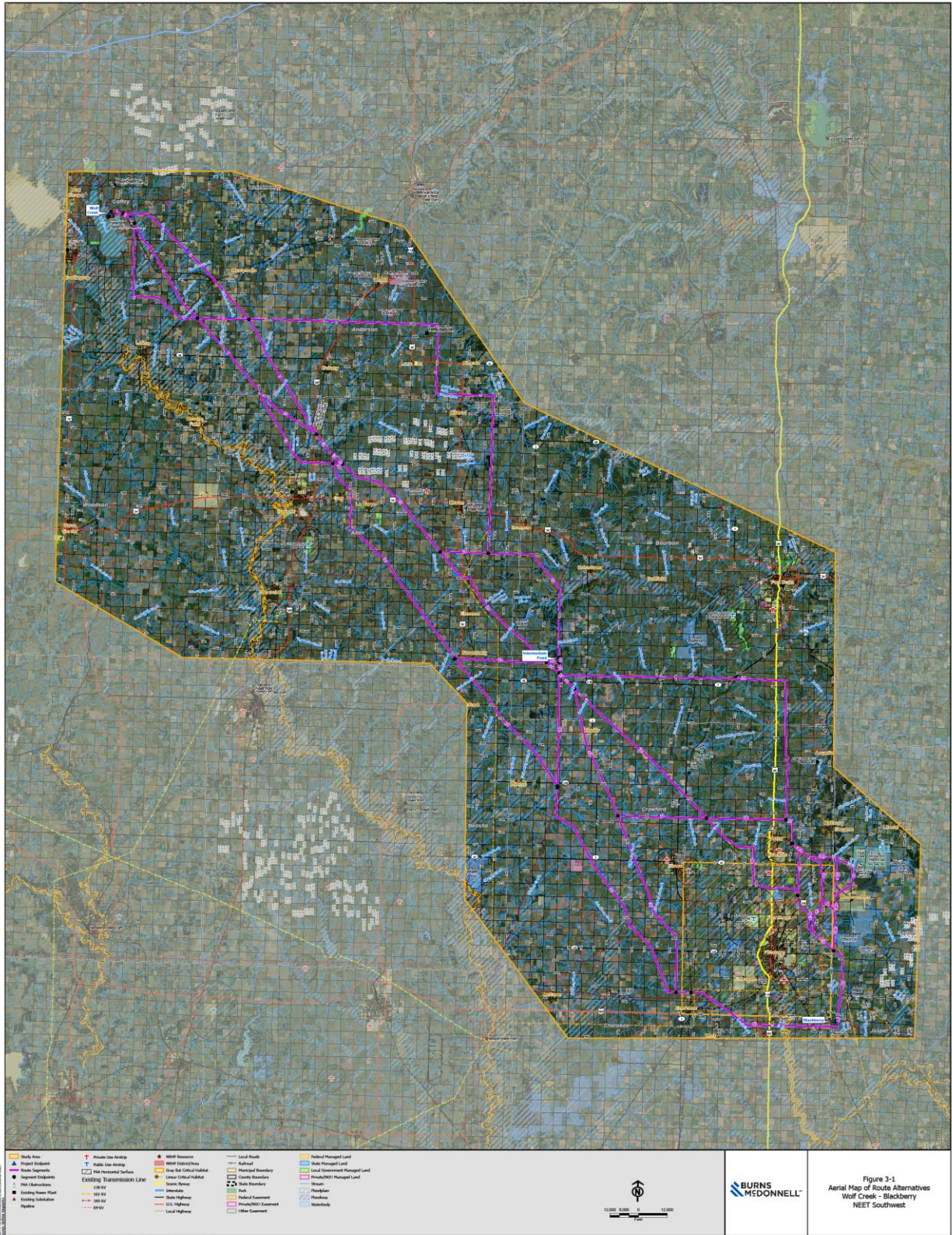
Adjustments were made to the NEET Southwest routes to accomplish the above objectives and to address constraints and newly identified structures observed during the field review. For example, one portion of a preliminary route would have crossed a golf course, so an adjustment was made to avoid the golf course. Additional adjustments were made to minimize the length of routes through restrictive FAA obstruction zones around the Atkinson Municipal Airport near Pittsburg, to avoid paralleling streams, to avoid having known oil / gas wells and tanks in the ROW, and to minimize crossing possible gray bat habitat (*i.e.*, large wooded tracts) in both Kansas and Missouri. An additional route was added for evaluation as an option that would maximize paralleling along roads and property lines. Additional connector segments between routes were added to provide flexibility in using various combinations of routes to reach the endpoints.

The final set of route alternatives consist of individual segments that can be combined in different arrangements to form a continuous path between the Project endpoints. Each segment begins and ends at intersections with other segments. The set of route alternatives for this Project consisted of 53 individual segments. The alternatives were identified to minimize, to the extent practicable, impacts to environmentally sensitive features and residential areas while providing a direct route alignment. Ultimately, 729 distinct routes were developed using forward-progressing combinations of the 53 segments. Figure 3-1 shows the route alternatives overlaid on an aerial photography background of the Study Area.

3.3 Identification of the Preferred Route

The analysis of alternatives was based on social, environmental, and engineering criteria. Data for each criterion were quantified for each segment and summed for each route. Following is a description of the process that resulted in the selection of a preferred route.

Figure 3-1: Aerial Map of Route Alternatives



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3.3.1 Evaluation Criteria

The evaluation of the alternative routes included a systematic comparison of the alternatives based on the social, environmental, and engineering criteria that represent potential adverse effects on resources in the Study Area. Table 3-1 shows the routing criteria measured, though not all of these criteria were necessarily used in the route comparison analysis due to lack of variation among routes.

The primary source of the data used in this analysis was aerial imagery from previous years, including imagery from 2019, supplemented with digital data, such as roads, parcels, protected lands, and wetlands, acquired from various federal and state agencies and sources, and a field review of routes in October of 2020.

To best evaluate potential impacts, the amount of new ROW was calculated as the acreage of new land that would be needed to construct the line. For this Project, a new ROW width of 150 feet was used. New ROW was measured for each route alternative and was used to calculate different land use impacts. It was not included in the evaluation process as it would be like the total length measurement in reflecting potential overall impacts of a route alternative.

Table 3-1: Routing Criteria

Factor	Type
Total Length (feet, miles)	Engineering
Angles Over 30 Degrees (count)	Engineering
Highway Crossings (count)	Engineering
Other Roadway Crossings (count)	Engineering
Length Not Along Existing Transmission Line (feet)	Engineering
Length Not Along Roads (feet)	Engineering
Oil / Gas Wells / Tanks in ROW (count)	Engineering
Number of Pipeline Crossings (count)	Engineering
Length through Previously Mined Area (feet)	Engineering
Transmission Line Crossings (count)	Engineering
Total Length in Karst Area (feet)	Engineering
Residential Proximity Score (score)	Social
Residences within 150 feet (count)	
Residences within 300 feet (count)	
Residences within 500 feet (count)	
Businesses within 300 feet (count)	Social
Public Facilities within 500 feet (count)	Social

Factor	Type
Outbuildings within ROW (count)	Social
Archeological Sites within ROW (count)	Social
Parcels Crossed (count)	Social
Length Not Along Parcel Boundary (feet)	Social
Cropland in ROW (acres)	Social
Rangeland in ROW (acres)	Social
Sensitive Species Score (score)	Environmental
Woodland within Gray Bat Critical Habitat in ROW (acres) Eastern Spotted Skunk Critical Habitat in ROW (acres) Broadhead Skink Critical Habitat in ROW (acres) Woodland in ROW (acres)	
Stream Crossings (count)	Environmental
Waterbodies in ROW (acres)	Environmental
Wetlands in ROW (acres)	Environmental
Floodplain in ROW (acres)	Environmental

3.3.1.1 Engineering / Design Criteria

Engineering criteria were considered in the route analysis to account for impacts resulting from length, length along existing transmission lines and roads, heavy angles, road, pipeline, and transmission line crossings, oil / gas wells within the ROW, length through previously mined areas, and length through karst areas.

Total Length is a general indicator of the overall presence of the Project. Length is also an indicator of construction costs. The longer the proposed route, the more expensive it would be if all other criteria were equal.

Angles Over 30 Degrees were considered because these angles typically require larger structures and more space for construction and guying. Consequently, these structures tend to be more visible and more expensive.

Highway and Other Roadway Crossings provides an indicator of potential permitting and / or line crossing issues that may require special designs or additional permits.

Length Not Along Existing Transmission Line was measured because following existing transmission lines is generally considered to have less impact than a new ROW. Because it is desirable and less

impacting to parallel a new route along an existing transmission line, potential impacts would be more likely to occur where a route would be built away from the existing line, so length *not* along existing transmission lines was measured.

Similarly, **Length Not Along Roads** was measured because following roads is preferred where there is little or no adjacent development. In general, following roads is not as preferable as paralleling existing transmission lines because there are fewer above-ground facilities associated with roads that have already affected the visual environment.

Oil / Gas Wells / Tanks in ROW were quantified to help identify the potential for pole spotting or route alignment changes. Well data from the Kansas Data Access and Support Center (DASC) and the MDNR indicating active wells was used, combined with a field review of obvious wells and tanks along the routes. Available data and the field review were not precise enough to completely avoid the risk of having these features in the ROW. Minor route shifts may be necessary to completely avoid impacts to active wells within the ROW following field surveys along the preferred route.

Number of Pipeline Crossings was calculated to provide engineers with a rough estimate of where permits and special designs may be needed to avoid impacting large diameter pipelines.

Length through Previously Mined Area was calculated using various old USGS maps and data derived from interpretation of topographic and aerial maps. None of these areas are actively mined and are reclaimed. However, these areas could present additional soil or substrate challenges during construction.

Transmission Line Crossings provides an indicator of potential line crossing issues that may require special designs or additional considerations like line outages.

Total Length in Karst Area was calculated using data provided by Terracon, assessing the potential route alternatives for the risk of the presence of karst features. All routes must cross these areas, but the risk indicator can provide an index for where the risks may be greater due to special design or permitting challenges.

3.3.1.2 Social / Structure Criteria

Social and structure criteria were included in the analysis to account for impacts to the human environment, including individual residences, businesses, and public facilities located close to the routes; outbuildings in the ROW; cultural resources within the ROW; parcels crossed; length not along parcel boundaries; and cropland and rangeland crossed.

Proximity to residences was considered for the route analysis. Residences within 150 feet, between 151-300 feet, and between 301-500 feet from the centerline were identified within the Study Area using aerial photography, Microsoft Building Footprint data, and field reconnaissance. The impact to these structures varied depending on the distance from the route. The three criteria for the distance to residences were converted to a

Residential Proximity Score to reflect the public concern that residences located closer to a transmission line would be more affected than those further away. To determine the residential proximity score, the number of residences within 150 feet of the centerline were multiplied by three; the number of residences between 101-300 feet were multiplied by two; and the number of residences between 301-500 feet were multiplied by one. Then, all three results were added together.

Businesses within 300 feet were quantified using GIS data documenting the location of businesses. This data was collected during the field review of the routes.

Public Facilities within 500 Feet was calculated to quantify the potential impact of the line on areas frequented by numbers of people, including schools, religious facilities, parks, and other areas where people may gather, as identified in ESRI or Geographic Names Information System (GNIS) data and from the field review of the routes.

Outbuildings within the ROW were quantified using data collected from the field reconnaissance effort, from a review of aerial imagery, and from Microsoft Building Footprints data. These could indicate locations where landowners may need to be compensated for removal or relocation of the structures, or where there could be asbestos mitigation concerns or the potential for eastern spotted skunk habitat.

Archeological Sites within the ROW were counted using data maintained by the Kansas and Missouri SHPOs. Much of the Study Area has not been surveyed and as a result there is a likelihood that additional sites could be encountered during ground surveys of the proposed route. There were no sites listed or eligible for listing on the NRHP that were crossed by the alternative routes.

Parcels Crossed by the ROW were quantified for each route as a relative measure of the overall impact on private property. Routes that cross significantly more parcels tend to cost more as a result of additional landowners from which to acquire easements. Often this factor is correlated with length such that longer routes have more parcels crossed and therefore was not included in the analysis.

Length Not Along Parcel Boundary was measured because following existing parcel boundaries is generally considered to have less impact than a new ROW across the center of a parcel. Because it is

desirable and less impacting to locate a new route along a parcel boundary, potential impacts would be more likely to occur where a route would be built away from the parcel boundary, so length not along parcel boundary was measured.

Acres of **Cropland Within the ROW** was calculated as those areas crossed by the proposed new ROW using Kansas' DASC Land Cover Patterns Level IV-2005 data designated as cropland and alfalfa and the NASS data characterized as cropland for Missouri only. Any modeled woodland areas (see 3.3.1.3 below) were removed from the calculation.

Acres of **Rangeland Within the ROW** was determined using data characterized in the digital DASC Land Cover Patterns Level IV -2005 data as Conservation Reserve Program (CRP), warm-season grassland, and cool-season grassland and the NASS data characterized as "alfalfa", "clover/wildflowers", "fallow/idle cropland", "grassland/pasture", "other hay/non-alfalfa", and "sod/grass seed" in Missouri only. Any modeled woodland areas (see 3.3.1.3 below) were removed from the calculation.

Crossing rangeland is generally preferable to building a transmission line in wooded areas or areas of cropland as there is generally less impact (i.e. no clearing) to open rangeland or pasture.

3.3.1.3 Environmental Criteria

Environmental evaluation criteria included sensitive species habitat impacts; woodland in the ROW; streams and waterbodies crossed or in the ROW; wetlands in the ROW; and floodplains in the ROW.

A **Sensitive Species Score** was calculated for the routes to evaluate the potential of each route to impact potential habitat for the gray bat, the eastern spotted skunk, and the broadhead skink. **Woodland within Gray Bat Critical Habitat in ROW** was quantified as all wooded areas within the critical habitat zone as designated by KDWP in Crawford and Cherokee counties. **Eastern Spotted Skunk Critical Habitat in ROW** was quantified as all woodland and upland prairie (using the DASC Land Cover Patterns Level IV -2005 data designated as CRP, warm-season grassland, and cool-season grassland) within Anderson and Woodson counties as defined by KDWP. **Broadhead Skink Critical Habitat in ROW** was quantified as all woodland within Bourbon and Crawford counties, as defined by KDWP. **Woodland in ROW** was determined using an imagery analysis model that analyzed 2019 National Agriculture Imagery Program (NAIP) Natural Color Infrared imagery to determine likely signatures of woody vegetation. Woodland Within the ROW represented the forested areas within the ROW that would be cleared along each route and which could be considered sensitive bat habitat. Because NEET Southwest expects that addressing and mitigating gray bat impacts are likely to be more challenging than mitigating impacts to the skink, skunk, and species habitat in other wooded areas, the score was calculated by multiplying the Woodland

within Gray Bat Critical Habitat in ROW by two and then adding the Eastern Spotted Skunk Critical Habitat in ROW, Broadhead Skink Habitat in ROW and total woodland in ROW.

Streams Crossed was measured to capture the potential impact of crossing both perennial and intermittent streams based on National Hydrology Dataset (NHD) data. Additional permitting may be required at stream crossings for the transmission line and access roads, if needed. In addition to streams, acres of **Waterbodies Within the ROW** was also measured using NHD data to identify and evaluate waterbodies other than the NHD streams.

Wetlands in ROW was calculated using National Wetland Inventory (NWI) data produced by the USFWS, and the Kansas Applied Remote Sensing Program's Potential Wetland Areas data available on DASC. Wetlands within the ROW represent areas where additional permitting would be necessary as well as where there could be constraints on pole locations.

Floodplain in ROW was calculated using FEMA floodplain data. Additional permits and design considerations may be required when siting poles or access roads through floodplains. To reduce permitting requirements, efforts will be made to spot poles and access roads in a way that minimizes floodplain impacts.

3.3.2 Weighting the Routing Criteria

The categories described above were considered to represent the potential impact of construction and operation of the new transmission line. The Project team then assigned weights to some of the criteria based on their experience with similar transmission line projects across the country. A weight scale from 1 to 10 was used for this process, with 1 representing the lowest impact and 10 representing the highest impact during the evaluation. Some factors in Table 3-1 were determined to not have much variability between routes; as such, they would not help discriminate between the various routes, which was the intent of this analysis. Therefore, those criteria were assigned a weight of zero and are not included in Table 3-2. The weights associated with each routing criterion are presented in Table 3-2.

3.3.3 Evaluation Process

Within the proposed Study Area, 53 route segments were developed and evaluated to select a final route(s) from the existing Wolf Creek Substation to the existing Blackberry Substation. The route network developed from the 53 segments can be combined to form 729 route alternatives (see Figure 3-1). The route components and route data for all route alternatives are provided in Appendix A.

Burns & McDonnell quantified the route criteria for the potential route alternatives. No single route had the lowest value for all of the measured criteria. While a particular route may have the lowest impact for one criterion, it may have much higher impacts for another. The routing criteria included units such as combined score, length, acres, and numbers of selected resources. These units are not directly comparable but need to be considered as a whole in the evaluation process. The level of complexity resulting from the number of routes, combined with numerous criteria and differences in measurement units made it difficult to conduct a route-by-route comparison to identify a route that would minimize potential overall impacts to the area. Consequently, Burns & McDonnell used a statistical Z-score analysis as a tool to rank and screen the route alternatives and to identify a smaller, more manageable number of routes warranting further investigation and comparison for the selection of a final route alignment.

Table 3-2: Routing Criteria Weights

Factor	Weight
Residential Proximity Score (score)	10
Sensitive Species Score (score)	9
Length Not Along Existing Transmission Line (feet)	8
Total Length (feet)	6
Wetlands in ROW (acres)	5
Length through Previously Mined Areas (feet)	4
Angles Over 30 Degrees (count)	4
Floodplain in ROW (acres)	3
Cropland in ROW (acres)	3
Stream Crossings (count)	3
Archeological Sites within ROW (count)	2
Transmission Line Crossings (count)	2
Total Length through Karst Area (feet)	1
Length Not Along Parcel Boundary (feet)	1
Public Facilities within 500 feet (count)	1

The impacts associated with each criterion for each potential route were determined, and a Z-score was then calculated for each criterion for each route. A Z-score determines the mean value within a set of data, compares each individual route value to the mean, and transforms the data into comparable values. A degree of difference is calculated for each route by determining how far (number of standard deviations) each route value deviates from the mean value. For example, the total length of all routes would be quantified, and the mean value would be determined for the entire set of routes. The total length for each route would then be compared against the mean value. If a particular route length was equal to the mean

value, then the assigned Z-score would be zero. If the total length was greater than the mean value, then the Z-score for that route would be a positive number. If the total length was less than the mean value, the Z-score would be a negative value for that route. The more the individual route value exceeded the mean, the higher the positive number would be. Conversely, the more the route value was below the mean, the more negative the Z-score. As a result, the more negative a number, the less impacting that route would be for that criterion.

After all Z-scores were calculated, Burns & McDonnell applied a weight factor to each criterion to give greater consideration in the evaluation process to those criteria that are considered to have a greater impact on the overall Project evaluation (see Table 3-2). If weight factors were not applied, all criteria would be assumed to have the same level of impact on the evaluation process. Although all criteria need to be considered during the routing process because they have the capacity to influence potential impacts, design, and cost, certain criteria have the capacity to influence the Project in a greater manner. Therefore, all criteria are not equal in terms of importance to the Project, and thus are weighted accordingly. For example, the number of streams crossed is an important criterion to be considered because of the potential impact to aquatic systems and habitat, as well as design factors. However, design issues are relatively easy to address when crossing streams and measures can be taken to mitigate impacts to aquatic systems along a waterway. Therefore, this criterion received a lower weight. On the other hand, the number of residences located near the route was given a higher weight during evaluation because of concerns often expressed by homeowners and landowners to new transmission lines.

Weights were assigned to each criterion and were multiplied by the raw Z-score calculated for each criterion for each potential route. By weighting the Z-scores, those criteria determined to warrant greater consideration during the evaluation process were weighted higher and thus became more significant contributors to the overall analysis and screening of the potential routes. The range of weights (1-10) was determined by the number of criteria, the relative importance of each criteria in relation to the others, and the need to differentiate between the alternative routes.

After applying weights to each of the calculated Z-scores for each criterion, the resulting weighted Z-scores for each criterion were summed for all alternative routes to give a total weighted Z-score for each route. Both positive and negative Z-scores were included in the analysis to determine the total weighted Z-score. As with individual criterion Z-scores, a positive total weighted Z-score for a particular route would suggest that the route would have greater-than-average impacts as compared to all routes. A negative Z-score would indicate routes having less-than-average impacts as compared to the other routes.

The Z-score analysis allowed all routes to be screened to simplify the identification of the routes with lower overall impacts.

Z-scores only consider quantified route evaluation criteria. Therefore, Z-scores do not necessarily reflect all actual impacts but provide a guide to better assess and compare overall potential impacts associated with all routes. This methodology is used to organize, manage, and screen the extensive route data to streamline the analysis to a manageable number of routes that can be further evaluated before a final route recommendation is made. Having determined total weighted Z-scores for all route alternatives, Burns & McDonnell arranged the routes by their total weighted Z-scores. Routes were listed in ascending order, beginning with routes having the lowest Z-scores (i.e., least impacting) and continuing to the routes having the highest Z-scores (i.e., most impacting) (Appendix B).

The resulting total weighted Z-scores for the 729 route alternatives ranged from a low of -52.83 to a high of 73.52. In general, the routes that stair-stepped along roads and property boundaries using Segment 8, Segment 18, and Segment 29 (especially from Segments 16 and 24) scored the poorest of all the alternative routes, largely because they were longer and had more angles, as well as having other greater impacts than other routes. Routes that used Segment 16 along the western portion of the Study Area and then turned along Segments 21, 29, or 34 to go back east, also scored poorly due to extra length and greater overall impacts. None of the routes using these segment combinations were carried forward for further evaluation.

Based on the number of possible route combinations for the Project, it was not feasible to do a route-by-route comparison of all possible routes. Therefore, to streamline the analysis, approximately five percent of the lowest-scoring (least-impacting) routes in the Z-score analysis were reviewed for additional evaluation and comparison. This lowest-scoring five percent included 36 route alternatives, all of which scored well compared to the remaining route alternatives and would be feasible to construct with fewer impacts compared to the other routes. Table 3-3 and Table 3-4 (located at the end of this chapter) include the route data and weighted scores for these top five percent of routes evaluated. A more detailed description of the selection of the final routes is discussed in the following section.

3.3.4 Selection of the Preferred Route

The evaluation included a review of the overall rankings of all alternative routes with a focus on the top five percent of the routes evaluated as described above. After each route received a weighted score based on measured criteria for each route alternative, the Project team considered the merits of the remaining 36 route alternatives to determine a set of final routes for further consideration and analysis.

When considering the 36 route alternatives retained for further evaluation, both quantitative and qualitative data was used to differentiate the routes and to provide a rationale for the selection of final route alignments. Environmental, social, and engineering data were evaluated.

In the route evaluation, there were some trends in the way the routes scored. Beginning at the northwest corner at the Wolf Creek Substation, the segment combination of Segments 2 and 9 (eastern option) ranked better than Segments 3, 4, and 7, followed by routes using Segments 3, 5, and 7. The differences between these combinations are relatively minor, but generally the poorer scoring options are longer, have more woodland impacts, some more karst impacts, more angles, and cross more streams and transmission lines. Continuing south along the route alternatives, routes using Segment 17 scored generally better than routes using Segment 16 due primarily to more length along existing transmission lines and a lower impact to sensitive species habitat (less woodland clearing). In the southern portion of the Study Area, routes using Segment 31 scored better than routes using Segments 32 and 35, Segment 33, Segments 32 and 34, and Segment 29. The latter two combinations did not even score well enough to rank in the top five percent of routes. Routes using Segment 31 scored better than the other combinations primarily in length, length along existing transmission lines, transmission line crossings, sensitive species habitat impacts, and floodplain crossed.

Of the top five percent of routes, the top five routes were Routes 65, 68, 76, 75, and 57. The scores of these routes did not differ substantially from the others, so any of these routes could be selected as the preferred route and the Project would still have relatively minor overall impacts. Each of these five routes uses Segments 1, 2, 9, 12, 13, 17, and 20 for the northern half of the route. In fact, 80 percent of the top 10 routes use this route combination using Segment 24 or a minor variation using Segment 23, so it seems clear this route is less impacting for this portion of the Project. There is no specific set of features that cause these routes to score somewhat better than the other route options in the northern half of the Project; it is just a combination of impacts that caused a slightly lower set of scores.

For the southern half of the Project, after Segments 23/24, the top five routes continue along Segments 30 and 31 to extend north and east of Pittsburg, or turn south on either Segments 30, 32, and 35 or on Segments 28 and 33 to extend south and west of Pittsburg. In the analysis, the top two routes, Routes 65 and 68, extend north and east of Pittsburg. The next three poorer-scoring routes (Routes 76, 75, and 57) head south around Pittsburg. Routes 65 and 68 are shorter than Routes 76, 75, and 57, parallel existing transmission lines for longer lengths, have lower sensitive species impact scores (have less woodland clearing and skink critical habitat impacts), and cross less cropland and floodplain. The south-Pittsburg routes (Routes 76, 75, and 57) have lower residential impacts and cross less previously mined areas and

fewer streams, but these were not enough to outweigh the greater impacts in the other quantified factors. In addition, Routes 76, 75, and 57 all use Segment 43 that parallels nearly 10 miles of the Blackberry to Neosho 345-kV transmission line. Having two high voltage lines in such close proximity reduces system reliability (if a weather event were to remove both lines from service at the same time, overloading of the electrical system in the region could occur). This reduced reliability makes these routes less preferable than Routes 65 and 68 that extend north of Pittsburg and parallel lower voltage lines. For these reasons, the analysis then became focused on a comparison between Route 65 and Route 68.

Route 65 differs from Route 68 in how it extends around the north side of Pittsburg. Route 65 uses Segments 36, 37, 38A, 45, 46, and 38E northeast of the towns of Arma and Franklin. Route 68 is west of Route 65 and uses Segments 40, 41A, and 41B south of Arma and Franklin. Route 65 is a bit longer than Route 68, but has fewer existing transmission line crossings, a lower sensitive species score due to less woodland clearing in the gray bat critical habitat area, less broadhead skink impacts, a lower residential impact, and lower floodplain impacts. Route 68 is shorter, has fewer heavy angles, parallels existing transmission lines more, and crosses fewer streams and wetlands. Route 68, however, extends through areas where the line could be considered an obstruction to the Atkinson Municipal Airport by the FAA. Evaluations of the Part 77 and TERPS (Terminal Instrument Procedures) surfaces associated with the airport indicate that heights may be limited, and special designs could be required in some locations along Route 68. Because Route 65 is further east and further from the airport, it would not be as limited (or limited at all) in height and design as Route 68. Preliminary structures have been filed with the FAA to validate the analysis completed for the airport impacts. To avoid the costs and challenges associated with potential impacts to the airport, and because Route 65 would impact gray bat critical habitat less than Route 68, Route 65 was selected as the preferred route to present to the public.

Route 65 is comprised of Segments 1, 2, 9, 12, 13, 17, 20, 24, 27, 30, 31, 36, 37, 38A, 45, 46, 38E, 42, and 44. This route exits the Wolf Creek Substation to the east for approximately 3 miles and then turns southeast. It continues diagonally to the southeast for approximately 41 miles where it then continues to the southeast for approximately 27 miles parallel to the existing Marmaton to Litchfield 161-kV transmission line. Route 65 then turns east for about 7 miles to avoid the FAA obstruction areas around the Atkinson Municipal Airport before then turning generally south/southeast for another 5.5 miles to then parallel the existing Marmaton to Litchfield 69-kV transmission heading south for approximately 2 miles. The route then turns to the southeast for approximately 1.5 miles, extending into Missouri, where the route then turns south and southeast for about 4 miles. At this point, Route 65 parallels the existing Litchfield to Asbury 161-kV transmission line south for approximately 3 miles before a slight turn to the southwest for approximately 2.5 miles to connect with the Blackberry Substation. Figure 3-2 shows the

preferred route alignment. Additional review and adjustments were made to Route 65 following its selection based on both engineering and environmental concerns. For ease of discussion in later chapters, Route 65 will be referred to as the Proposed Route. Adjustments and possible impacts along the route are described in Chapter 4.0.

Figure 3-2: Preferred Route



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Table 3-3: Route Data for the Top Routes Evaluated

Route	Segments	Total Length (mi)	Angles Over 30 Degrees (count)	Length Not Along Existing Transmission Line (feet)	Length Through Previously Mined Area (feet)	Transmission Line Crossings (count)	Total Length Karst Area (feet)	Residential Proximity Score (score)	Public Facilities within 500 feet (count)	Archaeological Sites within ROW (count)	Length Not Along Parcel Boundary (feet)	Cropland in ROW (acres)	Sensitive Species Score (score)	Stream Crossings (count)	Wetlands in ROW (acres)	Floodplain in ROW (acres)
65	1,2,9,12,13,17,20,24,27,30,31,36,37,38A,45,46,38E,42,44	94.3	17	366,820	53,860	10	307,310	58	0	0	433,960	651.2	314.5	168	39.2	200.4
68	1,2,9,12,13,17,20,24,27,30,31,40,41A,41B,42,44	92.5	14	342,230	54,060	12	294,100	63	0	0	447,830	675.7	389.5	162	35.1	219.5
75	1,2,9,12,13,17,20,24,27,30,32,35,43,44	94.7	15	456,800	20,220	13	311,020	48	1	1	437,520	712.9	411.7	139	32.2	249.7
76	1,2,9,12,13,17,20,24,28,33,43,44	96.0	16	421,840	20,220	13	299,650	38	0	1	462,170	688.2	433.4	157	37.7	235.0
66	1,2,9,12,13,17,20,24,27,30,31,36,37,38A,45,47,41B,42,44	94.9	17	369,780	54,020	12	307,310	58	0	0	433,690	657.0	336.1	163	39.7	249.7
57	1,2,9,12,13,17,20,23,26,28,33,43,44	96.5	17	422,970	20,220	13	302,460	38	0	1	460,780	690.4	435.9	157	38	193.7
372	1,3,4,7,11,15,17,20,24,27,30,31,36,37,38A,45,46,38E,42,44	94.8	17	363,140	53,860	10	306,110	54	0	1	444,070	672.5	289.7	171	43.5	206.6
46	1,2,9,12,13,17,20,23,26,27,30,31,36,37,38A,45,46,38E,42,44	94.8	20	367,950	53,860	10	310,120	58	0	0	432,570	653.4	317.1	168	39.5	225.8
375	1,3,4,7,11,15,17,20,24,27,30,31,40,41A,41B,42,44	92.9	14	338,550	54,060	12	292,910	59	0	1	457,930	697.0	364.6	165	39.4	200.4
49	1,2,9,12,13,17,20,23,26,27,30,31,40,41A,41B,42,44	93.0	17	343,360	54,060	12	296,910	63	0	0	446,440	677.9	392.1	162	35.4	219.5
382	1,3,4,7,11,15,17,20,24,27,30,32,35,43,44	95.2	15	453,120	20,220	13	309,820	44	1	2	447,630	734.2	386.8	142	36.5	255.9
56	1,2,9,12,13,17,20,23,26,27,30,32,35,43,44	95.2	18	457,930	20,220	13	313,830	48	1	1	436,130	715.1	414.3	139	32.5	257.7
383	1,3,4,7,11,15,17,20,24,28,33,43,44	96.5	16	418,160	20,220	13	298,450	34	0	2	472,280	709.5	408.5	160	42	241.2
115	1,2,9,12,14,16,22,33,43,44	94.2	16	485,780	20,220	11	309,520	39	0	1	437,840	674.5	457.8	146	36.9	235.0
276	1,3,4,7,10,12,13,17,20,24,27,30,31,36,37,38A,45,46,38E,42,44	93.8	15	357,720	53,860	10	300,970	60	0	1	441,950	647.4	294.2	172	45.9	265.4
422	1,3,4,7,11,16,22,33,43,44	94.2	15	479,840	20,220	11	306,050	34	0	2	449,390	696.8	430.7	148	41.0	207.8
279	1,3,4,7,10,12,13,17,20,24,27,30,31,40,41A,41B,42,44	91.9	12	333,130	54,060	12	287,760	65	0	1	455,820	671.9	369.1	166	41.9	226.9
286	1,3,4,7,10,12,13,17,20,24,27,30,32,35,43,44	94.1	13	447,700	20,220	13	304,680	50	1	2	445,510	709.1	391.3	143	39.0	257.1
373	1,3,4,7,11,15,17,20,24,27,30,31,36,37,38A,45,47,41B,42,44	95.4	17	366,100	54,020	12	306,110	54	0	1	443,790	678.4	311.2	166	44.0	255.9
47	1,2,9,12,13,17,20,23,26,27,30,31,36,37,38A,45,47,41B,42,44	95.4	20	370,910	54,020	12	310,120	58	0	0	432,300	659.3	338.7	163	40.0	199.9
287	1,3,4,7,10,12,13,17,20,24,28,33,43,44	95.4	14	412,740	20,220	13	293,310	40	0	2	470,160	684.4	413.0	161	44.5	242.4
364	1,3,4,7,11,15,17,20,23,26,28,33,43,44	97.0	17	419,290	20,220	13	301,260	34	0	2	470,890	711.7	411.0	160	42.3	193.7
353	1,3,4,7,11,15,17,20,23,26,27,30,31,36,37,38A,45,46,38E,42,44	95.3	20	364,270	53,860	10	308,920	54	0	1	442,680	674.7	292.2	171	43.8	206.6
679	1,3,5,7,11,15,17,20,24,27,30,31,36,37,38A,45,46,38E,42,44	97.3	22	359,080	53,860	11	317,060	51	1	0	427,930	657.3	317.9	173	41.3	225.8
356	1,3,4,7,11,15,17,20,23,26,27,30,31,40,41A,41B,42,44	93.5	17	339,690	54,060	12	295,720	59	0	1	456,540	699.2	367.2	165	39.7	211.1
682	1,3,5,7,11,15,17,20,24,27,30,31,40,41A,41B,42,44	95.4	19	334,490	54,060	13	303,850	56	1	0	441,800	681.8	392.9	167	37.3	230.2
277	1,3,4,7,10,12,13,17,20,24,27,30,31,36,37,38A,45,47,41B,42,44	94.3	15	360,680	54,020	12	300,970	60	0	1	441,670	653.2	315.7	167	46.5	257.1
363	1,3,4,7,11,15,17,20,23,26,27,30,32,35,43,44	95.7	18	454,250	20,220	13	312,630	44	1	2	446,240	736.4	389.4	142	36.8	201.1
268	1,3,4,7,10,12,13,17,20,23,26,28,33,43,44	96.0	15	413,870	20,220	13	296,120	40	0	2	468,770	686.6	415.5	161	44.8	241.2
690	1,3,5,7,11,15,17,20,24,28,33,43,44	99.0	21	414,100	20,220	14	309,400	31	1	1	456,140	694.3	436.8	162	39.9	260.3
257	1,3,4,7,10,12,13,17,20,23,26,27,30,31,36,37,38A,45,46,38E,42,44	94.3	18	358,850	53,860	10	303,780	60	0	1	440,560	649.6	296.7	172	46.2	207.8
689	1,3,5,7,11,15,17,20,24,27,30,32,35,43,44	97.6	20	449,050	20,220	14	320,770	41	2	1	431,490	719.0	415.1	144	34.4	245.7
583	1,3,5,7,10,12,13,17,20,24,27,30,31,36,37,38A,45,46,38E,42,44	96.3	20	353,660	53,860	11	311,910	57	1	0	425,810	632.1	322.4	174	43.8	226.9
260	1,3,4,7,10,12,13,17,20,23,26,27,30,31,40,41A,41B,42,44	92.4	15	334,260	54,060	12	290,570	65	0	1	454,420	674.1	371.7	166	42.2	265.1
729	1,3,5,7,11,16,22,33,43,44	96.7	20	475,780	20,220	12	317,010	31	1	1	433,260	681.6	458.9	150	38.9	269.8
586	1,3,5,7,10,12,13,17,20,24,27,30,31,40,41A,41B,42,44	94.4	17	329,070	54,060	13	298,710	62	1	0	439,680	656.7	397.4	168	39.8	212.2

Table 3-4: Weighted Scores for the Top Routes Evaluated

Route	Segments	Weights															Total
		6	4	8	4	2	1	10	1	2	1	3	9	3	5	3	
		Total Length	Angles Over 30 Degrees	Length Not Along Existing Transmission Line	Length Through Previously Mined Area	Transmission Line Crossings	Total Length Karst Area	Residential Proximity Score	Public Facilities within 500 feet	Archaeological Sites within ROW	Length Not Along Parcel Boundary	Cropland in ROW	Sensitive Species Score	Stream Crossings	Wetlands in ROW	Floodplain in ROW	
65	1,2,9,12,13,17,20,24,27,30,31,36,37,38A,45,46,38E,42,44	-9.31	-3.98	-12.49	-0.15	-2.82	-0.83	0.89	-1.22	-2.30	1.06	-0.42	-12.45	0.83	-5.67	-3.96	-52.83
68	1,2,9,12,13,17,20,24,27,30,31,40,41A,41B,42,44	-11.70	-7.74	-16.24	-0.09	-0.17	-1.85	5.51	-1.22	-2.30	1.37	0.59	-7.12	-0.41	-10.19	-0.96	-52.52
75	1,2,9,12,13,17,20,24,27,30,32,35,43,44	-8.86	-6.49	1.23	-10.50	1.16	-0.55	-8.35	0.07	0.59	1.14	2.13	-5.54	-5.19	-13.38	3.78	-51.70
76	1,2,9,12,13,17,20,24,28,33,43,44	-7.18	-5.23	-4.10	-10.50	1.16	-1.42	-17.60	-1.22	0.59	1.69	1.11	-4.00	-1.45	-7.32	1.47	-51.08
66	1,2,9,12,13,17,20,24,27,30,31,36,37,38A,45,47,41B,42,44	-8.59	-3.98	-12.04	-0.10	-0.17	-0.83	0.89	-1.22	-2.30	1.05	-0.18	-10.92	-0.21	-5.12	3.78	-48.81
57	1,2,9,12,13,17,20,23,26,28,33,43,44	-6.50	-3.98	-3.93	-10.50	1.16	-1.21	-17.60	-1.22	0.59	1.66	1.20	-3.82	-1.45	-6.99	-5.02	-48.73
372	1,3,4,7,11,15,17,20,24,27,30,31,36,37,38A,45,46,38E,42,44	-8.69	-3.98	-13.06	-0.15	-2.82	-0.93	-2.81	-1.22	0.59	1.29	0.46	-14.21	1.46	-0.94	-2.99	-47.99
46	1,2,9,12,13,17,20,23,26,27,30,31,36,37,38A,45,46,38E,42,44	-8.64	-0.21	-12.32	-0.15	-2.82	-0.62	0.89	-1.22	-2.30	1.03	-0.33	-12.27	0.83	-5.34	0.03	-47.68
375	1,3,4,7,11,15,17,20,24,27,30,31,40,41A,41B,42,44	-11.08	-7.74	-16.81	-0.09	-0.17	-1.94	1.81	-1.22	0.59	1.59	1.47	-8.89	0.21	-5.45	-3.96	-47.42
49	1,2,9,12,13,17,20,23,26,27,30,31,40,41A,41B,42,44	-11.03	-3.98	-16.07	-0.09	-0.17	-1.63	5.51	-1.22	-2.30	1.34	0.68	-6.94	-0.41	-9.86	-0.96	-47.12
382	1,3,4,7,11,15,17,20,24,27,30,32,35,43,44	-8.24	-6.49	0.67	-10.50	1.16	-0.64	-12.05	0.07	3.48	1.36	3.00	-7.31	-4.57	-8.65	4.76	-46.87
56	1,2,9,12,13,17,20,23,26,27,30,32,35,43,44	-8.18	-2.72	1.40	-10.50	1.16	-0.34	-8.35	0.07	0.59	1.11	2.22	-5.36	-5.19	-13.05	5.04	-46.54
383	1,3,4,7,11,15,17,20,24,28,33,43,44	-6.56	-5.23	-4.66	-10.50	1.16	-1.51	-21.30	-1.22	3.48	1.91	1.99	-5.77	-0.83	-2.59	2.45	-46.25
115	1,2,9,12,14,16,22,33,43,44	-9.52	-5.23	5.65	-10.50	-1.49	-0.67	-16.67	-1.22	0.59	1.15	0.54	-2.27	-3.74	-8.21	1.47	-45.67
276	1,3,4,7,10,12,13,17,20,24,27,30,31,36,37,38A,45,46,38E,42,44	-10.01	-6.49	-13.88	-0.15	-2.82	-1.32	2.74	-1.22	0.59	1.24	-0.57	-13.89	1.67	1.71	6.25	-45.24
422	1,3,4,7,11,16,22,33,43,44	-9.44	-6.49	4.74	-10.50	-1.49	-0.93	-21.30	-1.22	3.48	1.40	1.46	-4.19	-3.32	-3.69	-2.80	-45.22
279	1,3,4,7,10,12,13,17,20,24,27,30,31,40,41A,41B,42,44	-12.40	-10.26	-17.63	-0.09	-0.17	-2.33	7.36	-1.22	0.59	1.55	0.44	-8.57	0.42	-2.70	0.20	-44.81
286	1,3,4,7,10,12,13,17,20,24,27,30,32,35,43,44	-9.55	-9.00	-0.16	-10.50	1.16	-1.04	-6.51	0.07	3.48	1.32	1.97	-6.99	-4.36	-5.89	4.94	-43.99
373	1,3,4,7,11,15,17,20,24,27,30,31,36,37,38A,45,47,41B,42,44	-7.97	-3.98	-12.60	-0.10	-0.17	-0.93	-2.81	-1.22	0.59	1.28	0.70	-12.69	0.42	-0.39	4.76	-43.98
47	1,2,9,12,13,17,20,23,26,27,30,31,36,37,38A,45,47,41B,42,44	-7.92	-0.21	-11.87	-0.10	-0.17	-0.62	0.89	-1.22	-2.30	1.02	-0.08	-10.73	-0.21	-4.79	-4.04	-43.90
287	1,3,4,7,10,12,13,17,20,24,28,33,43,44	-7.87	-7.74	-5.49	-10.50	1.16	-1.91	-15.75	-1.22	3.48	1.87	0.95	-5.45	-0.62	0.16	2.63	-43.36
364	1,3,4,7,11,15,17,20,23,26,28,33,43,44	-5.88	-3.98	-4.49	-10.50	1.16	-1.30	-21.30	-1.22	3.48	1.88	2.08	-5.59	-0.83	-2.26	-5.02	-43.32
353	1,3,4,7,11,15,17,20,23,26,27,30,31,36,37,38A,45,46,38E,42,44	-8.01	-0.21	-12.88	-0.15	-2.82	-0.71	-2.81	-1.22	0.59	1.25	0.55	-14.04	1.46	-0.61	-2.99	-42.59
679	1,3,5,7,11,15,17,20,24,27,30,31,36,37,38A,45,46,38E,42,44	-5.49	2.30	-13.67	-0.15	-1.49	-0.09	-5.58	0.07	-2.30	0.93	-0.16	-12.21	1.87	-3.36	0.03	-42.27
356	1,3,4,7,11,15,17,20,23,26,27,30,31,40,41A,41B,42,44	-10.41	-3.98	-16.63	-0.09	-0.17	-1.72	1.81	-1.22	0.59	1.56	1.56	-8.71	0.21	-5.12	-2.28	-41.62
682	1,3,5,7,11,15,17,20,24,27,30,31,40,41A,41B,42,44	-7.88	-1.46	-17.43	-0.09	1.16	-1.10	-0.96	0.07	-2.30	1.23	0.84	-6.88	0.63	-7.76	0.72	-41.21
277	1,3,4,7,10,12,13,17,20,24,27,30,31,36,37,38A,45,47,41B,42,44	-9.29	-6.49	-13.43	-0.10	-0.17	-1.32	2.74	-1.22	0.59	1.23	-0.33	-12.37	0.63	2.37	4.94	-41.10
363	1,3,4,7,11,15,17,20,23,26,27,30,32,35,43,44	-7.56	-2.72	0.84	-10.50	1.16	-0.43	-12.05	0.07	3.48	1.33	3.09	-7.13	-4.57	-8.32	-3.85	-41.01
268	1,3,4,7,10,12,13,17,20,23,26,28,33,43,44	-7.20	-6.49	-5.32	-10.50	1.16	-1.69	-15.75	-1.22	3.48	1.84	1.04	-5.27	-0.62	0.49	2.45	-40.84
690	1,3,5,7,11,15,17,20,24,28,33,43,44	-3.36	1.05	-5.28	-10.50	2.49	-0.67	-24.07	0.07	0.59	1.55	1.36	-3.76	-0.41	-4.90	5.45	-40.40
257	1,3,4,7,10,12,13,17,20,23,26,27,30,31,36,37,38A,45,46,38E,42,44	-9.33	-2.72	-13.71	-0.15	-2.82	-1.11	2.74	-1.22	0.59	1.21	-0.48	-13.72	1.67	2.04	-2.80	-39.82
689	1,3,5,7,11,15,17,20,24,27,30,32,35,43,44	-5.04	-0.21	0.05	-10.50	2.49	0.20	-14.83	1.37	0.59	1.01	2.38	-5.30	-4.15	-10.96	3.15	-39.76
583	1,3,5,7,10,12,13,17,20,24,27,30,31,36,37,38A,45,46,38E,42,44	-6.81	-0.21	-14.50	-0.15	-1.49	-0.48	-0.03	0.07	-2.30	0.88	-1.20	-11.89	2.08	-0.61	0.20	-39.40
260	1,3,4,7,10,12,13,17,20,23,26,27,30,31,40,41A,41B,42,44	-11.72	-6.49	-17.46	-0.09	-0.17	-2.12	7.36	-1.22	0.59	1.52	0.53	-8.39	0.42	-2.37	6.20	-38.82
729	1,3,5,7,11,16,22,33,43,44	-6.25	-0.21	4.12	-10.50	-0.17	-0.09	-24.07	0.07	0.59	1.04	0.84	-2.19	-2.91	-6.00	6.94	-38.77
586	1,3,5,7,10,12,13,17,20,24,27,30,31,40,41A,41B,42,44	-9.20	-3.98	-18.25	-0.09	1.16	-1.49	4.59	0.07	-2.30	1.19	-0.19	-6.56	0.83	-5.01	-2.11	-38.76

4.0 ENVIRONMENTAL IMPACTS OF THE PROPOSED ROUTE

This section contains a description of the potential environmental effects that could result from the construction, operation, and maintenance of the Proposed Route for the 345-kV transmission line from the existing Wolf Creek Substation to the existing Blackberry Substation. Following selection of the Proposed Route, modifications were made to further minimize impacts along the Proposed Route. Those modifications are described below. Potential impacts to both natural and social resources along the final Proposed Route are then considered.

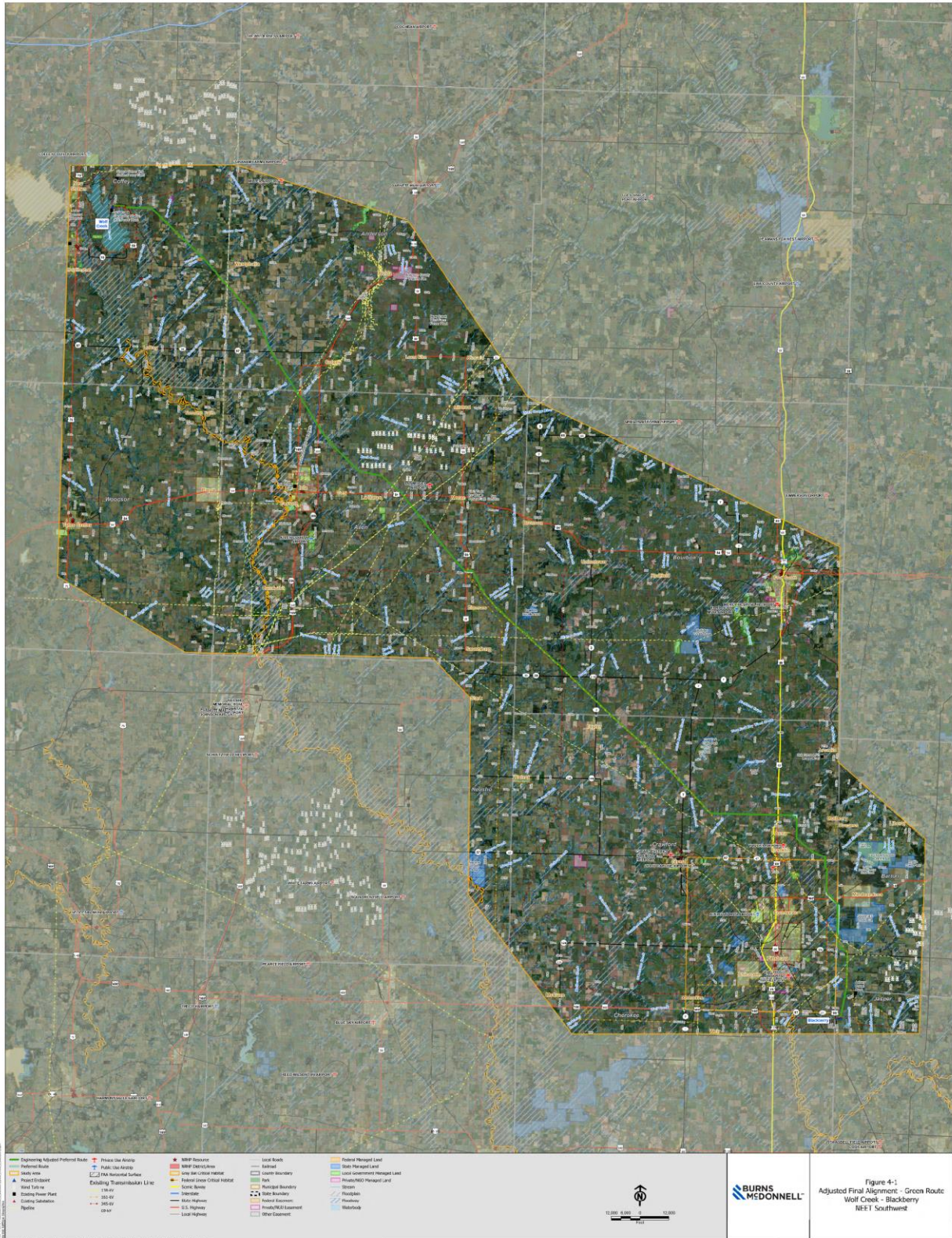
4.1 Modifications to the Proposed Route Following Selection

The Route 65 was selected as the final Proposed Route as described in Chapter 3.0 from the segment and route data and corresponding route evaluation presented in Tables 3-3 and 3-4 and Appendices A and B. Following the route analysis that resulted in the selection of this Proposed Route, NEET Southwest subject matter experts completed a detailed review of the Proposed Route's alignment and made recommendations for adjustments. The adjustments were reviewed by the Project team and those that were approved were incorporated into the selected Proposed Route. Figure 4-1 shows the final adjusted alignment of the Proposed Route overlaid on the aerial constraint map.

Adjustments were made in conjunction with the completion of a detailed study of pole spotting. The detailed pole spotting resulted in adjustments that were needed to keep structures out of floodplains and streams and to minimize the need for wetland and floodplain permits. Access roads to preliminary structure locations were also evaluated to determine if structures needed to be adjusted to avoid access roads that would have to cross streams and wetlands. Adjustments were also made to cross railroads and highways as close to a 45- to 90-degree angle as possible and to avoid having known bridges and culverts located within 300 feet of the ROW. Finally, adjustments were made to the Proposed Route along Segments 38C, 38D, and 38E, moving the Proposed Route adjacent to the state line (on the Missouri side) to reduce clearing of wooded habitat, which could be areas in which the endangered gray bat could be found. This adjustment is also expected to reduce the impact to wetlands and reclaimed mined lands.

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Figure 4-1: Adjusted Final Alignment — Proposed Route



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4.2 Final Proposed Route

The final Proposed Route selected for the Wolf Creek – Blackberry Project is the Proposed Route (also referred to as Route 65). The Proposed Route was selected for several key reasons:

- It is one of the shortest routes;
- It would not require any substantial design changes to avoid impacting the Atkinson Municipal Airport in Pittsburg, Kansas, and flights into and out of the airport;
- It would have less overall land use impacts because it parallels existing transmission lines (161-kV and lower) for over a quarter of its length;
- It would impact a very low amount of critical species habitat, including only 3.0 acres of woodland within the designated gray bat critical habitat, the least amount of broadhead skink habitat, and nearly the lowest amount of overall woodland clearing;
- It would have no impact to known archeological sites or sites listed on the NRHP;
- No public facilities are within 500 feet of the route;
- It would impact relatively few wetland and floodplain acres;
- It would cross relatively few existing transmission lines, which would improve reliability and reduce design challenges associated with the crossings; and
- While the route had a higher residential impact than other evaluated routes, it would still have a relatively low impact to houses for a 94-mile route (seven homes are within 150 feet and 21 homes are between 151 and 300 feet).

The following sections describe the Proposed Route and its potential impacts in more detail.

The adjusted Proposed Route is approximately 496,348 feet (94.0 miles) in length (Figure 4-1). The Proposed Route originates at the existing Wolf Creek Substation, located approximately one mile south of the intersection of Oxen Lane and 16th Road in Coffey County, Kansas. This Proposed Route would exit the Wolf Creek Substation to the east and then southeast, continuing diagonally to the southeast for approximately 41 miles, then another 27 miles while parallel to the existing Marmaton to Litchfield 161-kV transmission line. The Proposed Route would then turn east for about 7 miles to avoid the FAA obstruction areas around the Atkinson Municipal Airport on the northwest side of Pittsburg, then continue south/southeast for another 16 miles, extending into Missouri and paralleling the Marmaton to Litchfield 69-kV transmission line for approximately 2 miles and the existing Litchfield to Asbury 161-kV transmission line for approximately 3 miles. At this point, the Proposed Route would turn slightly

southwest for approximately 2.5 miles to connect with the Blackberry Substation, located approximately a half mile southeast of the intersection of SH 171 and Sumac Road in Missouri.

4.2.1 Proposed Route Data

Table 4-1 contains a cumulative summary of the data for the adjusted Proposed Route, as well as the range of values for all the other alternative routes compared from the analysis completed and described in Chapter 3.0. Acres of impacts were calculated based on a 150-foot-wide ROW.

4.3 Impacts on Natural Resources

Following is a description of potential impacts to natural resources from the construction and operation of the Proposed Route. These resources include topography, soils, hydrology, vegetation, wetlands, and wildlife.

4.3.1 Topography and Soils

Clearing, construction, and operation of the proposed Project would not result in any significant impacts to the existing topography. The Project would generally follow the existing contour of the land, and extensive grading or earthwork would not be necessary. Land clearing would consist of tree and shrub removal. Impacts, if any, to topography from the use of heavy equipment would be localized, limited, and temporary in nature.

The Project would result in temporary and minor adverse soil impacts within the ROW during construction regardless of the route selected. NEET Southwest's ROW clearing practices involve cutting vegetation within four inches of the ground. Stumps, low-growing vegetation, and root mats are left in place. There is no "grubbing" or grading within the ROW. However, some impacts to area soils would result from the use of heavy construction equipment and the excavation of soils required for installing the transmission structures. Construction activities, which are temporary in nature, can cause soil compaction, ruts or tracks from vehicular movement, and mixing of the soil profile.

During and following construction of the proposed transmission line, some erosion can occur within the cleared ROW. The National Pollutant Discharge Elimination System (NPDES) regulates discharges of wastewater and stormwater from construction activities such as this transmission line Project and requires the preparation and implementation of a sedimentation and erosion control plan to regulate and manage these discharges. In Kansas, the NPDES regulations are implemented by the Kansas Department of Health and Environment (KDHE) and in Missouri by the MDNR. Mitigation proposed in Chapter 5.0 includes Project compliance with the CWA and the NPDES, thus controlling offsite sedimentation and avoiding potential soil run-off into area streams.

Table 4-1: Proposed Route Summary Data

	Factor	Proposed Route	Range for All Routes
Engineering	Total Length (feet)	496,348	485,280 – 631,420
	Total Length (miles)	94.0	91.9 – 119.6
	Angles Over 30 Degrees (count)	18	12 – 29
	Highway Crossings (count)	12	10 – 14
	Other Roadway Crossings (count)	100	96 – 110
	Number of Pipeline Crossings (count)	10	10 – 18
	Transmission Line Crossings (count)	10	9 – 15
	Length Not Along Existing Transmission Line (feet)	369,620	329,070 – 538,570
	Length Not Along Roads (feet)	477,210	449,800– 555,910
	Total Length through Karst Area (feet)	307,350	282,360 – 347,790
	Length through Previously Mined Area (feet)	51,930	20,220 – 69,380
	Oil/Gas Wells/Tanks in ROW (count)	8 ¹	0 – 3
	Outbuildings in ROW (count)	2	0 – 6
	Environmental	Stream Crossings (count)	163
Waterbodies in ROW (acres)		13.8	7.9 – 20.0
Wetlands in ROW (acres)		36.4	32.2 – 55.4
Floodplain in ROW (acres)		200.1	190 - 290
Woodland within Gray Bat Critical Habitat in ROW (acres)		3.0	0 – 32.8
Eastern Spotted Skunk Critical Habitat in ROW (acres)		65.7	26.2 – 205.9
Broadhead Skink Critical Habitat in ROW (acres)		72.1 ¹	75.6 – 257.6
Woodland in ROW (acres)		156.7 ¹	163.3 – 459.4
Sensitive Species Score (score)		300.5	289.7 – 932.3
Social		Cropland in ROW (acres)	655.4
	Rangeland in ROW (acres)	842.3	696.2 – 1,053.5
	Archeological Sites within ROW (count)	0	0 – 2
	Parcels Crossed (count)	299	293 – 368
	Length Not Along Parcel Boundary (feet)	429,460	209,100 – 472,580
	Residences within 150 feet (count)	7 ¹	0 – 5
	Residences within 300 feet (count)	21	7 – 24
	Residences within 500 feet (count)	18	8 – 28
	Residential Proximity Score (score)	81	31 – 84
	Businesses within 300 feet (count)	0	0 – 1
Public Facilities within 500 feet (count)	0	0 – 3	

¹ Values for the Proposed Route may no longer fall within the range of values for all routes due to the adjustments made following the selection of the preferred route (see Section 4.1)

4.3.2 Water Resources

Construction and operation of the Project would not significantly impact surface water features along the Proposed Route. Based on USGS 1:24,000 scale topographic maps and NHD data, the Proposed Route would cross 163 streams.

The transmission line would be designed to span all waterbodies so that no structures would be placed within any waterway. All streams along the Proposed Route are narrow enough that they can easily be spanned with normal structure spacing and heights. Similarly, the construction and maintenance of the transmission line would not disturb any subsurface waters. Each structure would be buried to a depth of approximately 10 percent of the actual structure height plus 1.5 feet. Most of the structures would be buried approximately 9 to 15 feet, an insufficient depth to encounter most subsurface aquifers, if present.

NEET Southwest, as indicated above, intends to fully comply with the Kansas and Missouri Pollutant Discharge Elimination System standards, as well as other applicable laws, such as the Federal CWA. This compliance, coupled with NEET Southwest's limited-impacting ROW clearing practices, is intended to prevent offsite sedimentation, including impacts to streams and wetlands. Mitigation measures proposed in Chapter 5.0 would further reduce potential water quality impacts associated with stream crossings.

Most of the wetlands in the Study Area are emergent wetlands associated with creeks, ponds, and agricultural swales. The ROW for the Proposed Route would cross approximately 36.4 acres of NWI and Kansas potential wetlands and 13.8 acres of waterbodies. A desktop wetland analysis for the Proposed Route was conducted to further document potential wetland impacts. The results of this study are presented in a separate report.

To minimize impacts to wetlands and reduce complexity, cost, and timeline of wetland permitting, NEET Southwest has imposed the following constraints on the engineering of the transmission line and access roads:

- Minimize temporary impacts to wetland areas with access roads;
- All access roads through wetlands will be matted;
- Unless required for engineering, avoid all wetlands with pole locations;
- Where it is required to have a pole in a wetland, limit the loss of wetlands to no more than 1/10 acre per pole location; and
- Avoid all regulated activity in Designated State Waters which includes Outstanding National Resource Waters, Exceptional State Waters, or Special Aquatic Life Use Waters as listed in the Kansas Surface Water Register.

Construction and operation of the Project is designed to limit jurisdictional discharges to water or wetlands. Forested wetlands would be maintained as scrub / shrub or emergent wetlands. NEET Southwest's ROW clearing practices include hand-clearing in jurisdictional wetlands to help avoid jurisdictional discharges. Similarly, NEET Southwest typically can avoid placing structures in streams or smaller wetlands by spanning such areas. Erosion control measures described previously and in Chapter 5.0 would further minimize sediment from entering waterways or impacting wetlands.

NEET Southwest would conduct wetland / stream delineations and coordinate with the USACE regarding jurisdictional determinations for wetland / stream extent and location, if any would be impacted. NEET Southwest would seek approval for Section 404 and Section 401 permits from the USACE, KDHE, and MDNR. Should the Project require unavoidable impact to waters or wetlands, NEET Southwest would obtain the required approvals under the USACE Nationwide Permit Program.

NEET Southwest will minimize impacts to floodplains through intensive, site-specific layouts of both transmission line structures and access roads. The adjusted Proposed Route crosses approximately 200.1 acres of floodplain. All structures that may be located within a floodplain will exceed the Kansas Division of Water Resources (DWR) Utility Pole Stream Setback requirements; thus, NEET Southwest does not anticipate that the Project would need to obtain a permit from the DWR for floodplain impacts. A separate permit from the Missouri State Emergency Management Agency for constructing utility structures in floodplains would also not be required.

The Proposed Route crosses seven counties, each with specific floodplain regulations. Each county's floodplain regulations appear to be consistent with each other and very similar in their requirements. Close collaboration between our engineers and environmental staff will allow structures and access roads to be located and designed to minimize floodplain impacts and associated permitting risk. NEET Southwest does not anticipate that the Project will require an Engineering "No-Rise" Certificate because no utility poles are located within a regulatory floodway.

Terracon completed an assessment of possible karst areas along the Proposed Route. The adjusted Proposed Route crosses approximately 307,350 feet of possible karst area. If specific karst features (e.g., sinkholes, springs, etc.) are identified within the ROW during future field surveys along the Proposed Route, additional evaluations may be required to determine possible environmental impacts, including the potential for bat habitat, as well as possible design impacts caused by those karst features.

4.3.3 Vegetation

Construction and maintenance of the proposed transmission line would result in the loss of tall vegetation within the transmission line ROW due to shrub and tree clearing. Herbaceous vegetation would not be removed but could be damaged by construction equipment and vehicular movement. Disturbed areas in uplands would be mulched and / or re-seeded following the disturbance, as described in NEET Southwest's erosion control plan, which would be submitted to the KDHE and MDNR for the Project. Tree clearing would occur where the line crosses wooded fence rows, narrow riparian corridors, and undeveloped forested land. The adjusted Proposed Route would require clearing approximately 156.7 acres of woodland. In addition to the clearing of the actual maintained ROW, danger trees that could fall into the new transmission line and cause an outage would also be removed outside the maintained corridor.

Most woody vegetation that would be impacted consists of deciduous hardwood stands interspersed in some areas with red cedar. Mature trees, such as pines, oaks, hickories, and maples occurring in or immediately adjacent to the transmission line ROW, would have to be cleared to protect the integrity of the line. Ongoing maintenance of the ROW during operation of the line through mowing and/or herbicide application would encourage the proliferation of lower-growing types of vegetation, which helps stabilize the soil. Some cropland may also be impacted along the Proposed Route by the placement of structures. Impacts to crops are discussed in Section 4.4.1.1.

4.3.3.1 Federally Listed Plant Species

Mead's milkweed is a federally threatened plant species that may be located within the Study Area. This plant can occur in moderately wet to moderately dry upland tallgrass prairie or glade/barren habitat characterized by vegetation adapted for drought and fire (USFWS, 2019e). Almost all land crossed by the Proposed Route is cropland or pasture altered by agricultural operations, which would prohibit Mead's milkweed from proliferating. As a result, impacts to Mead's milkweed are expected to be relatively low, but NEET Southwest will work with the USFWS to avoid or minimize impacts wherever suitable habitat is found along the ROW.

4.3.4 Wildlife

Construction and maintenance of the Proposed Route could result in some adverse impacts to wildlife. The removal of forested vegetation within or near the proposed ROW may impact foraging, shelter, or nesting habitat for some species. Impacts to most species would be temporary and short-term during construction and would consist primarily of displacement and disturbance. Some less mobile species occurring in the construction corridor could be directly impacted, and movements between segmented

habitats could be temporarily impeded due to noise and human presence. Additional temporary disturbance could occur during future maintenance of the line. No impacts are expected to fish or other aquatic species because perennial waterways would be spanned or avoided, and erosion control techniques would be used to limit sedimentation of waterways.

4.3.4.1 Federally Listed Animal Species

According to the USFWS, seven federally listed animal species are known, or have been known, to occur within the Study Area. These seven species include the gray bat, Indiana bat, and Neosho mucket (endangered) and the northern long-eared bat, Neosho madtom, Ozark cavefish, and rabbitsfoot (threatened). The Neosho mucket, Neosho madtom, Ozark cavefish, and rabbitsfoot are aquatic species and are not likely to be impacted by the Proposed Route because all perennial streams and open waters will be spanned. There is habitat or the potential for the occurrence of the gray bat, Indiana bat, and northern long-eared bat along the Proposed Route.

According to information obtained from USFWS, there are currently no known roost caves or hibernaculum structures for the gray bat in the vicinity of the Project in the Kansas and Missouri counties that are crossed. The Proposed Route crosses some forested areas that are likely to be suitable foraging habitat for this species and could be considered designated critical habitat by the KDWP. The NEET Southwest team has carefully reviewed all of these areas and worked to design the Proposed Route, including locating proposed structures and construction access roads, to reduce potential impacts to potential gray bat foraging habitat and areas that could be considered designated critical habitat. The Proposed Route crosses approximately 3.0 acres of woodland within the designated critical habitat area for the gray bat. Through ongoing coordination with the USFWS and KDWP, the NEET Southwest team has worked to reduce potential impacts to the gray bat to avoid the need for additional permitting and mitigation requirements. Tree clearing outside of the gray bat active season (April 1 to October 31) is an agency recommended measure that the NEET Southwest team would implement for the Project to minimize and avoid impacts to the gray bat. Unless the Project directly impacts a roost cave or hibernaculum structure, the USFWS will not require mitigation for gray bats simply for clearing trees during the winter. Other than the sewer systems in Pittsburg, the agencies have not identified any roost caves or hibernaculum structures that would be crossed by the Proposed Route.

The Indiana bat occurs in Missouri but is not likely to occur in Kansas. Currently, there are no known roosts for the Indiana bat in the vicinity of the Proposed Route in the Missouri counties crossed, according to conversations by our project biologist with USFWS. The Proposed Route crosses some forested areas that are likely to be suitable for this species. The NEET Southwest team has worked to

design the Proposed Route and locate proposed structures to reduce impacts to potential Indiana bat habitat. The Indiana bat is not anticipated to pose any potential risks to the Project because the NEET Southwest team is minimizing the amount of tree clearing required and would implement tree clearing for the Project outside of the Indiana bat roosting season (April 1 to October 31).

The northern long-eared bat occurs in Kansas and Missouri. The USFWS published a proposal on March 23, 2022, to reclassify the northern long-eared bat as endangered under the Endangered Species Act (ESA). The USFWS is under court order to complete a new final listing determination for the northern long-eared bat by November 2022. If finalized, the reclassification, would remove the current 4(d) rule. The 4(d) rule for northern long-eared bat specifies that incidental take as a result of tree clearing activities is only prohibited if it occurs within 150 feet of a known, occupied maternity roost during the pup rearing season (June 1 to July 31), or within 0.25-mile of a known hibernaculum at any time of year. Currently, there are no known maternity roosts for northern long-eared bats in the Kansas and Missouri counties crossed by the Project, according to conversations with USFWS. The Project crosses some forested areas that are likely to include suitable roost trees for this species. The NEET Southwest team has worked to design the Proposed Route and locate proposed structures to reduce potential impacts to potential northern long-eared bat habitat. The Project would not be prohibited under the 4(d) rule and because no known maternity roosts or hibernacula occur near the Project and the NEET Southwest team would implement tree clearing for the Project outside of the pup rearing season (June 1 to July 31). Guidance from the USFWS regarding restrictions or effects determinations is being drafted. NEET Southwest is planning to adhere to more stringent time of year tree clearing restrictions, conducting tree clearing outside of bat roosting season (April 1 to October 31); no impacts to this species are anticipated.

The Project is within the range of the bald eagle and the winter range of the golden eagle. However, due to their rarity in Kansas and Missouri, the Project is not anticipated to impact golden eagles. The Project will be designed following Avian Power Line Interaction Committee (APLIC, 2012) suggested practices to minimize impacts to migratory birds and eagles. Eagle nest surveys will be conducted prior to construction of the Proposed Route and construction activity around active nests will be avoided until eagles have fledged, in coordination with the USFWS.

4.3.4.2 State Listed Animal Species

The gray bat, eastern spotted skunk, and broadhead skink have KDWP-designated critical habitat located within the Study Area and along the Proposed Route. The potential for impacts to the gray bat are described in the previous section because it is also listed as a federally protected species.

The eastern spotted skunk is listed as a Kansas threatened species and a Missouri endangered species; it is not a federally protected species. Eastern spotted skunks prefer forest edges, upland prairie grasslands, and riparian corridors where rock outcrops and shrub clumps are present. This species may also occur in fencerows and abandoned farm buildings. KDWP has designated all suitable habitat within Anderson County, Kansas, as critical habitat for this species; no critical habitat has been designated in the State of Missouri.

NEET Southwest has completed desktop evaluations using GIS data and aerial photographs and windshield surveys to identify areas that KDWP would likely consider designated critical habitat for the eastern spotted skunk. The Proposed Route crosses approximately 65.7 acres of possible eastern spotted skunk critical habitat. Additional on-the-ground evaluation during the permitting phase of the Project will be necessary to determine the suitability of potential designated critical habitat areas crossed by the Project as suitable habitat and determine the level of coordination with the KDWP. The NEET Southwest team has been coordinating with the KDWP to reduce potential impacts to the eastern spotted skunk and avoid additional permitting and mitigation requirements. Measures suggested by KDWP that could be implemented along the Proposed Route are described in Chapter 5.0 and would also help to further minimize the potential impacts of this Project.

The broadhead skink is listed as a threatened species in Kansas. The broadhead skink is not a federally listed species or a listed species in the State of Missouri. KDWP has designated all stands of mature oak woodland in Bourbon and Crawford Counties in Kansas as critical habitat for this species.

Through a detailed evaluation of aerial photography and GIS data, NEET Southwest's Proposed Route would avoid and minimize impacts to wooded habitats that appear to be mature oak woodland. The Proposed Route would cross approximately 72.1 acres of possible broadhead skink critical habitat. Additional on the ground evaluation during the permitting phase of the Project will be necessary to determine if the wooded areas crossed are considered suitable habitat and determine the level of coordination with the KDWP. The NEET Southwest team has been coordinating with the KDWP to reduce potential impacts to the broadhead sink and avoid additional permitting and mitigation requirements. Measures suggested by KDWP that could be implemented along the Proposed Route are described in Chapter 5.0 and would also help to further minimize the potential impacts of this Project.

The NEET Southwest team has reviewed state and federal lists of protected species for the areas crossed by the Proposed Route. Additional threatened and endangered species are known or likely to occur in the Kansas and Missouri counties crossed by the Proposed Route. However, most of these protected species

are known from specific habitats not crossed by the Proposed Route or are aquatic dependent species that are associated with a specific stream that is either avoided or is spanned by the Project. KDWP has designated critical habitat for some state listed aquatic dependent species in Kansas but has indicated that a Kansas State Action Permit would not be necessary if the aquatic feature, including the designated critical habitat, is spanned by the Project.

4.3.5 Managed / Protected Lands

The Proposed Route crosses no Federal or State-owned lands, except for a crossing of the KDWP-owned Prairie Spirit Trail, which is a former railroad corridor that has been rail banked and converted to a public use recreational trail. KDWP holds the Notice of Interim Trail Use (NITU) for the Prairie Spirit Trail and is responsible for the maintenance of the trail. According to KDWP, KDWP indicated that they would be the sole agency that would be responsible for reviewing the project and issuing a utility crossing permit/easement. Although it has been designated a National Recreation Trail, there would be no federal agency involvement.

The NEET Southwest design team reviewed potential crossing locations along the Prairie Spirit Trail based on input from KDWP. Because this trail could revert to an operational railroad in the future, the crossing angle, proposed conductor height above the trail, adjacent transmission line structure locations and distances from the trail right-of-way will all be designed to comply with railroad crossing requirements. This will eliminate any future modifications to the transmission line that would be required if Prairie Spirit Trail reverts to a railroad.

The data used to evaluate possible impacts to environmentally sensitive lands was provided by the Protected Areas Database of the U.S. (PADUS) and NCED datasets, which catalog lands managed by state or federal agencies, as well as conservation easements or mitigation lands. Additionally, county parcel data was reviewed to identify lands that may be owned by federal or state entities. Based on the available data, the Proposed Route would not likely impact any Federal or State easements. It is possible, though not expected, there are yet unknown or undocumented environmentally sensitive lands located within the path of the Proposed Route. Once the Proposed Route is approved by the KCC and MPSC, NEET Southwest would work with the landowners, the USFWS, USACE, State, and local agencies prior to construction to identify environmentally sensitive lands and design to avoid structure placement on these lands or develop mitigation strategies to limit potential impacts to them.

4.4 Impacts on Social Resources

This section contains a discussion of the potential impacts of the Project in general and the Proposed Route in particular on the social resources in the area, including land use, socioeconomics, and cultural resources.

4.4.1 Land Use and Development

The following paragraphs provide information on potential impacts to agriculture, urban and residential areas, recreational areas, and transportation and utility corridors. In general, the Proposed Route would have very limited impacts on the existing land uses in the area. NEET Southwest would work with individual landowners to the extent feasible to reach agreeable solutions to land use conflicts that may arise.

4.4.1.1 Agriculture and Other Land Uses

Construction and operation of the Proposed Route could result in some minor impacts to agricultural land within the proposed ROW. The Proposed Route would cross approximately 655.4 acres of cropland, based on land use classifications made in the Kansas DASC Land Cover Patterns Level IV-2005 data and NASS data for Missouri. Impacts to cropland would occur because structures and guy wires placed in cropland remove some of the land from production and may create obstacles for large farm machinery. Some structure and minor alignment adjustments may be made during future easement consultations with landowners to further reduce impacts. Temporary disturbance from heavy equipment within the ROW may result in the loss of some crops during construction. The only land that would be unavailable for agricultural use following construction would be the area occupied by the structure or guy wires. Other cropland within the ROW can continue to be farmed.

The Proposed Route would cross approximately 842.3 acres of rangeland (as defined by the Land Cover Patterns Level IV – 2005 data and the NASS dataset for Missouri). Some of the rangeland in the Study Area is used as pasture. The new transmission lines should not have a major impact on rangeland or on the livestock that may graze these lands. Livestock may congregate near structures for shade or other purposes.

4.4.1.2 Urban and Developed Areas

Though predominately rural, there are still homes scattered throughout the area, mostly concentrated along highways and other local roads. The adjusted Proposed Route would be constructed within 500 feet of 46 homes, although only 7 of these homes would be within 150 feet of the Proposed Route and only 21 would be located between 151 and 300 feet. An adjustment made to the Proposed Route following the

route evaluation (Section 4.1) to follow a road corridor reduced impacts to gray bat habitat, reclaimed mine lands, and wetlands but increased the number of homes located close to the line. This adjustment was made along the southern portion of the Proposed Route in Missouri. Many of the houses within 500 feet of the new Proposed Route are on the opposite side of the road from the adjusted Proposed Route. Despite this increase, the residential impact is still relatively low for an approximately 94-mile route. There are no identified businesses or public facilities located within 500 feet of the adjusted Proposed Route.

During easement negotiations, NEET Southwest and its land agents would work with individual homeowners to minimize impacts to their homes and properties to the extent possible, while still balancing overall cost and environmental impacts.

The adjusted Proposed Route crosses some apparent active oil / gas fields. Based on the Kansas DASC active well data and an attempt to identify wells during the route field review along public roads, the adjusted Proposed Route would have 8 wells or tanks within its ROW. However, the data is not reliable as it was difficult to accurately locate all wells and tanks from public roads and the Kansas DASC data does not appear to be exceptionally accurate. NEET Southwest will complete a field survey along the Proposed Route to verify locations of active wells and will make any necessary adjustments as needed to minimize impacts to those actually located in the ROW.

The adjusted Proposed Route crosses approximately 51,930 feet (approximately 10% of the total route length) of areas that were previously mined, based on a review of historic mine maps and data. These areas may contain contaminated soils, soil mounds, wetlands, and other features that may require design modifications, structure shifts, or alignment shifts once field surveys are completed along the Proposed Route. Due to the high amount of mining activity in the southeastern Study Area it would be difficult to identify a route that does not cross previously mined lands.

4.4.1.3 Recreation Areas

No lands crossed by the Proposed Route (other than the Prairie Spirit Trail discussed in Section 4.3.5 above) are reserved for recreational use. However, outdoor recreational opportunities, such as hunting and fishing, may occur on private lands within the forested and agricultural areas and along creeks. The Proposed Route crosses reclaimed mine lands in the southern portion of the Project area where there may be a slightly greater concentration of hunting activities. Limited, temporary impacts to seasonal hunting activities may occur during construction of the transmission line.

4.4.1.4 Transportation and Aviation

Construction of the Proposed Route may result in some brief disruption of traffic during stringing of the line and hauling of material to the job site. Most roads in the Study Area are considered local routes, some of which are crossed by the Proposed Route. The Proposed Route crosses 12 U.S. and State highways and an additional 100 local roads. The Proposed Route crosses eight railroad corridors, but four of the crossings appear to be inactive railroads. Three crossings are of the Wolf Creek Plant spur, which is the origin of this Project. Railroads are owned by BNSF, SKOL, KCS, and UP. NEET Southwest would adhere to city, county, state, and federal regulations for road and railroad crossings and would coordinate with KDOT and MODOT to verify State-requirements are met and to acquire permits as needed. Necessary coordination and permits would also be obtained from BNSF, SKOL, KCS, and UP for the railroad crossings.

The Proposed Route is located outside the identified airspace obstruction surfaces near the Atkinson Municipal Airport and does not appear to be located near any private airstrips. Preliminary structures have been filed with the FAA at locations closest to the Atkinson Municipal Airport to verify obstruction calculations. Although not anticipated, modifications will be made to the structures or alignment should any be identified by the FAA as an airspace obstruction.

4.4.1.5 Utilities and Communication Towers

The Proposed Route crosses 10 existing transmission lines. The operation of the new 345-kV line would result in an overall increased reliability of electrical service both in and out of the Study Area. NEET Southwest has adjusted the Proposed Route so that most existing line crossings would be located at the mid-span (low point of the conductors) between structures to keep the height of the new line lower. The Proposed Route also crosses 10 large-diameter gas, oil, and petroleum transmission and gathering lines as well, and there may be oil and gas wells located close to the Proposed Route or even in the ROW. NEET Southwest would coordinate with the other utility owners during construction as needed to minimize impacts to active facilities.

There is only one communication tower located within 500 feet of the Proposed Route. It is located just north of the Wolf Creek Substation on the west side of Oxen Lane. According to FCC data, it contains both Antenna Structure Registration (ASR) and microwave antennas registered to Evergy. While this tower would be within 500 feet of the Proposed Route, the line would not affect the tower or the guy lines, nor would any impact to the tower be anticipated due to the presence of the substation, power plant, and other existing transmission lines already in the vicinity of the tower.

4.4.2 Socioeconomic Patterns

This section addresses the potential impacts of the Proposed Route on the socioeconomic patterns in the Study Area. The topics include population, employment, and income.

4.4.2.1 Population

Construction and operation of the Proposed Route would not directly result in a change in the population in the Study Area. However, the Project would help to meet the electrical needs of the area and increase reliability of the electrical system in the vicinity. Reliable electric service is important to residents and can be a significant factor in the location of many industries. The Proposed Route also avoids densely populated areas. There are some slightly more densely developed areas where the Proposed Route approaches Pittsburg, but the Proposed Route avoids the majority of development associated with the city.

4.4.2.2 Employment and Income

Construction and operation of the new line would not significantly affect employment in the Study Area. The construction work force would be small and temporary. Workers would likely commute on a daily or weekly basis to the construction area. The presence of additional workers may result in a slight increase in retail sales in and near the Study Area due to purchases of food, fuel, and other merchandise. No additional staff would be expected for Project operations. By helping to relieve electrical congestion and improving reliability, industries and businesses may be attracted to the area in the future, thereby increasing the potential for employment in and around the Study Area. The Project would also increase the tax base in Coffey, Anderson, Allen, Bourbon, Crawford, Barton, and Jasper counties because NEET Southwest would pay property taxes based on the value of the new electric transmission line.

4.4.3 Cultural Resources

The route identification process included avoidance of known historical and archaeological resources based on a records search within one mile of the preliminary alternative routes within the Study Area conducted by Burns & McDonnell using data provided by the Kansas and Missouri SHPOs. This search indicated there were no known NRHP-listed or eligible archaeological sites or historic structures that may be crossed by or within a quarter-mile of the adjusted Proposed Route, nor were there any unevaluated, documented cultural sites located within the Proposed Route ROW. Because much of the area has not been surveyed, additional investigations may reveal sites or areas of cultural concern. If the SHPOs or Tribal Historic Preservation Office (THPO) require an archaeological survey of portions of the Proposed Route, NEET Southwest would retain a consultant to perform the survey and submit the results, and any

proposed mitigation would be coordinated with the SHPOs and/or THPO. Structure placement generally can be adjusted to avoid most archaeological sites.

4.4.4 Visual Character

The visual character of an area is a function of the terrain, land cover and land use. Construction and operation of the transmission line would impact the existing aesthetics of the Study Area through which the line passes, primarily due to the clearing of trees and the introduction of a new linear facility.

The transmission line could create some visual contrast with the surrounding environment. The Proposed Route was routed to parallel existing lines when possible to help keep visual impacts in a common corridor. The Proposed Route would parallel existing lines for approximately 26 percent of its length. Where present, surrounding forest vegetation and terrain may also help to provide visual screening of the transmission line. Crossing open agricultural or pastureland can make the line more visible from viewpoints with a long perspective. Additionally, the line would be seen at road crossings and where the line is constructed near or along roads, although only about two percent of the Proposed Route would be constructed along a road. Visibility from the roads, especially at road crossings, would be temporary and fleeting, due to the normal flow of traffic.

4.5 Proposed Route Impact Summary

The construction and operation of the proposed Project would have limited impacts on natural and social resources in the Study Area. The following is a summary of the impacts of the Proposed Route.

The Proposed Route would have relatively minor overall impacts because many resources can be spanned or have been avoided during the route identification and analysis process described in Chapter 3.0. The Proposed Route was one of the shortest routes and, as a result, would have relatively low land use impacts. The Proposed Route would not impact flights into and out of the Atkinson Municipal Airport and parallels existing transmission lines for over a quarter of its length. Furthermore, the Proposed Route would have one of the lowest impacts to the natural environment, including low impacts to protected species habitat, wetlands, and floodplains. The results of this analysis indicate the Proposed Route would have relatively low overall impacts to the social and natural environment. Mitigation measures as described in Chapter 5.0 would also help to further minimize the potential impacts of this Project.

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5.0 MITIGATION MEASURES

Mitigation measures are those steps undertaken to reduce the potential impact of the construction or operation of a project on natural and social resources. The primary forms of mitigation are avoidance of potential negative impacts, which typically occurs during the initial route development, and minimization, such as paralleling new lines adjacent to existing lines to reduce the required ROW width and overall impacts.

This section includes a discussion of the steps taken to avoid negative impacts through the routing and design of the proposed transmission line. For those impacts that could not be avoided, recommended measures for reducing impacts are described. If impacts cannot be avoided or minimized to the extent that no substantial adverse effect is expected, additional mitigation may be required by the agencies in charge of the resource affected.

5.1 Mitigation of Natural Resource Impacts

The Proposed Route would traverse approximately 94 circuit miles of new transmission line from the existing Wolf Creek Substation to the Blackberry Substation, depending on the final route approved by the KCC and MPSC. The primary issues discussed in Chapter 4.0 regarding natural resources were soil and erosion control, water resources and wetlands, and threatened and endangered species. Measures to reduce or eliminate potential negative impacts to these resources are described below.

5.1.1 Soil and Erosion Control

NEET Southwest would submit an erosion control plan to the KDHE and MDNR for approval prior to Project construction. NEET Southwest may be able to file a simplified plan, since ROW clearing typically only involves cutting of vegetation above-ground, with no “blading,” “grubbing,” or other typical land-disturbing activities. NEET Southwest also limits impacts to stream buffers and other “sensitive” areas by using internal construction buffers that must be hand-cleared during construction, in addition to the “sensitive” area itself.

In upland areas, holes for each structure would be dug with an auger, and the structures would be erected using a crane. Most structures would be buried directly in the ground. Excess soil from the structure excavations in uplands would be evenly distributed around each structure and the soil stabilized. Excess soil in wetland areas would be transported to upland areas and stabilized. Structures have been sited in uplands outside of wetlands and streams. Temporary access roads may traverse wetlands. In these instances, crossing locations will be located to minimize the length of the wetland crossings and construction matting will be used. Similarly, some streams might be crossed with temporary culverts or

bridges. Access routes will also be selected to reduce impacts by following existing ground contours. Areas disturbed by construction activities would be restored by establishing an appropriate ground cover to limit erosion of the soil.

Where possible, contractors would use existing access roads along the ROW that are paralleled. If new access roads are required, they would be routed, where practicable, to follow present land contours and limit clearing and surface changes.

5.1.2 Protection of Water Resources and Wetlands

NEET Southwest would survey the Proposed Route for jurisdictional waters and wetlands. NEET Southwest's standard transmission ROW clearing and line construction practices call for avoiding impacts to waters and wetlands to the extent practicable. All vegetation is cut to near-ground level. Vegetative buffers adjacent to streams are left as appropriate (only low-growing vegetation can be left). No "blading" or "grubbing" of stumps is allowed, and remaining root mats typically sprout and quickly re-vegetate ROW with native species. Remaining stumps help maintain stream bank stabilization. Temporary access roads may cross wetlands with construction matting and streams might be crossed with temporary culverts or bridges.

There would be no change in contours or redirection of water flow, and the amount of spoilage from the installation of structures would be limited. Any excess spoilage would be spread evenly around the structure location. Trees outside of the ROW corridor tall enough to endanger the line if they fell ("danger trees") would be selectively cut.

If required, NEET Southwest would work closely with the USACE, KDHE, and MDNR to comply with the applicable regulations and permit conditions, if necessary. Additional mitigation measures may be implemented following consultation with the USACE for Section 404 compliance, if required.

5.1.3 Protected Species

Tree clearing outside of the gray bat active season (April 1 to October 31) is an agency recommended measure that the NEET Southwest team would implement for the Project to minimize and avoid impacts to the gray bat. Unless the project directly impacts a roost cave or hibernaculum structure, the USFWS will not require mitigation for gray bats simply for clearing trees during the winter. Currently no known roost caves or hibernaculum structures are located in proximity to the Proposed Route.

The NEET Southwest team is minimizing the amount of tree clearing required along the Proposed Route and would implement tree clearing for the Project outside of the Indiana bat roosting season (April 1 to

October 31) to mitigate for any potential Indiana bat impacts. Likewise, NEET Southwest would implement tree clearing for the Project outside of the northern long-eared bat pup rearing season (June 1 to July 31), so no impacts to this species are anticipated.

Based on conversations with KDWP, potential measures that would be implemented to mitigate for impacts to designated critical habitat for the eastern spotted skunk and broadhead skink include stacking cut timber in piles or placing individual logs in upland areas along the edges of woodlands and the Project right-of-way to provide refuge habitats for these species.

Additional communication with the USFWS, KDWP, and MDC regarding potential impacts concerning state and federally protected species would occur during the permitting phase of the Project. State or federally protected species known to occur within the Study Area or near the Proposed Route ROW are not expected to be adversely impacted.

Eagle nest surveys will be conducted prior to construction of the Proposed Route and construction activity around active nests will be avoided until eagles have fledged, in coordination with the USFWS.

Based on preliminary inquiries with the regulatory agencies, the NEET Southwest team intends to implement appropriate Best Management Practices (BMPs) during construction to intercept stormwater runoff that could be carrying silt and sediment and protect off areas outside of the Project footprint. The type and location of these BMPs would be identified and during the permitting phase of the Project and coordinated with the KDHE and MDNR.

If necessary, NEET Southwest would hire a consultant to conduct a survey of the Proposed Route to determine whether potential habitat for protected species is likely to be impacted by the Proposed Route. If habitat is found along the Proposed Route, surveys to determine the presence or absence of protected species along the Proposed Route may be necessary. If mitigation is required to avoid damage to protected plant and wildlife species communities or habitat, NEET Southwest would implement strategic structure placement, avoidance, or other USFWS, KDWP, or MDC recommendations.

5.2 Mitigation of Social Resource Impacts

The main issues discussed in Chapter 4.0 related to social resources were land use, cultural resources, and visual character. Measures to avoid or reduce potential negative impacts to these resources are described below.

5.2.1 Land Use

All routes that were initially developed were developed to limit impacts to residences and other land uses where possible. The Proposed Route was identified to avoid areas with dense residential subdivisions and commercial operations as much as possible. Following award of the Project, NEET Southwest began to work with individual landowners, as needed, to reach mutually acceptable solutions to the extent feasible for land use conflicts that may arise.

5.2.2 Cultural Resources

The route identification process included the avoidance of known historical and archaeological resources. In this instance, no NRHP-listed or eligible sites, nor any unevaluated sites, were found to occur along the Proposed Route. No mitigation for the protection of cultural resources is anticipated at this time. In coordination with the SHPOs and relevant THPOs, NEET Southwest will complete archaeological surveys along the Proposed Route. If the survey results in the discovery of any sites that could be considered eligible for the NRHP, the line or structures could be adjusted to avoid the sites, or other actions would be taken as recommended by the SHPOs or THPO. Should impacts to sites that could be considered eligible for the NRHP be unavoidable, the survey findings would be submitted to the SHPOs and THPOs, and any proposed mitigation would be coordinated with the SHPOs and THPOs.

5.2.3 Visual Character

Most of the structures for the proposed Project would be monopoles. Single pole structures can be less visible than other structure types because there is only one pole to be viewed for each structure, as opposed to two poles for H-frame structures or guyed v-structures and a web of steel for lattice towers. NEET Southwest intends to use concrete material for their structures. This material can be less visible at longer distances where the color blends better with the background but may be more visible at closer ranges than other structure materials, such as weathering steel. While spans may be shorter for single poles vs. H-frames, the vertical alignment of the conductors allows for a narrower ROW and less clearing and creates a more vertical view as opposed to a wider horizontal view. Where practicable, structures would be located to take advantage of any existing vegetation for screening from residences and roadways. Typically, the structure itself creates the most visual contrast for a transmission line, so longer spans would result in fewer overall structures and less overall visual impact compared to other structure designs. Because angle structures are larger, require more space, and hence are more visible, all routes were designed to minimize the number of such structures to the extent practicable, while also avoiding residences and other known constraints.

5.3 Conclusion

By following NEET Southwest's standard clearing and construction practices, the route selection process described, and the above mitigation techniques, most potential impacts along the Proposed Route would either be avoided or minimized. As a result, the construction and operation of the Proposed Route would have limited effects on the natural and social resources.

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6.0 PUBLIC INVOLVEMENT & PROJECT OUTREACH

6.1 Public Involvement Overview

To determine community values relative to the Project, the route selection process included several forms of public input, including communications with county commissioners and public interest groups, virtual public open houses, and direct landowner communication. All input was used to assess the values and attitudes of the stakeholders regarding the Project and facilitate further refinement of the Proposed Route.

6.2 Identifying Project Stakeholders

6.2.1 Potentially Affected Landowners

Potentially affected landowners are an integral part of any project, and communications with those individuals are paramount to a successful project. After the Project's Proposed Route and corresponding route alternatives were developed, the Burns & McDonnell public involvement team created notification boundaries to identify potentially impacted parcels and landowners. For the Kansas portion of the Project, this boundary was drawn 1,000 feet from the centerline of the Proposed Route and proposed alternatives running through Coffey, Anderson, Allen, Bourbon, and Crawford Counties; the Missouri boundary was 300 feet through Barton and Jasper Counties.

6.2.2 Elected Officials

It is important to keep elected leadership well-informed of the Project, the goals and impacts that it may have on the area, and the Project team's plans for engaging the local residents and stakeholders. All Project communications distributed to landowners were also sent to the appropriate elected public offices, including state and federal officials, and other elected officials from municipalities and counties.

6.3 Project Communications

The Project team used the communication tools outlined in this section to inform and educate stakeholders of the affected communities in both Kansas and Missouri about the Project in a proactive manner, making Project messaging readily available to interested parties across a variety of channels and allowing for two-way communication between Project team members and public stakeholders.

In conjunction with NEET Southwest, the Burns & McDonnell public involvement team helped develop Project messaging to communicate with the public. This messaging includes Project specifics, past NEET Southwest endeavors, and industry best practices.

6.3.1 Project Hotline and Email

During the initial phases of Project outreach, Burns & McDonnell established and managed a toll-free Project hotline with a local prefix. This portal has allowed the Project team to interact with landowners and community stakeholders and ascertain prevalent questions and concerns that the public may have. A Project email address was also created and managed by NEET Southwest.

The hotline and email address that were established for the initial public outreach and open house process will remain in effect throughout the Project's development and construction phases so that stakeholders can continue to provide input and ask questions of the Project team. All hotline voicemails are logged by the public involvement team and forwarded to the larger Project team for consideration and response. The hotline number is 620-205-2051. The email address is neetsw@nexteraenergy.com. As of May 6, 2022, there have been 18 messages left on the Project hotline and 15 emails received to the Project email address.

6.3.2 Project Website

Key Project messaging and associated materials were incorporated into an intuitive Project website that provides relevant information to the public and landowners. In tandem with the Project hotline and email address, a contact form was integrated on the website and utilizes the same approach regarding returning messages. Periodic updates on Project progress, public meetings, maps, and other Project news will be updated on the website throughout the life of the Project's development and construction. The URL for the Project website is: www.nexteraenergytransmission.com/subsidiaries/neetsw/projects/wolf-creek-blackberry.html.

The Project website was established early in the Project and includes information regarding Project need and benefits, schedule, public meeting information, maps, and frequently asked questions and answers. The Project website includes the following sections:

- Site home page, which functions as the primary landing page for stakeholders to learn about the Project and navigate throughout the site functions and subpages to find more information. On this page, stakeholders are given the following segments of information:
 - An overview map of the entire project area and Proposed Route; this map is also hyperlinked and made available to download
 - Project overview giving a brief background on the Project
 - Callout banner for the virtual open house and a link to the open house subpage
 - Breakdown of the Project benefits

- Project fact sheet linked for download
- Graphic outlining the general timeline anticipated
- Information on the Project’s intended structure design including a visual rendering and photograph for better explanation
- Contact information to the Project hotline and email address
- FAQs
- Contact Us page where stakeholders can submit feedback and connect with Project team members. In tandem with the hotline and email, the Contact Us portal employs the same approach regarding returning messages.

The Project’s inclusive approach to stakeholder engagement necessitates the development of input portals. The website allows stakeholders to obtain Project information and offers them multiple avenues through which they can contact or interact with Project team members. Appendix C contains screenshots of the Project website along with copies of other materials available for download on the site.

6.3.3 Open House Invitations

6.3.3.1 Mailing List

After the Project’s Proposed Route and corresponding route alternatives were developed, Burns & McDonnell developed a mailing list for landowner notifications that included both parcel situs and mailing addresses to better disseminate information to all appropriate parties. The mailing lists were not only used during the virtual open house postcard distribution, but also allowed the Project team, including land agents, to better identify and catalog future communications with landowners.

6.3.3.2 Landowner Postcards

On Monday, Feb. 28. 2022, the Burns & McDonnell public involvement team mailed color postcard invitations to the potentially affected landowners list. These postcards were also sent to elected officials and key personnel for each county and their respective cities. A copy of the postcard is located in Appendix D.

Table 6-1: Parcels & Landowners by County

County	Potentially Affected Parcels	Potentially Affected Landowners
Allen County, KS	148	103
Anderson County, KS	54	43
Bourbon County, KS	35	15

County	Potentially Affected Parcels	Potentially Affected Landowners
Coffey County, KS	69	42
Crawford County, KS	232	148
Barton County, MO	24	18
Jasper County, MO	10	9
Total	572	378

6.3.3.3 Newspaper Advertisements

As part of the communications process for the virtual open house events, local newspapers serve as a valuable resource for disseminating information and effectively reaching local communities. As such, Burns & McDonnell identified relevant newspaper publications in each affected county to publish full color, quarter-page advertisements announcing the upcoming virtual open houses and key information. Each publication’s ad ran at least two-weeks prior to the open houses to allow ample opportunity and prior notice for interested individuals to attend.

Table 6-2: Newspaper Advertisements

County	Publication	Publication Date
Allen County, KS	Iola Register	03/02/2022
Anderson County, KS	Anderson County Review	03/01/2022
Bourbon County, KS	Fort Scott Tribune	03/02/2022
Coffey County, KS	Coffey County Republican	03/03/2022
Crawford County, KS	The Morning Sun	03/04/2022
Barton County, MO	Lamar Democrat	03/02/2022
Jasper County, MO	The Joplin Globe	03/03/2022

Identification of these newspapers involved web research to identify the best publication for each county, and ultimately was decided by selecting the largest newspaper for its corresponding county to have the greatest potential community reach. The newspaper ads included a unique URL to the open house registration page to track the number of individuals who registered for the event after seeing the ad; a total of 10 respondents visited the registration page directly from the newspapers’ ads. Scanned copies for the newspapers’ advertisements are in Appendix D.

6.4 Virtual Open Houses

Due to concerns over the COVID-19 pandemic and considering the health and safety of the community and team members, NEET Southwest elected to host virtual events in lieu of traditional, in-person open houses. The well-being of the Project's communities has always been NEET Southwest's and Burns & McDonnell's highest priority, and as such, NEET Southwest and Burns & McDonnell sought to provide the safest environment for landowners to engage with the Project team.

6.4.1 Overview

The intent of the virtual public open house was to provide potentially affected landowners, business owners, and other stakeholders near the Proposed Route with an understanding of the need for the Project and the decision-making process used to select the Proposed Route and to provide a forum to voice their questions and concerns about the Project.

Under the direction of NEET Southwest, the Burns & McDonnell public involvement team led the virtual public open house presentations via the Microsoft Teams platform. This platform allows attendees to view presentation materials, hear from Project representatives, and engage in a Question & Answer (Q&A) session using the platform's question dialogue portal. Attendees were also given a 'call-in only' feature, allowing those with limited internet access to participate by listening throughout the event. A recording of both sessions was captured and uploaded on the Project website.

6.4.2 Event Logistics

NEET Southwest, as coordinated by the Burns & McDonnell public involvement team, hosted two virtual public events on Tuesday, March 22, 2022; one morning session from 10:00-11:00 am CST and an evening session from 6:00-7:00 pm CST. During the initial event planning process, the Project team determined that having two sessions at varying times of day would better accommodate stakeholders' schedules and encourage participation. A total of 51 individuals joined the morning session, with an additional 13 people utilizing the call-in only feature. The evening session had 39 total attendees with an additional 25 on the call-in feature.

As discussed in Section 6.3.3.2, informational postcards describing the Project and advertising the virtual public open houses were mailed to landowners and elected officials approximately 2 weeks prior to the events. This information was also published in local newspapers (Section 6.3.3.3) and made available on the Project's website. Through these methods of invitation, the following is a breakdown of total registrants prior to the virtual open house.

Table 6-3: Open House Registrants by Source

Source	Number of Registrants
Newspaper Ads	10
Postcard Invitations	48
Website	2

6.4.3 Open House Presentation, Materials, and Engagement

During the virtual open house sessions, the NEET Southwest team presenters included representatives from Development and Engineering & Construction who presented information on the following topics:

- Background on NEET
- Background – Project Need
- Wolf Creek – Blackberry 345-kV Transmission Line Project
- Project Benefits
- Routing Considerations
- Engineering Design and Construction Activities
- Right-Of-Way Easements
- Anticipated Project Schedule
- Operations and Maintenance
- Q&A Session

Along with the three presenters, the Q&A sessions also featured four additional subject matter experts representing areas of Land, Environmental, Operations, and General Counsel to provide better insight to landowners’ potential questions. In total, there were 32 landowner questions received during the morning session and 33 questions during the evening session. The open house presentation and transcripts of both sessions, as well as a copy of the questions received during each event, can be found in Appendix E.

6.4.4 Open House Materials

Information presented during the public meetings was also posted on the Project website, which allows landowners and other interested parties the opportunity to review this information if they were not able to attend the open houses. Recordings from both sessions were also uploaded to the Project website for those unable to attend the event. Copies of these materials can be found in Appendix C.

6.4.5 Comments Collected

Comments and information obtained during the open houses was evaluated by the Project team and shared with the appropriate land agents to help formulate and deliver a response to the landowner. This content is being compiled in a manner that allows the Project team to assess public opinion, determine if Project modifications are needed and appropriate, and select a final route.

From these open house efforts, the Project team received two landowner inquiries regarding the Project route development and requesting a route modification. As with all other comments and questions received through the Project communication portals, these requests were evaluated by the Project team. A follow-up, in-person meeting was held with the landowners to fully understand the landowner's primary concerns and internal coordination to finalize the route in this area is on-going.

6.5 Additional Outreach Activities

6.5.1 Ongoing Land Agent / Landowner Communications

In order to provide right-of-way services for the Project, NEET Southwest retained Doyle to organize a team of five land agents to identify parcel ownership and communicate with landowners about the Project. As part of this effort, Doyle has assigned each land agents approximately 60 individual property tracts of land in segments along the Project route to coordinate landowner outreach with.

The Project team began initial outreach through phone calls and door-to-door visits along the Proposed Route beginning in January 2022. The goal of this initial outreach was to introduce the land agent team, as well as educate landowners about the Project. During those initial outreach efforts, if land agents' first attempts to reach potentially affected landowners were not successful (e.g., the landowner was not home during visit or did not answer outreach phone calls,) the land agents mailed a basic postcard referencing the Project and including the land agent's contact information.

Since January, Project land agents have made contact with approximately 95% of the landowners along the Proposed Route and have received permission to perform surveys on roughly 60 miles of the Proposed Route. The team has also responded to hundreds of requests for information through the land agents in the field or the Project hotline. The land agents continue to work closely with landowners on a daily basis to coordinate surveys and address property-specific needs and concerns. Land agents have started initial easement negotiations with around 80% of affected landowners and anticipate that number reaching 100% by the end of 2022.

7.0 PROPOSED ROUTE ADJUSTMENTS AND ONGOING SURVEYS

Since the selection of NEET Southwest by SPP in December of 2021, the team has continued to make data updates, to work with landowners, to perform additional studies / surveys, and to continue agency outreach activities. These Project efforts are described in the following sections and are ongoing but will end prior to the approval by KCC and MPSC.

7.1 Data Updates

The primary source of the data used in the routing analysis was aerial imagery from previous years. Aerial imagery was updated to use 2021 NAIP data in 2021 for the counties along the Proposed Route. Other digital data, such as roads, parcels, protected lands, threatened and endangered species, and wetlands, acquired from various federal and state agencies and sources, was also re-downloaded in 2021 if updates were available. These updates have allowed NEET Southwest to assess if any major changes have occurred related to resource data used in the route analysis described in Chapter 3.0.

7.2 Stakeholder Considerations

Through the outreach plan described above, stakeholders have been steadily providing NEET Southwest with additional information. NEET Southwest continues to evaluate information coming in from stakeholders to reach agreeable solutions with stakeholders.

Following the open houses multiple requests for route changes were received from landowners. As a result of the landowner requests the project team has modified the location of 54 different structures.

NEET Southwest will continue to work with stakeholders until the Proposed Route is filed with the KCC.

7.2.1 Engineering Revisions

Prior to the open house NEET Southwest routing, environmental, and engineering teams investigated potential route adjustments to reduce overall line length and eliminate higher cost angle structures in 2022. These investigations led to eliminating points of inflection along the Proposed Route. There were four areas where PIs were removed to straighten the line, the majority of these PIs were minor angles and generally did not affect the overall alignment of the Proposed Route. The Proposed Route was also modified to avoid infrastructure associated with the recently constructed Jayhawk Wind Farm. The original route would have passed over the newly built substation for this wind farm; this change introduced three PIs into the final alignment.

7.2.2 Environmental Revisions

During detailed review of the Proposed Route, proposed pole placement was adjusted to avoid wetland impacts or archaeological sites identified during field surveys. These structure shifts generally do not impact the overall alignment of the Proposed Route as they typically can be shifted within the current alignment of the Proposed Route.

7.3 Additional Surveys / Studies

After the Proposed Route was identified, additional detailed surveys were undertaken to provide additional information related to potential impacts along the Proposed Route. Field work has been conducted on the following days to date:

- Wetland delineation and protected species habitat assessment field surveys: March 28 – April 15, 2022, as well as May 2 – 5, 2022
- Stick nest surveys: April 1, 2022
- Cultural surveys: March 28 – April 1, 2022; April 11 – 15, 2022; and May 3, 2022
- Tribal field review: March 30 – April 4, 2022
- Geotechnical Investigation: April 4, 2022 – April 29, 2022
- Boundary and Utility Land Surveys: March 28, 2022 – May 6, 2022

Additional surveys will be completed if necessary.

7.4 Agency Coordination

Agency outreach and coordination is ongoing on the Project. On April 18, 2022, letters were sent to the USFWS, MDC, and KDWP containing general Project information and requesting any species or habitat data related to threatened, endangered, proposed, and candidate species; eagles; protected habitats; bats; and conservation concern birds.

On April 19, 2022, representatives for each county were sent a letter containing general Project information and requesting information related to county road and ROW permitting, regulations, and agreements; county floodplain permitting; and county building / construction permitting.

Copies of these letters can be found in Appendix F.

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APPENDIX A – ROUTE DATA

Appendix A - Route Data for All Routes
 Wolf Creek - Blackberry

Route	Segments	Total Length (ft)	Total Length (mi)	Angles Over 30 Degrees (count)	Highway Crossings (count)	Other Roadway Crossings (count)	Length Not Along Existing Transmission Line (feet)	Length Not Along Roads (feet)	Oil/Gas Wells/Tanks in ROW (count)	Number of Pipeline Crossings (count)	Length Through Previously Mined Area (feet)	Transmission Line Crossings (count)	Stream Crossings (count)	Waterbodies in ROW (acres)	Wetlands in ROW (acres)	Gray Bat Critical Habitat in ROW (acres)	Woodland within Gray Bat Critical Habitat in ROW (acres)	Eastern Spotted Skunk Critical Habitat in ROW (acres)	Broadhead Skink State Critical Habitat in ROW (acres)
1	1,2,8,19,25,26,27,29,37,38A,38B,38C,38D,38E,42,44	606,040	114.8	22	11	103	501,280	502,580	0	14	69,380	9	182	13.8	46.6	0.0	0.0	205.9	246.1
2	1,2,8,19,25,26,27,29,37,38A,38B,48,38D,38E,42,44	613,910	116.3	24	11	106	509,150	503,030	0	14	65,450	9	183	11.2	47.2	0.0	0.0	205.9	246.1
3	1,2,8,19,25,26,27,29,37,38A,45,46,38E,42,44	601,140	113.9	25	11	104	496,380	500,030	0	14	59,730	9	184	11.2	41.9	71.6	3.4	205.9	242.0
4	1,2,8,19,25,26,27,29,37,38A,45,47,41B,42,44	604,100	114.4	25	11	106	499,340	502,990	0	14	59,890	11	179	12	42.4	141.0	11.6	205.9	250.3
5	1,2,8,19,25,26,27,29,37,39,41A,41B,42,44	599,830	113.6	23	11	109	495,070	476,020	0	14	61,990	11	177	13.9	43.2	146.5	21.6	205.9	257.6
6	1,2,8,19,25,26,27,30,31,36,37,38A,38B,38C,38D,38E,42,44	571,840	108.3	18	13	103	388,070	476,360	2	14	63,500	9	195	16.5	44.2	0.0	0.0	205.9	115.0
7	1,2,8,19,25,26,27,30,31,36,37,38A,38B,48,38D,38E,42,44	579,710	109.8	20	13	106	395,940	476,800	2	14	59,570	9	196	13.9	44.7	0.0	0.0	205.9	115.0
8	1,2,8,19,25,26,27,30,31,36,37,38A,45,46,38E,42,44	566,940	107.4	21	13	104	383,170	473,810	2	14	53,860	9	197	13.9	39.4	71.6	3.4	205.9	110.9
9	1,2,8,19,25,26,27,30,31,36,37,38A,45,47,41B,42,44	569,900	107.9	21	13	106	386,130	476,760	2	14	54,020	11	192	14.7	39.9	141.0	11.6	205.9	119.2
10	1,2,8,19,25,26,27,30,31,36,37,39,41A,41B,42,44	565,630	107.1	19	13	109	381,860	449,800	2	14	56,110	11	190	16.6	40.7	146.5	21.6	205.9	126.5
11	1,2,8,19,25,26,27,30,31,40,41A,41B,42,44	557,100	105.5	18	14	104	358,590	451,360	2	16	54,060	11	191	13.4	35.4	201.4	32.8	205.9	124.9
12	1,2,8,19,25,26,27,30,32,34,36,37,38A,38B,38C,38D,38E,42,44	587,920	111.3	19	13	100	477,550	492,440	0	16	63,500	11	171	13.4	42.1	0.0	0.0	205.9	139.2
13	1,2,8,19,25,26,27,30,32,34,36,37,38A,38B,48,38D,38E,42,44	595,800	112.8	21	13	103	485,420	492,890	0	16	59,570	11	172	10.8	42.6	0.0	0.0	205.9	139.2
14	1,2,8,19,25,26,27,30,32,34,36,37,38A,45,46,38E,42,44	583,030	110.4	22	13	101	472,650	489,890	0	16	53,860	11	173	10.8	37.4	71.6	3.4	205.9	135.1
15	1,2,8,19,25,26,27,30,32,34,36,37,38A,45,47,41B,42,44	585,980	111	22	13	103	475,610	492,850	0	16	54,020	13	168	11.6	37.9	141.0	11.6	205.9	143.4
16	1,2,8,19,25,26,27,30,32,34,36,37,39,41A,41B,42,44	581,710	110.2	20	13	106	471,330	465,890	0	16	56,110	13	166	13.5	38.6	146.5	21.6	205.9	150.7
17	1,2,8,19,25,26,27,30,32,34,40,41A,41B,42,44	573,190	108.6	21	14	101	448,060	467,440	0	18	54,060	13	167	10.3	33.3	201.4	32.8	205.9	149.1
18	1,2,8,19,25,26,27,30,32,35,43,44	568,810	107.7	19	14	102	473,150	475,320	0	15	20,220	12	168	8.7	32.5	88.3	25.0	205.9	137.5
19	1,2,8,19,25,26,28,33,43,44	575,720	109	18	14	104	438,190	482,230	0	15	20,220	12	186	13.1	38	88.3	25.0	205.9	148.7
20	1,2,9,12,13,17,18,19,25,26,27,29,37,38A,38B,38C,38D,38E,42,44	556,820	105.5	20	10	99	502,500	517,740	1	10	69,380	10	168	13.5	48.1	0.0	0.0	65.7	246.1
21	1,2,9,12,13,17,18,19,25,26,27,29,37,38A,38B,48,38D,38E,42,44	564,700	106.9	22	10	102	510,380	518,190	1	10	65,450	10	169	10.9	48.6	0.0	0.0	65.7	246.1
22	1,2,9,12,13,17,18,19,25,26,27,29,37,38A,45,46,38E,42,44	551,930	104.5	23	10	100	497,610	515,190	1	10	59,730	10	170	10.9	43.4	71.6	3.4	65.7	242.0
23	1,2,9,12,13,17,18,19,25,26,27,29,37,38A,45,47,41B,42,44	554,880	105.1	23	10	102	500,560	518,150	1	10	59,890	12	165	11.7	43.9	141.0	11.6	65.7	250.3
24	1,2,9,12,13,17,18,19,25,26,27,29,37,39,41A,41B,42,44	550,610	104.3	21	10	105	496,290	491,190	1	10	61,990	12	163	13.6	44.6	146.5	21.6	65.7	257.6
25	1,2,9,12,13,17,18,19,25,26,27,30,31,36,37,38A,38B,38C,38D,38E,42,44	522,620	99	16	12	99	389,290	491,520	3	10	63,500	10	181	16.2	45.6	0.0	0.0	65.7	115.0
26	1,2,9,12,13,17,18,19,25,26,27,30,31,36,37,38A,38B,48,38D,38E,42,44	530,490	100.5	18	12	102	397,170	491,970	3	10	59,570	10	182	13.6	46.2	0.0	0.0	65.7	115.0
27	1,2,9,12,13,17,18,19,25,26,27,30,31,36,37,38A,45,46,38E,42,44	517,720	98.1	19	12	100	384,400	488,970	3	10	53,860	10	183	13.6	40.9	71.6	3.4	65.7	110.9
28	1,2,9,12,13,17,18,19,25,26,27,30,31,36,37,38A,45,47,41B,42,44	520,680	98.6	19	12	102	387,350	491,930	3	10	54,020	12	178	14.4	41.4	141.0	11.6	65.7	119.2
29	1,2,9,12,13,17,18,19,25,26,27,30,31,36,37,39,41A,41B,42,44	516,410	97.8	17	12	105	383,080	464,960	3	10	56,110	12	176	16.3	42.1	146.5	21.6	65.7	126.5
30	1,2,9,12,13,17,18,19,25,26,27,30,31,40,41A,41B,42,44	507,890	96.2	16	13	100	359,810	466,520	3	12	54,060	12	177	13.1	36.8	201.4	32.8	65.7	124.9
31	1,2,9,12,13,17,18,19,25,26,27,30,32,34,36,37,38A,38B,38C,38D,38E,42,44	538,710	102	17	12	96	478,770	507,610	1	12	63,500	12	157	13.1	43.6	0.0	0.0	65.7	139.2
32	1,2,9,12,13,17,18,19,25,26,27,30,32,34,36,37,38A,38B,48,38D,38E,42,44	546,580	103.5	19	12	99	486,640	508,050	1	12	59,570	12	158	10.5	44.1	0.0	0.0	65.7	139.2
33	1,2,9,12,13,17,18,19,25,26,27,30,32,34,36,37,38A,45,46,38E,42,44	533,810	101.1	20	12	97	473,870	505,050	1	12	53,860	12	159	10.5	38.8	71.6	3.4	65.7	135.1
34	1,2,9,12,13,17,18,19,25,26,27,30,32,34,36,37,38A,45,47,41B,42,44	536,770	101.7	20	12	99	476,830	508,010	1	12	54,020	14	154	11.3	39.4	141.0	11.6	65.7	143.4
35	1,2,9,12,13,17,18,19,25,26,27,30,32,34,36,37,39,41A,41B,42,44	532,500	100.9	18	12	102	472,550	481,050	1	12	56,110	14	152	13.2	40.1	146.5	21.6	65.7	150.7
36	1,2,9,12,13,17,18,19,25,26,27,30,32,34,40,41A,41B,42,44	523,970	99.2	19	13	97	449,280	482,610	1	14	54,060	14	153	10	34.8	201.4	32.8	65.7	149.1
37	1,2,9,12,13,17,18,19,25,26,27,30,32,35,43,44	519,590	98.4	17	13	98	474,370	490,490	1	11	20,220	13	154	8.5	33.9	88.3	25.0	65.7	137.5
38	1,2,9,12,13,17,18,19,25,26,28,33,43,44	526,500	99.7	16	13	100	439,410	497,400	1	11	20,220	13	172	12.9	39.4	88.3	25.0	65.7	148.7
39	1,2,9,12,13,17,20,23,26,27,29,37,38A,38B,38C,38D,38E,42,44	539,850	102.2	21	10	99	486,060	519,230	1	10	69,380	10	153	13.7	46.7	0.0	0.0	65.7	212.1
40	1,2,9,12,13,17,20,23,26,27,29,37,38A,38B,48,38D,38E,42,44	547,720	103.7	23	10	102	493,930	519,670	1	10	65,450	10	154	11.1	47.2	0.0	0.0	65.7	212.1
41	1,2,9,12,13,17,20,23,26,27,29,37,38A,45,46,38E,42,44	534,950	101.3	24	10	100	481,160	516,670	1	10	59,730	10	155	11.1	41.9	71.6	3.4	65.7	208.0
42	1,2,9,12,13,17,20,23,26,27,29,37,38A,45,47,41B,42,44	537,910	101.9	24	10	102	484,120	519,630	1	10	59,890	12	150	11.9	42.5	141.0	11.6	65.7	216.3
43	1,2,9,12,13,17,20,23,26,27,29,37,39,41A,41B,42,44	533,640	101.1	22	10	105	479,850	492,670	1	10	61,990	12	148	13.8	43.2	146.5	21.6	65.7	223.6
44	1,2,9,12,13,17,20,23,26,27,30,31,36,37,38A,38B,38C,38D,38E,42,44	505,650	95.8	17	12	99	372,850	493,000	3	10	63,500	10	166	16.4	44.2	0.0	0.0	65.7	81.0
45	1,2,9,12,13,17,20,23,26,27,30,31,36,37,38A,38B,48,38D,38E,42,44	513,520	97.3	19	12	102	380,720	493,450	3	10	59,570	10	167	13.8	44.7	0.0	0.0	65.7	81.0
46	1,2,9,12,13,17,20,23,26,27,30,31,36,37,38A,45,46,38E,42,44	500,750	94.8	20	12	100	367,950	490,450	3	10	53,860	10	168	13.8	39.5	71.6	3.4	65.7	76.9
47	1,2,9,12,13,17,20,23,26,27,30,31,36,37,38A,45,47,41B,42,44	503,710	95.4	20	12	102	370,910	493,410	3	10	54,020	12	163	14.6	40	141.0	11.6	65.7	85.2
48	1,2,9,12,13,17,20,23,26,27,30,31,36,37,39,41A,41B,42,44	499,440	94.6	18	12	105	366,640	466,450	3	10	56,110	12	161	16.5	40.7	146.5	21.6	65.7	92.5
49	1,2,9,12,13,17,20,23,26,27,30,31,40,41A,41B,42,44	490,910	93	17	13	100	343,360	468,000	3	12	54,060	12	162	13.3	35.4	201.4	32.8	65.7	90.9
50	1,2,9,12,13,17,20,23,26,27,30,32,34,36,37,38A,38B,38C,38D,38E,42,44	521,730	98.8	18	12	96	462,320	509,090	1	12	63,500	12	142	13.4	42.2	0.0	0.0	65.7	105.2
51	1,2,9,12,13,17,20,23,26,27,30,32,34,36,37,38A,38B,48,38D,38E,42,44	529,610	100.3	20	12	99	470,200	509,540	1	12	59,570	12	143	10.8	42.7	0.0	0.0	65.7	105.2
52	1,2,9,12,13,17,20,23,26,27,30,32,34,36,37,38A,45,46,38E,42,44	516,840	97.9	21	12	97	457,430	506,540	1	12	53,860	1							

Appendix A - Route Data for All Routes
 Wolf Creek - Blackberry

Route	Segments	Total Length (ft)	Total Length (mi)	Angles Over 30 Degrees (count)	Highway Crossings (count)	Other Roadway Crossings (count)	Length Not Along Existing Transmission Line (feet)	Length Not Along Roads (feet)	Oil/Gas Wells/Tanks in ROW (count)	Number of Pipeline Crossings (count)	Length Through Previously Mined Area (feet)	Transmission Line Crossings (count)	Stream Crossings (count)	Waterbodies in ROW (acres)	Wetlands in ROW (acres)	Gray Bat Critical Habitat in ROW (acres)	Woodland within Gray Bat Critical Habitat in ROW (acres)	Eastern Spotted Skunk Critical Habitat in ROW (acres)	Broadhead Skink State Critical Habitat in ROW (acres)
64	1,2,9,12,13,17,20,24,27,30,31,36,37,38A,38B,48,38D,38E,42,44	510,750	96.7	16	12	102	379,590	490,670	3	10	59,570	10	167	13.8	44.4	0.0	0.0	65.7	79.7
65	1,2,9,12,13,17,20,24,27,30,31,36,37,38A,45,46,38E,42,44	497,980	94.3	17	12	100	366,820	487,680	3	10	53,860	10	168	13.8	39.2	71.6	3.4	65.7	75.6
66	1,2,9,12,13,17,20,24,27,30,31,36,37,38A,45,47,41B,42,44	500,930	94.9	17	12	102	369,780	490,640	3	10	54,020	12	163	14.6	39.7	141.0	11.6	65.7	83.9
67	1,2,9,12,13,17,20,24,27,30,31,36,37,39,41A,41B,42,44	496,660	94.1	15	12	105	365,510	463,670	3	10	56,110	12	161	16.5	40.4	146.5	21.6	65.7	91.2
68	1,2,9,12,13,17,20,24,27,30,31,40,41A,41B,42,44	488,140	92.5	14	13	100	342,230	465,230	3	12	54,060	12	162	13.3	35.1	201.4	32.8	65.7	89.6
69	1,2,9,12,13,17,20,24,27,30,32,34,36,37,38A,38B,38C,38D,38E,42,44	518,960	98.3	15	12	96	461,190	506,320	1	12	63,500	12	142	13.4	41.9	0.0	0.0	65.7	103.9
70	1,2,9,12,13,17,20,24,27,30,32,34,36,37,38A,38B,48,38D,38E,42,44	526,830	99.8	17	12	99	469,060	506,760	1	12	59,570	12	143	10.8	42.4	0.0	0.0	65.7	103.9
71	1,2,9,12,13,17,20,24,27,30,32,34,36,37,38A,45,46,38E,42,44	514,060	97.4	18	12	97	456,290	503,760	1	12	53,860	12	144	10.7	37.1	71.6	3.4	65.7	99.8
72	1,2,9,12,13,17,20,24,27,30,32,34,36,37,38A,45,47,41B,42,44	517,020	97.9	18	12	99	459,250	506,720	1	12	54,020	14	139	11.6	37.6	141.0	11.6	65.7	108.1
73	1,2,9,12,13,17,20,24,27,30,32,34,36,37,39,41A,41B,42,44	512,750	97.1	16	12	102	454,980	479,760	1	12	56,110	14	137	13.4	38.4	146.5	21.6	65.7	115.4
74	1,2,9,12,13,17,20,24,27,30,32,34,40,41A,41B,42,44	504,220	95.5	17	13	97	431,710	481,320	1	14	54,060	14	138	10.2	33.1	201.4	32.8	65.7	113.8
75	1,2,9,12,13,17,20,24,27,30,32,35,43,44	499,840	94.7	15	13	98	456,800	489,200	1	11	20,220	13	139	8.7	32.2	88.3	25.0	65.7	102.2
76	1,2,9,12,13,17,20,24,28,33,43,44	506,750	96	16	13	100	421,840	496,110	1	11	20,220	13	157	13.1	37.7	88.3	25.0	65.7	113.5
77	1,2,9,12,14,16,21,23,26,27,29,37,38A,38B,38C,38D,38E,42,44	554,190	105	21	10	100	530,700	532,980	1	10	69,380	10	156	15.1	47.1	0.0	0.0	65.7	215.1
78	1,2,9,12,14,16,21,23,26,27,29,37,38A,38B,48,38D,38E,42,44	562,060	106.5	23	10	103	538,570	533,430	1	10	65,450	10	157	12.5	47.7	0.0	0.0	65.7	215.1
79	1,2,9,12,14,16,21,23,26,27,29,37,38A,45,46,38E,42,44	549,290	104	24	10	101	525,800	530,430	1	10	59,730	10	158	12.5	42.4	71.6	3.4	65.7	211.0
80	1,2,9,12,14,16,21,23,26,27,29,37,38A,45,47,41B,42,44	552,250	104.6	24	10	103	528,760	533,390	1	10	59,890	12	153	13.3	42.9	141.0	11.6	65.7	219.3
81	1,2,9,12,14,16,21,23,26,27,29,37,39,41A,41B,42,44	547,980	103.8	22	10	106	524,490	506,420	1	10	61,990	12	151	15.2	43.7	146.5	21.6	65.7	226.6
82	1,2,9,12,14,16,21,23,26,27,30,31,36,37,38A,38B,38C,38D,38E,42,44	519,990	98.5	17	12	100	417,490	506,760	3	10	63,500	10	169	17.8	44.6	0.0	0.0	65.7	83.9
83	1,2,9,12,14,16,21,23,26,27,30,31,36,37,38A,38B,48,38D,38E,42,44	527,860	100	19	12	103	425,360	507,200	3	10	59,570	10	170	15.2	45.2	0.0	0.0	65.7	83.9
84	1,2,9,12,14,16,21,23,26,27,30,31,36,37,38A,45,46,38E,42,44	515,090	97.6	20	12	101	412,590	504,210	3	10	53,860	10	171	15.2	39.9	71.6	3.4	65.7	79.8
85	1,2,9,12,14,16,21,23,26,27,30,31,36,37,38A,45,47,41B,42,44	518,050	98.1	20	12	103	415,550	507,160	3	10	54,020	12	166	16	40.4	141.0	11.6	65.7	88.2
86	1,2,9,12,14,16,21,23,26,27,30,31,36,37,39,41A,41B,42,44	513,770	97.3	18	12	106	411,280	480,200	3	10	56,110	12	164	17.9	41.2	146.5	21.6	65.7	95.4
87	1,2,9,12,14,16,21,23,26,27,30,31,40,41A,41B,42,44	505,250	95.7	17	13	101	388,000	481,760	3	12	54,060	12	165	14.7	35.9	201.4	32.8	65.7	93.9
88	1,2,9,12,14,16,21,23,26,27,30,32,34,36,37,38A,38B,38C,38D,38E,42,44	536,070	101.5	18	12	97	506,960	522,840	1	12	63,500	12	145	14.7	42.6	0.0	0.0	65.7	108.1
89	1,2,9,12,14,16,21,23,26,27,30,32,34,36,37,38A,38B,48,38D,38E,42,44	543,950	103	20	12	100	514,830	523,290	1	12	59,570	12	146	12.1	43.1	0.0	0.0	65.7	108.1
90	1,2,9,12,14,16,21,23,26,27,30,32,34,36,37,38A,45,46,38E,42,44	531,180	100.6	21	12	98	502,060	520,290	1	12	53,860	12	147	12.1	37.9	71.6	3.4	65.7	104.0
91	1,2,9,12,14,16,21,23,26,27,30,32,34,36,37,38A,45,47,41B,42,44	534,130	101.2	21	12	100	505,020	523,250	1	12	54,020	14	142	12.9	38.4	141.0	11.6	65.7	112.4
92	1,2,9,12,14,16,21,23,26,27,30,32,34,36,37,39,41A,41B,42,44	529,860	100.4	19	12	103	500,750	496,290	1	12	56,110	14	140	14.8	39.1	146.5	21.6	65.7	119.6
93	1,2,9,12,14,16,21,23,26,27,30,32,34,40,41A,41B,42,44	521,340	98.7	20	13	98	477,480	497,840	1	14	54,060	14	141	11.6	33.8	201.4	32.8	65.7	118.1
94	1,2,9,12,14,16,21,23,26,27,30,32,35,43,44	516,960	97.9	18	13	99	502,560	505,720	1	11	20,220	13	142	10	33	88.3	25.0	65.7	106.5
95	1,2,9,12,14,16,21,23,26,28,33,43,44	523,870	99.2	17	13	101	467,610	512,630	1	11	20,220	13	160	14.4	38.5	88.3	25.0	65.7	117.7
96	1,2,9,12,14,16,21,24,27,29,37,38A,38B,38C,38D,38E,42,44	551,410	104.4	20	10	100	529,570	530,210	1	10	69,380	10	156	15.1	46.8	0.0	0.0	65.7	213.8
97	1,2,9,12,14,16,21,24,27,29,37,38A,38B,48,38D,38E,42,44	559,290	105.9	22	10	103	537,440	530,650	1	10	65,450	10	157	12.5	47.4	0.0	0.0	65.7	213.8
98	1,2,9,12,14,16,21,24,27,29,37,38A,45,46,38E,42,44	546,520	103.5	23	10	101	524,670	527,650	1	10	59,730	10	158	12.5	42.1	71.6	3.4	65.7	209.7
99	1,2,9,12,14,16,21,24,27,29,37,38A,45,47,41B,42,44	549,470	104.1	23	10	103	527,630	530,610	1	10	59,890	12	153	13.3	42.6	141.0	11.6	65.7	218.0
100	1,2,9,12,14,16,21,24,27,29,37,39,41A,41B,42,44	545,200	103.3	21	10	106	523,350	503,650	1	10	61,990	12	151	15.2	43.3	146.5	21.6	65.7	225.3
101	1,2,9,12,14,16,21,24,27,30,31,36,37,38A,38B,38C,38D,38E,42,44	517,210	98	16	12	100	416,360	503,980	3	10	63,500	10	169	17.8	44.3	0.0	0.0	65.7	82.6
102	1,2,9,12,14,16,21,24,27,30,31,36,37,38A,38B,48,38D,38E,42,44	525,090	99.4	18	12	103	424,230	504,430	3	10	59,570	10	170	15.2	44.9	0.0	0.0	65.7	82.6
103	1,2,9,12,14,16,21,24,27,30,31,36,37,38A,45,46,38E,42,44	512,320	97	19	12	101	411,460	501,430	3	10	53,860	10	171	15.2	39.6	71.6	3.4	65.7	78.6
104	1,2,9,12,14,16,21,24,27,30,31,36,37,38A,45,47,41B,42,44	515,270	97.6	19	12	103	414,420	504,390	3	10	54,020	12	166	16	40.1	141.0	11.6	65.7	86.9
105	1,2,9,12,14,16,21,24,27,30,31,36,37,39,41A,41B,42,44	511,000	96.8	17	12	106	410,140	477,430	3	10	56,110	12	164	17.9	40.9	146.5	21.6	65.7	94.2
106	1,2,9,12,14,16,21,24,27,30,31,40,41A,41B,42,44	502,480	95.2	16	13	101	386,870	478,980	3	12	54,060	12	165	14.7	35.6	201.4	32.8	65.7	92.6
107	1,2,9,12,14,16,21,24,27,30,32,34,36,37,38A,38B,38C,38D,38E,42,44	533,300	101	17	12	97	505,830	520,070	1	12	63,500	12	145	14.7	42.3	0.0	0.0	65.7	106.8
108	1,2,9,12,14,16,21,24,27,30,32,34,36,37,38A,38B,48,38D,38E,42,44	541,170	102.5	19	12	100	513,700	520,510	1	12	59,570	12	146	12.1	42.8	0.0	0.0	65.7	106.8
109	1,2,9,12,14,16,21,24,27,30,32,34,36,37,38A,45,46,38E,42,44	528,400	100.1	20	12	98	500,930	517,520	1	12	53,860	12	147	12.1	37.6	71.6	3.4	65.7	102.8
110	1,2,9,12,14,16,21,24,27,30,32,34,36,37,38A,45,47,41B,42,44	531,360	100.6	20	12	100	503,890	520,470	1	12	54,020	14	142	12.9	38.1	141.0	11.6	65.7	111.1
111	1,2,9,12,14,16,21,24,27,30,32,34,36,37,39,41A,41B,42,44	527,090	99.8	18	12	103	499,620	493,510	1	12	56,110	14	140	14.8	38.8	146.5	21.6	65.7	118.4
112	1,2,9,12,14,16,21,24,27,30,32,34,40,41A,41B,42,44	518,560	98.2	19	13	98	476,340	495,070	1	14	54,060	14	141	11.6	33.5	201.4	32.8	65.7	116.8
113	1,2,9,12,14,16,21,24,27,30,32,35,43,44	514,180	97.4	17	13	99	501,430	502,950	1	11	20,220	13	142	10	32.7	88.3	25.0	65.7	105.2
114	1,2,9,12,14,16,21,24,28,33,43,44	521,090	98.7	18	13	101	466,470	509,860	1	11	20,220	13	160	14.4	38.1	88.3	25.0	65.7	116.4
115	1,2,9,12,14,16,22,33,43,44	497,130	94.2	16	13	103	485,780	485,890	3	11	20,220	11	146	13.6	36.9	88.3	25.0	65	

Appendix A - Route Data for All Routes
 Wolf Creek - Blackberry

Route	Segments	Total Length (ft)	Total Length (mi)	Angles Over 30 Degrees (count)	Highway Crossings (count)	Other Roadway Crossings (count)	Length Not Along Existing Transmission Line (feet)	Length Not Along Roads (feet)	Oil/Gas Wells/Tanks in ROW (count)	Number of Pipeline Crossings (count)	Length Through Previously Mined Area (feet)	Transmission Line Crossings (count)	Stream Crossings (count)	Waterbodies in ROW (acres)	Wetlands in ROW (acres)	Gray Bat Critical Habitat in ROW (acres)	Woodland within Gray Bat Critical Habitat in ROW (acres)	Eastern Spotted Skunk Critical Habitat in ROW (acres)	Broadhead Skink State Critical Habitat in ROW (acres)
127	1,3,4,6,8,19,25,26,27,30,32,34,36,37,38A,38B,38C,38D,38E,42,44	592,280	112.2	17	13	101	475,650	498,240	0	16	63,500	11	182	13.9	47.2	0.0	0.0	200.6	139.2
128	1,3,4,6,8,19,25,26,27,30,32,34,36,37,38A,38B,48,38D,38E,42,44	600,150	113.7	19	13	104	483,520	498,690	0	16	59,570	11	183	11.3	47.8	0.0	0.0	200.6	139.2
129	1,3,4,6,8,19,25,26,27,30,32,34,36,37,38A,45,46,38E,42,44	587,380	111.2	20	13	102	470,750	495,690	0	16	53,860	11	184	11.3	42.5	71.6	3.4	200.6	135.1
130	1,3,4,6,8,19,25,26,27,30,32,34,36,37,38A,45,47,41B,42,44	590,340	111.8	20	13	104	473,710	498,650	0	16	54,020	13	179	12.1	43	141.0	11.6	200.6	143.4
131	1,3,4,6,8,19,25,26,27,30,32,34,36,37,39,41A,41B,42,44	586,070	111	18	13	107	469,440	471,680	0	16	56,110	13	177	14	43.8	146.5	21.6	200.6	150.7
132	1,3,4,6,8,19,25,26,27,30,32,34,40,41A,41B,42,44	577,540	109.4	19	14	102	446,170	473,240	0	18	54,060	13	178	10.8	38.5	201.4	32.8	200.6	149.1
133	1,3,4,6,8,19,25,26,27,30,32,35,43,44	573,160	108.6	17	14	103	471,260	481,120	0	15	20,220	12	179	9.2	37.6	88.3	25.0	200.6	137.5
134	1,3,4,6,8,19,25,26,28,33,43,44	580,070	109.9	16	14	105	436,300	488,030	0	15	20,220	12	197	13.6	43.1	88.3	25.0	200.6	148.7
135	1,3,4,6,9,12,13,17,18,19,25,26,27,29,37,38A,38B,38C,38D,38E,42,44	561,180	106.3	20	10	100	500,610	523,540	1	10	69,380	10	179	14	53.2	0.0	0.0	60.3	246.1
136	1,3,4,6,9,12,13,17,18,19,25,26,27,29,37,38A,38B,48,38D,38E,42,44	569,050	107.8	22	10	103	508,480	523,980	1	10	65,450	10	180	11.4	53.8	0.0	0.0	60.3	246.1
137	1,3,4,6,9,12,13,17,18,19,25,26,27,29,37,38A,45,46,38E,42,44	556,280	105.4	23	10	101	495,710	520,990	1	10	59,730	10	181	11.4	48.5	71.6	3.4	60.3	242.0
138	1,3,4,6,9,12,13,17,18,19,25,26,27,29,37,38A,45,47,41B,42,44	559,240	105.9	23	10	103	498,670	523,940	1	10	59,890	12	176	12.2	49	141.0	11.6	60.3	250.3
139	1,3,4,6,9,12,13,17,18,19,25,26,27,29,37,39,41A,41B,42,44	554,960	105.1	21	10	106	494,400	496,980	1	10	61,990	12	174	14.1	49.7	146.5	21.6	60.3	257.6
140	1,3,4,6,9,12,13,17,18,19,25,26,27,30,31,36,37,38A,38B,38C,38D,38E,42,44	526,980	99.8	16	12	100	387,400	497,320	3	10	63,500	10	192	16.7	50.7	0.0	0.0	60.3	115.0
141	1,3,4,6,9,12,13,17,18,19,25,26,27,30,31,36,37,38A,38B,48,38D,38E,42,44	534,850	101.3	18	12	103	395,270	497,760	3	10	59,570	10	193	14.1	51.3	0.0	0.0	60.3	115.0
142	1,3,4,6,9,12,13,17,18,19,25,26,27,30,31,36,37,38A,45,46,38E,42,44	522,080	98.9	19	12	101	382,500	494,760	3	10	53,860	10	194	14.1	46	71.6	3.4	60.3	110.9
143	1,3,4,6,9,12,13,17,18,19,25,26,27,30,31,36,37,38A,45,47,41B,42,44	525,040	99.4	19	12	103	385,460	497,720	3	10	54,020	12	189	14.9	46.5	141.0	11.6	60.3	119.2
144	1,3,4,6,9,12,13,17,18,19,25,26,27,30,31,36,37,39,41A,41B,42,44	520,760	98.6	17	12	106	381,190	470,760	3	10	56,110	12	187	16.8	47.3	146.5	21.6	60.3	126.5
145	1,3,4,6,9,12,13,17,18,19,25,26,27,30,31,40,41A,41B,42,44	512,240	97	16	13	101	357,910	472,320	3	12	54,060	12	188	13.6	42	201.4	32.8	60.3	124.9
146	1,3,4,6,9,12,13,17,18,19,25,26,27,30,32,34,36,37,38A,38B,38C,38D,38E,42,44	543,060	102.9	17	12	97	476,870	513,400	1	12	63,500	12	168	13.6	48.7	0.0	0.0	60.3	139.2
147	1,3,4,6,9,12,13,17,18,19,25,26,27,30,32,34,36,37,38A,38B,48,38D,38E,42,44	550,940	104.3	19	12	100	484,750	513,850	1	12	59,570	12	169	11	49.2	0.0	0.0	60.3	139.2
148	1,3,4,6,9,12,13,17,18,19,25,26,27,30,32,34,36,37,38A,45,46,38E,42,44	538,170	101.9	20	12	98	471,980	510,850	1	12	53,860	12	170	11	44	71.6	3.4	60.3	135.1
149	1,3,4,6,9,12,13,17,18,19,25,26,27,30,32,34,36,37,38A,45,47,41B,42,44	541,120	102.5	20	12	100	474,930	513,810	1	12	54,020	14	165	11.8	44.5	141.0	11.6	60.3	143.4
150	1,3,4,6,9,12,13,17,18,19,25,26,27,30,32,34,36,37,39,41A,41B,42,44	536,850	101.7	18	12	103	470,660	486,850	1	12	56,110	14	163	13.7	45.2	146.5	21.6	60.3	150.7
151	1,3,4,6,9,12,13,17,18,19,25,26,27,30,32,34,40,41A,41B,42,44	528,330	100.1	19	13	98	447,390	488,400	1	14	54,060	14	164	10.5	39.9	201.4	32.8	60.3	149.1
152	1,3,4,6,9,12,13,17,18,19,25,26,27,30,32,35,43,44	523,950	99.2	17	13	99	472,480	496,280	1	11	20,220	13	165	8.9	39.1	88.3	25.0	60.3	137.5
153	1,3,4,6,9,12,13,17,18,19,25,26,28,33,43,44	530,860	100.5	16	13	101	437,520	503,190	1	11	20,220	13	183	13.3	44.6	88.3	25.0	60.3	148.7
154	1,3,4,6,9,12,13,17,20,23,26,27,29,37,38A,38B,38C,38D,38E,42,44	544,200	103.1	21	10	100	484,170	525,020	1	10	69,380	10	164	14.2	51.8	0.0	0.0	60.3	212.1
155	1,3,4,6,9,12,13,17,20,23,26,27,29,37,38A,38B,48,38D,38E,42,44	552,080	104.6	23	10	103	492,040	525,470	1	10	65,450	10	165	11.6	52.3	0.0	0.0	60.3	212.1
156	1,3,4,6,9,12,13,17,20,23,26,27,29,37,38A,45,46,38E,42,44	539,310	102.1	24	10	101	479,270	522,470	1	10	59,730	10	166	11.6	47.1	71.6	3.4	60.3	208.0
157	1,3,4,6,9,12,13,17,20,23,26,27,29,37,38A,45,47,41B,42,44	542,260	102.7	24	10	103	482,230	525,430	1	10	59,890	12	161	12.4	47.6	141.0	11.6	60.3	216.3
158	1,3,4,6,9,12,13,17,20,23,26,27,29,37,39,41A,41B,42,44	537,990	101.9	22	10	106	477,950	498,470	1	10	61,990	12	159	14.3	48.3	146.5	21.6	60.3	223.6
159	1,3,4,6,9,12,13,17,20,23,26,27,30,31,36,37,38A,38B,38C,38D,38E,42,44	510,000	96.6	17	12	100	370,960	498,800	3	10	63,500	10	177	16.9	49.3	0.0	0.0	60.3	81.0
160	1,3,4,6,9,12,13,17,20,23,26,27,30,31,36,37,38A,38B,48,38D,38E,42,44	517,870	98.1	19	12	103	378,830	499,250	3	10	59,570	10	178	14.3	49.9	0.0	0.0	60.3	81.0
161	1,3,4,6,9,12,13,17,20,23,26,27,30,31,36,37,38A,45,46,38E,42,44	505,100	95.7	20	12	101	366,060	496,250	3	10	53,860	10	179	14.3	44.6	71.6	3.4	60.3	76.9
162	1,3,4,6,9,12,13,17,20,23,26,27,30,31,36,37,38A,45,47,41B,42,44	508,060	96.2	20	12	103	369,020	499,210	3	10	54,020	12	174	15.1	45.1	141.0	11.6	60.3	85.2
163	1,3,4,6,9,12,13,17,20,23,26,27,30,31,36,37,39,41A,41B,42,44	503,790	95.4	18	12	106	364,740	472,240	3	10	56,110	12	172	17	45.9	146.5	21.6	60.3	92.5
164	1,3,4,6,9,12,13,17,20,23,26,27,30,31,40,41A,41B,42,44	495,260	93.8	17	13	101	341,470	473,800	3	12	54,060	12	173	13.8	40.6	201.4	32.8	60.3	90.9
165	1,3,4,6,9,12,13,17,20,23,26,27,30,32,34,36,37,38A,38B,38C,38D,38E,42,44	526,090	99.6	18	12	97	460,430	514,890	1	12	63,500	12	153	13.8	47.3	0.0	0.0	60.3	105.2
166	1,3,4,6,9,12,13,17,20,23,26,27,30,32,34,36,37,38A,38B,48,38D,38E,42,44	533,960	101.1	20	12	100	468,300	515,330	1	12	59,570	12	154	11.2	47.8	0.0	0.0	60.3	105.2
167	1,3,4,6,9,12,13,17,20,23,26,27,30,32,34,36,37,38A,45,46,38E,42,44	521,190	98.7	21	12	98	455,530	512,330	1	12	53,860	12	155	11.2	42.5	71.6	3.4	60.3	101.1
168	1,3,4,6,9,12,13,17,20,23,26,27,30,32,34,36,37,38A,45,47,41B,42,44	524,150	99.3	21	12	100	458,490	515,290	1	12	54,020	14	150	12	43.1	141.0	11.6	60.3	109.4
169	1,3,4,6,9,12,13,17,20,23,26,27,30,32,34,36,37,39,41A,41B,42,44	519,880	98.5	19	12	103	454,220	488,330	1	12	56,110	14	148	13.9	43.8	146.5	21.6	60.3	116.7
170	1,3,4,6,9,12,13,17,20,23,26,27,30,32,34,40,41A,41B,42,44	511,350	96.8	20	13	98	430,940	489,890	1	14	54,060	14	149	10.7	38.5	201.4	32.8	60.3	115.1
171	1,3,4,6,9,12,13,17,20,23,26,27,30,32,35,43,44	506,970	96	18	13	99	456,030	497,770	1	11	20,220	13	150	9.1	37.7	88.3	25.0	60.3	103.5
172	1,3,4,6,9,12,13,17,20,23,26,28,33,43,44	513,880	97.3	17	13	101	421,080	504,680	1	11	20,220	13	168	13.5	43.1	88.3	25.0	60.3	114.7
173	1,3,4,6,9,12,13,17,20,24,27,29,37,38A,38B,38C,38D,38E,42,44	541,430	102.5	18	10	100	483,040	522,250	1	10	69,380	10	164	14.2	51.5	0.0	0.0	60.3	210.8
174	1,3,4,6,9,12,13,17,20,24,27,29,37,38A,38B,48,38D,38E,42,44	549,300	104	20	10	103	490,910	522,690	1	10	65,450	10	165	11.6	52	0.0	0.0	60.3	210.8
175	1,3,4,6,9,12,13,17,20,24,27,29,37,38A,45,46,38E,42,44	536,530	101.6	21	10	101	478,140	519,700	1	10	59,730	10	166	11.6	46.8	71.6	3.4	60.3	206.7
176	1,3,4,6,9,12,13,17,20,24,27,29,37,38A,45,47,41B,42,44	539,490	102.2	21	10	103	481,100	522,650	1	10	59,890	12	161	12.4	47.3	141.0	11.6	60.3	215.0
177	1,3,4,6,9,12,13,17,20,24,27,29,37,39,41A,41B,42,44	535,220	101.4	19	10	106													

Appendix A - Route Data for All Routes
 Wolf Creek - Blackberry

Route	Segments	Total Length (ft)	Total Length (mi)	Angles Over 30 Degrees (count)	Highway Crossings (count)	Other Roadway Crossings (count)	Length Not Along Existing Transmission Line (feet)	Length Not Along Roads (feet)	Oil/Gas Wells/Tanks in ROW (count)	Number of Pipeline Crossings (count)	Length Through Previously Mined Area (feet)	Transmission Line Crossings (count)	Stream Crossings (count)	Waterbodies in ROW (acres)	Wetlands in ROW (acres)	Gray Bat Critical Habitat in ROW (acres)	Woodland within Gray Bat Critical Habitat in ROW (acres)	Eastern Spotted Skunk Critical Habitat in ROW (acres)	Broadhead Skink State Critical Habitat in ROW (acres)
190	1,3,4,6,9,12,13,17,20,24,27,30,32,35,43,44	504,200	95.5	15	13	99	454,900	494,990	1	11	20,220	13	150	9.1	37.4	88.3	25.0	60.3	102.2
191	1,3,4,6,9,12,13,17,20,24,28,33,43,44	511,110	96.8	16	13	101	419,940	501,900	1	11	20,220	13	168	13.5	42.8	88.3	25.0	60.3	113.5
192	1,3,4,6,9,12,14,16,21,23,26,27,29,37,38A,38B,38C,38D,38E,42,44	558,540	105.8	21	10	101	528,800	538,780	1	10	69,380	10	167	15.6	52.3	0.0	0.0	60.3	215.1
193	1,3,4,6,9,12,14,16,21,23,26,27,29,37,38A,38B,48,38D,38E,42,44	566,410	107.3	23	10	104	536,680	539,220	1	10	65,450	10	168	13	52.8	0.0	0.0	60.3	215.1
194	1,3,4,6,9,12,14,16,21,23,26,27,29,37,38A,45,46,38E,42,44	553,640	104.9	24	10	102	523,910	536,220	1	10	59,730	10	169	13	47.5	71.6	3.4	60.3	211.0
195	1,3,4,6,9,12,14,16,21,23,26,27,29,37,38A,45,47,41B,42,44	556,600	105.4	24	10	104	526,860	539,180	1	10	59,890	12	164	13.8	48	141.0	11.6	60.3	219.3
196	1,3,4,6,9,12,14,16,21,23,26,27,29,37,39,41A,41B,42,44	552,330	104.6	22	10	107	522,590	512,220	1	10	61,990	12	162	15.7	48.8	146.5	21.6	60.3	226.6
197	1,3,4,6,9,12,14,16,21,23,26,27,30,31,36,37,38A,38B,38C,38D,38E,42,44	524,340	99.3	17	12	101	415,590	512,550	3	10	63,500	10	180	18.3	49.8	0.0	0.0	60.3	83.9
198	1,3,4,6,9,12,14,16,21,23,26,27,30,31,36,37,38A,38B,48,38D,38E,42,44	532,210	100.8	19	12	104	423,470	513,000	3	10	59,570	10	181	15.7	50.3	0.0	0.0	60.3	83.9
199	1,3,4,6,9,12,14,16,21,23,26,27,30,31,36,37,38A,45,46,38E,42,44	519,440	98.4	20	12	102	410,700	510,000	3	10	53,860	10	182	15.6	45	71.6	3.4	60.3	79.8
200	1,3,4,6,9,12,14,16,21,23,26,27,30,31,36,37,38A,45,47,41B,42,44	522,400	98.9	20	12	104	413,650	512,960	3	10	54,020	12	177	16.5	45.6	141.0	11.6	60.3	88.2
201	1,3,4,6,9,12,14,16,21,23,26,27,30,31,36,37,39,41A,41B,42,44	518,130	98.1	18	12	107	409,380	486,000	3	10	56,110	12	175	18.3	46.3	146.5	21.6	60.3	95.4
202	1,3,4,6,9,12,14,16,21,23,26,27,30,31,40,41A,41B,42,44	509,600	96.5	17	13	102	386,110	487,550	3	12	54,060	12	176	15.1	41	201.4	32.8	60.3	93.9
203	1,3,4,6,9,12,14,16,21,23,26,27,30,32,34,36,37,38A,38B,38C,38D,38E,42,44	540,430	102.4	18	12	98	505,070	528,640	1	12	63,500	12	156	15.2	47.7	0.0	0.0	60.3	108.1
204	1,3,4,6,9,12,14,16,21,23,26,27,30,32,34,36,37,38A,38B,48,38D,38E,42,44	548,300	103.8	20	12	101	512,940	529,080	1	12	59,570	12	157	12.6	48.3	0.0	0.0	60.3	108.1
205	1,3,4,6,9,12,14,16,21,23,26,27,30,32,34,36,37,38A,45,46,38E,42,44	535,530	101.4	21	12	99	500,170	526,090	1	12	53,860	12	158	12.6	43	71.6	3.4	60.3	104.0
206	1,3,4,6,9,12,14,16,21,23,26,27,30,32,34,36,37,38A,45,47,41B,42,44	538,490	102	21	12	101	503,130	529,050	1	12	54,020	14	153	13.4	43.5	141.0	11.6	60.3	112.4
207	1,3,4,6,9,12,14,16,21,23,26,27,30,32,34,36,37,39,41A,41B,42,44	534,220	101.2	19	12	104	498,860	502,080	1	12	56,110	14	151	15.3	44.3	146.5	21.6	60.3	119.6
208	1,3,4,6,9,12,14,16,21,23,26,27,30,32,34,40,41A,41B,42,44	525,690	99.6	20	13	99	475,580	503,640	1	14	54,060	14	152	12.1	39	201.4	32.8	60.3	118.1
209	1,3,4,6,9,12,14,16,21,23,26,27,30,32,35,43,44	521,310	98.7	18	13	100	500,670	511,520	1	11	20,220	13	153	10.5	38.1	88.3	25.0	60.3	106.5
210	1,3,4,6,9,12,14,16,21,23,26,28,33,43,44	528,220	100	17	13	102	465,710	518,430	1	11	20,220	13	171	14.9	43.6	88.3	25.0	60.3	117.7
211	1,3,4,6,9,12,14,16,21,24,27,29,37,38A,38B,38C,38D,38E,42,44	555,770	105.3	20	10	101	527,670	536,000	1	10	69,380	10	167	15.6	51.9	0.0	0.0	60.3	213.8
212	1,3,4,6,9,12,14,16,21,24,27,29,37,38A,38B,48,38D,38E,42,44	563,640	106.8	22	10	104	535,550	536,450	1	10	65,450	10	168	13	52.5	0.0	0.0	60.3	213.8
213	1,3,4,6,9,12,14,16,21,24,27,29,37,38A,45,46,38E,42,44	550,870	104.3	23	10	102	522,780	533,450	1	10	59,730	10	169	13	47.2	71.6	3.4	60.3	209.7
214	1,3,4,6,9,12,14,16,21,24,27,29,37,38A,45,47,41B,42,44	553,830	104.9	23	10	104	525,730	536,410	1	10	59,890	12	164	13.8	47.7	141.0	11.6	60.3	218.0
215	1,3,4,6,9,12,14,16,21,24,27,29,37,39,41A,41B,42,44	549,560	104.1	21	10	107	521,460	509,450	1	10	61,990	12	162	15.7	48.5	146.5	21.6	60.3	225.3
216	1,3,4,6,9,12,14,16,21,24,27,30,31,36,37,38A,38B,38C,38D,38E,42,44	521,570	98.8	16	12	101	414,460	509,780	3	10	63,500	10	180	18.3	49.5	0.0	0.0	60.3	82.6
217	1,3,4,6,9,12,14,16,21,24,27,30,31,36,37,38A,38B,48,38D,38E,42,44	529,440	100.3	18	12	104	422,340	510,220	3	10	59,570	10	181	15.7	50	0.0	0.0	60.3	82.6
218	1,3,4,6,9,12,14,16,21,24,27,30,31,36,37,38A,45,46,38E,42,44	516,670	97.9	19	12	102	409,570	507,230	3	10	53,860	10	182	15.6	44.7	71.6	3.4	60.3	78.6
219	1,3,4,6,9,12,14,16,21,24,27,30,31,36,37,38A,45,47,41B,42,44	519,630	98.4	19	12	104	412,520	510,180	3	10	54,020	12	177	16.5	45.3	141.0	11.6	60.3	86.9
220	1,3,4,6,9,12,14,16,21,24,27,30,31,36,37,39,41A,41B,42,44	515,350	97.6	17	12	107	408,250	483,220	3	10	56,110	12	175	18.3	46	146.5	21.6	60.3	94.2
221	1,3,4,6,9,12,14,16,21,24,27,30,31,40,41A,41B,42,44	506,830	96	16	13	102	384,980	484,780	3	12	54,060	12	176	15.1	40.7	201.4	32.8	60.3	92.6
222	1,3,4,6,9,12,14,16,21,24,27,30,32,34,36,37,38A,38B,38C,38D,38E,42,44	537,650	101.8	17	12	98	503,940	525,870	1	12	63,500	12	156	15.2	47.4	0.0	0.0	60.3	106.8
223	1,3,4,6,9,12,14,16,21,24,27,30,32,34,36,37,38A,38B,48,38D,38E,42,44	545,530	103.3	19	12	101	511,810	526,310	1	12	59,570	12	157	12.6	48	0.0	0.0	60.3	106.8
224	1,3,4,6,9,12,14,16,21,24,27,30,32,34,36,37,38A,45,46,38E,42,44	532,760	100.9	20	12	99	499,040	523,310	1	12	53,860	12	158	12.6	42.7	71.6	3.4	60.3	102.8
225	1,3,4,6,9,12,14,16,21,24,27,30,32,34,36,37,38A,45,47,41B,42,44	535,710	101.5	20	12	101	502,000	526,270	1	12	54,020	14	153	13.4	43.2	141.0	11.6	60.3	111.1
226	1,3,4,6,9,12,14,16,21,24,27,30,32,34,36,37,39,41A,41B,42,44	531,440	100.7	18	12	104	497,720	499,310	1	12	56,110	14	151	15.3	43.9	146.5	21.6	60.3	118.4
227	1,3,4,6,9,12,14,16,21,24,27,30,32,34,40,41A,41B,42,44	522,920	99	19	13	99	474,450	500,860	1	14	54,060	14	152	12.1	38.7	201.4	32.8	60.3	116.8
228	1,3,4,6,9,12,14,16,21,24,27,30,32,35,43,44	518,540	98.2	17	13	100	499,540	508,750	1	11	20,220	13	153	10.5	37.8	88.3	25.0	60.3	105.2
229	1,3,4,6,9,12,14,16,21,24,28,33,43,44	525,450	99.5	18	13	102	464,580	515,650	1	11	20,220	13	171	14.9	43.3	88.3	25.0	60.3	116.4
230	1,3,4,6,9,12,14,16,22,33,43,44	501,480	95	16	13	104	483,890	491,690	3	11	20,220	10	157	14	42	88.3	25.0	60.3	105.4
231	1,3,4,7,10,12,13,17,18,19,25,26,27,29,37,38A,38B,38C,38D,38E,42,44	553,970	104.9	18	10	102	493,400	522,070	0	10	69,380	10	172	15.6	54.9	0.0	0.0	28.6	246.1
232	1,3,4,7,10,12,13,17,18,19,25,26,27,29,37,38A,38B,48,38D,38E,42,44	561,840	106.4	20	10	105	501,270	522,520	0	10	65,450	10	173	13	55.4	0.0	0.0	28.6	246.1
233	1,3,4,7,10,12,13,17,18,19,25,26,27,29,37,38A,45,46,38E,42,44	549,070	104	21	10	103	488,500	519,520	0	10	59,730	10	174	13	50.1	71.6	3.4	28.6	242.0
234	1,3,4,7,10,12,13,17,18,19,25,26,27,29,37,38A,45,47,41B,42,44	552,030	104.6	21	10	105	491,460	522,480	0	10	59,890	12	169	13.8	50.7	141.0	11.6	28.6	250.3
235	1,3,4,7,10,12,13,17,18,19,25,26,27,29,37,39,41A,41B,42,44	547,760	103.7	19	10	108	487,190	495,510	0	10	61,990	12	167	15.7	51.4	146.5	21.6	28.6	257.6
236	1,3,4,7,10,12,13,17,18,19,25,26,27,30,31,36,37,38A,38B,38C,38D,38E,42,44	519,770	98.4	14	12	102	380,190	495,850	2	10	63,500	10	185	18.3	52.4	0.0	0.0	28.6	115.0
237	1,3,4,7,10,12,13,17,18,19,25,26,27,30,31,36,37,38A,38B,48,38D,38E,42,44	527,640	99.9	16	12	105	388,060	496,290	2	10	59,570	10	186	15.7	52.9	0.0	0.0	28.6	115.0
238	1,3,4,7,10,12,13,17,18,19,25,26,27,30,31,36,37,38A,45,46,38E,42,44	514,870	97.5	17	12	103	375,290	493,300	2	10	53,860	10	187	15.7	47.7	71.6	3.4	28.6	110.9
239	1,3,4,7,10,12,13,17,18,19,25,26,27,30,31,36,37,38A,45,47,41B,42,44	517,830	98.1	17	12	105	378,250	496,250	2	10	54,020	12	182	16.5	48.2	141.0	11.6	28.6	119.2
240	1,3,4,7,10,12,13,17,18,19,25,26,27,30,31,36,37,39,41A,41B,42,44	513,560	97.3	15	12	108	373,980	469,290	2	10	56,110	12	18						

Appendix A - Route Data for All Routes
 PUBLIC
 Wolf Creek - Blackberry

Route	Segments	Total Length (ft)	Total Length (mi)	Angles Over 30 Degrees (count)	Highway Crossings (count)	Other Roadway Crossings (count)	Length Not Along Existing Transmission Line (feet)	Length Not Along Roads (feet)	Oil/Gas Wells/Tanks in ROW (count)	Number of Pipeline Crossings (count)	Length Through Previously Mined Area (feet)	Transmission Line Crossings (count)	Stream Crossings (count)	Waterbodies in ROW (acres)	Wetlands in ROW (acres)	Gray Bat Critical Habitat in ROW (acres)	Woodland within Gray Bat Critical Habitat in ROW (acres)	Eastern Spotted Skunk Critical Habitat in ROW (acres)	Broadhead Skink State Critical Habitat in ROW (acres)
253	1,3,4,7,10,12,13,17,20,23,26,27,29,37,38A,45,47,41B,42,44	535,050	101.3	22	10	105	475,020	523,960	0	10	59,890	12	154	14.1	49.2	141.0	11.6	28.6	216.3
254	1,3,4,7,10,12,13,17,20,23,26,27,29,37,39,41A,41B,42,44	530,780	100.5	20	10	108	470,750	497,000	0	10	61,990	12	152	15.9	50	146.5	21.6	28.6	223.6
255	1,3,4,7,10,12,13,17,20,23,26,27,30,31,36,37,38A,38B,38C,38D,38E,42,44	502,790	95.2	15	12	102	363,750	497,330	2	10	63,500	10	170	18.5	51	0.0	0.0	28.6	81.0
256	1,3,4,7,10,12,13,17,20,23,26,27,30,31,36,37,38A,38B,48,38D,38E,42,44	510,670	96.7	17	12	105	371,620	497,780	2	10	59,570	10	171	15.9	51.5	0.0	0.0	28.6	81.0
257	1,3,4,7,10,12,13,17,20,23,26,27,30,31,36,37,38A,45,46,38E,42,44	497,900	94.3	18	12	103	358,850	494,780	2	10	53,860	10	172	15.9	46.2	71.6	3.4	28.6	76.9
258	1,3,4,7,10,12,13,17,20,23,26,27,30,31,36,37,38A,45,47,41B,42,44	500,850	94.9	18	12	105	361,810	497,740	2	10	54,020	12	167	16.7	46.8	141.0	11.6	28.6	85.2
259	1,3,4,7,10,12,13,17,20,23,26,27,30,31,36,37,39,41A,41B,42,44	496,580	94	16	12	108	357,540	470,770	2	10	56,110	12	165	18.6	47.5	146.5	21.6	28.6	92.5
260	1,3,4,7,10,12,13,17,20,23,26,27,30,31,40,41A,41B,42,44	488,060	92.4	15	13	103	334,260	472,330	2	12	54,060	12	166	15.4	42.2	201.4	32.8	28.6	90.9
261	1,3,4,7,10,12,13,17,20,23,26,27,30,32,34,36,37,38A,38B,38C,38D,38E,42,44	518,880	98.3	16	12	99	453,220	513,420	0	12	63,500	12	146	15.5	48.9	0.0	0.0	28.6	105.2
262	1,3,4,7,10,12,13,17,20,23,26,27,30,32,34,36,37,38A,38B,48,38D,38E,42,44	526,750	99.8	18	12	102	461,100	513,860	0	12	59,570	12	147	12.9	49.5	0.0	0.0	28.6	105.2
263	1,3,4,7,10,12,13,17,20,23,26,27,30,32,34,36,37,38A,45,46,38E,42,44	513,980	97.3	19	12	100	448,320	510,870	0	12	53,860	12	148	12.8	44.2	71.6	3.4	28.6	101.1
264	1,3,4,7,10,12,13,17,20,23,26,27,30,32,34,36,37,38A,45,47,41B,42,44	516,940	97.9	19	12	102	451,280	513,820	0	12	54,020	14	143	13.7	44.7	141.0	11.6	28.6	109.4
265	1,3,4,7,10,12,13,17,20,23,26,27,30,32,34,36,37,39,41A,41B,42,44	512,670	97.1	17	12	105	447,010	486,860	0	12	56,110	14	141	15.6	45.5	146.5	21.6	28.6	116.7
266	1,3,4,7,10,12,13,17,20,23,26,27,30,32,34,40,41A,41B,42,44	504,140	95.5	18	13	100	423,740	488,420	0	14	54,060	14	142	12.4	40.2	201.4	32.8	28.6	115.1
267	1,3,4,7,10,12,13,17,20,23,26,27,30,32,35,43,44	499,770	94.7	16	13	101	448,830	496,300	0	11	20,220	13	143	10.8	39.3	88.3	25.0	28.6	103.5
268	1,3,4,7,10,12,13,17,20,23,26,28,33,43,44	506,670	96	15	13	103	413,870	503,210	0	11	20,220	13	161	15.2	44.8	88.3	25.0	28.6	114.7
269	1,3,4,7,10,12,13,17,20,24,27,29,37,38A,38B,38C,38D,38E,42,44	534,220	101.2	16	10	102	475,830	520,780	0	10	69,380	10	157	15.9	53.2	0.0	0.0	28.6	210.8
270	1,3,4,7,10,12,13,17,20,24,27,29,37,38A,38B,48,38D,38E,42,44	542,090	102.7	18	10	105	483,700	521,220	0	10	65,450	10	158	13.3	53.7	0.0	0.0	28.6	210.8
271	1,3,4,7,10,12,13,17,20,24,27,29,37,38A,45,46,38E,42,44	529,320	100.3	19	10	103	470,930	518,230	0	10	59,730	10	159	13.2	48.4	71.6	3.4	28.6	206.7
272	1,3,4,7,10,12,13,17,20,24,27,29,37,38A,45,47,41B,42,44	532,280	100.8	19	10	105	473,890	521,180	0	10	59,890	12	154	14.1	48.9	141.0	11.6	28.6	215.0
273	1,3,4,7,10,12,13,17,20,24,27,29,37,39,41A,41B,42,44	528,010	100	17	10	108	469,620	494,220	0	10	61,990	12	152	15.9	49.7	146.5	21.6	28.6	222.3
274	1,3,4,7,10,12,13,17,20,24,27,30,31,36,37,38A,38B,38C,38D,38E,42,44	500,020	94.7	12	12	102	362,620	494,560	2	10	63,500	10	170	18.5	50.7	0.0	0.0	28.6	79.7
275	1,3,4,7,10,12,13,17,20,24,27,30,31,36,37,38A,38B,48,38D,38E,42,44	507,890	96.2	14	12	105	370,490	495,000	2	10	59,570	10	171	15.9	51.2	0.0	0.0	28.6	79.7
276	1,3,4,7,10,12,13,17,20,24,27,30,31,36,37,38A,45,46,38E,42,44	495,120	93.8	15	12	103	357,720	492,000	2	10	53,860	10	172	15.9	45.9	71.6	3.4	28.6	75.6
277	1,3,4,7,10,12,13,17,20,24,27,30,31,36,37,38A,45,47,41B,42,44	498,080	94.3	15	12	105	360,680	494,960	2	10	54,020	12	167	16.7	46.5	141.0	11.6	28.6	83.9
278	1,3,4,7,10,12,13,17,20,24,27,30,31,36,37,39,41A,41B,42,44	493,810	93.5	13	12	108	356,410	468,000	2	10	56,110	12	165	18.6	47.2	146.5	21.6	28.6	91.2
279	1,3,4,7,10,12,13,17,20,24,27,30,31,40,41A,41B,42,44	485,280	91.9	12	13	103	333,130	469,560	2	12	54,060	12	166	15.4	41.9	201.4	32.8	28.6	89.6
280	1,3,4,7,10,12,13,17,20,24,27,30,32,34,36,37,38A,38B,38C,38D,38E,42,44	516,110	97.7	13	12	99	452,090	510,640	0	12	63,500	12	146	15.5	48.6	0.0	0.0	28.6	103.9
281	1,3,4,7,10,12,13,17,20,24,27,30,32,34,36,37,38A,38B,48,38D,38E,42,44	523,980	99.2	15	12	102	459,960	511,090	0	12	59,570	12	147	12.9	49.2	0.0	0.0	28.6	103.9
282	1,3,4,7,10,12,13,17,20,24,27,30,32,34,36,37,38A,45,46,38E,42,44	511,210	96.8	16	12	100	447,190	508,090	0	12	53,860	12	148	12.8	43.9	71.6	3.4	28.6	99.8
283	1,3,4,7,10,12,13,17,20,24,27,30,32,34,36,37,38A,45,47,41B,42,44	514,170	97.4	16	12	102	450,150	511,050	0	12	54,020	14	143	13.7	44.4	141.0	11.6	28.6	108.1
284	1,3,4,7,10,12,13,17,20,24,27,30,32,34,36,37,39,41A,41B,42,44	509,890	96.6	14	12	105	445,880	484,090	0	12	56,110	14	141	15.6	45.2	146.5	21.6	28.6	115.4
285	1,3,4,7,10,12,13,17,20,24,27,30,32,34,40,41A,41B,42,44	501,370	95	15	13	100	422,610	485,640	0	14	54,060	14	142	12.4	39.9	201.4	32.8	28.6	113.8
286	1,3,4,7,10,12,13,17,20,24,27,30,32,35,43,44	496,990	94.1	13	13	101	447,700	493,520	0	11	20,220	13	143	10.8	39	88.3	25.0	28.6	102.2
287	1,3,4,7,10,12,13,17,20,24,28,33,43,44	503,900	95.4	14	13	103	412,740	500,430	0	11	20,220	13	161	15.2	44.5	88.3	25.0	28.6	113.5
288	1,3,4,7,10,12,14,16,21,23,26,27,29,37,38A,38B,38C,38D,38E,42,44	551,330	104.4	19	10	103	521,600	537,310	0	10	69,380	10	160	17.2	53.9	0.0	0.0	28.6	215.1
289	1,3,4,7,10,12,14,16,21,23,26,27,29,37,38A,38B,48,38D,38E,42,44	559,210	105.9	21	10	106	529,470	537,750	0	10	65,450	10	161	14.6	54.4	0.0	0.0	28.6	215.1
290	1,3,4,7,10,12,14,16,21,23,26,27,29,37,38A,45,46,38E,42,44	546,440	103.5	22	10	104	516,700	534,750	0	10	59,730	10	162	14.6	49.2	71.6	3.4	28.6	211.0
291	1,3,4,7,10,12,14,16,21,23,26,27,29,37,38A,45,47,41B,42,44	549,390	104.1	22	10	106	519,660	537,710	0	10	59,890	12	157	15.4	49.7	141.0	11.6	28.6	219.3
292	1,3,4,7,10,12,14,16,21,23,26,27,29,37,39,41A,41B,42,44	545,120	103.2	20	10	109	515,380	510,750	0	10	61,990	12	155	17.3	50.4	146.5	21.6	28.6	226.6
293	1,3,4,7,10,12,14,16,21,23,26,27,30,31,36,37,38A,38B,38C,38D,38E,42,44	517,130	97.9	15	12	103	408,390	511,080	2	10	63,500	10	173	19.9	51.4	0.0	0.0	28.6	83.9
294	1,3,4,7,10,12,14,16,21,23,26,27,30,31,36,37,38A,38B,48,38D,38E,42,44	525,010	99.4	17	12	106	416,260	511,530	2	10	59,570	10	174	17.3	52	0.0	0.0	28.6	83.9
295	1,3,4,7,10,12,14,16,21,23,26,27,30,31,36,37,38A,45,46,38E,42,44	512,240	97	18	12	104	403,490	508,530	2	10	53,860	10	175	17.3	46.7	71.6	3.4	28.6	79.8
296	1,3,4,7,10,12,14,16,21,23,26,27,30,31,36,37,38A,45,47,41B,42,44	515,190	97.6	18	12	106	406,450	511,490	2	10	54,020	12	170	18.1	47.2	141.0	11.6	28.6	88.2
297	1,3,4,7,10,12,14,16,21,23,26,27,30,31,36,37,39,41A,41B,42,44	510,920	96.8	16	12	109	402,170	484,530	2	10	56,110	12	168	20	47.9	146.5	21.6	28.6	95.4
298	1,3,4,7,10,12,14,16,21,23,26,27,30,31,40,41A,41B,42,44	502,400	95.2	15	13	104	378,900	486,080	2	12	54,060	12	169	16.8	42.7	201.4	32.8	28.6	93.9
299	1,3,4,7,10,12,14,16,21,23,26,27,30,32,34,36,37,38A,38B,38C,38D,38E,42,44	533,220	101	16	12	100	497,860	527,170	0	12	63,500	12	149	16.8	49.4	0.0	0.0	28.6	108.1
300	1,3,4,7,10,12,14,16,21,23,26,27,30,32,34,36,37,38A,38B,48,38D,38E,42,44	541,090	102.5	18	12	103	505,730	527,620	0	12	59,570	12	150	14.2	49.9	0.0	0.0	28.6	108.1
301	1,3,4,7,10,12,14,16,21,23,26,27,30,32,34,36,37,38A,45,46,38E,42,44	528,320	100.1	19	12	101	492,960	524,620	0	12	53,860	12	151	14.2	44.6	71.6	3.4	28.6	104.0
302	1,3,4,7,10,12,14,16,21,23,26,27,30,32,34,36,37,38A,45,47,41B,42,44	531,280	100.6	19	12	103	495,920	527,580	0	12	54,020	14	146	15	45.2	141.0	11.6	28.6	112.4
303	1,3,4,7,10,12,14,16,21,23,26,27,30,32																		

Appendix A - Route Data for All Routes
 Wolf Creek - Blackberry

Route	Segments	Total Length (ft)	Total Length (mi)	Angles Over 30 Degrees (count)	Highway Crossings (count)	Other Roadway Crossings (count)	Length Not Along Existing Transmission Line (feet)	Length Not Along Roads (feet)	Oil/Gas Wells/Tanks in ROW (count)	Number of Pipeline Crossings (count)	Length Through Previously Mined Area (feet)	Transmission Line Crossings (count)	Stream Crossings (count)	Waterbodies in ROW (acres)	Wetlands in ROW (acres)	Gray Bat Critical Habitat in ROW (acres)	Woodland within Gray Bat Critical Habitat in ROW (acres)	Eastern Spotted Skunk Critical Habitat in ROW (acres)	Broadhead Skink State Critical Habitat in ROW (acres)
316	1,3,4,7,10,12,14,16,21,24,27,30,31,36,37,39,41A,41B,42,44	508,150	96.2	15	12	109	401,040	481,750	2	10	56,110	12	168	20	47.6	146.5	21.6	28.6	94.2
317	1,3,4,7,10,12,14,16,21,24,27,30,31,40,41A,41B,42,44	499,620	94.6	14	13	104	377,770	483,310	2	12	54,060	12	169	16.8	42.3	201.4	32.8	28.6	92.6
318	1,3,4,7,10,12,14,16,21,24,27,30,32,34,36,37,38A,38B,38C,38D,38E,42,44	530,450	100.5	15	12	100	496,730	524,400	0	12	63,500	12	149	16.8	49.1	0.0	0.0	28.6	106.8
319	1,3,4,7,10,12,14,16,21,24,27,30,32,34,36,37,38A,38B,48,38D,38E,42,44	538,320	102	17	12	103	504,600	524,840	0	12	59,570	12	150	14.2	49.6	0.0	0.0	28.6	106.8
320	1,3,4,7,10,12,14,16,21,24,27,30,32,34,36,37,38A,45,46,38E,42,44	525,550	99.5	18	12	101	491,830	521,840	0	12	53,860	12	151	14.2	44.3	71.6	3.4	28.6	102.8
321	1,3,4,7,10,12,14,16,21,24,27,30,32,34,36,37,38A,45,47,41B,42,44	528,510	100.1	18	12	103	494,790	524,800	0	12	54,020	14	146	15	44.9	141.0	11.6	28.6	111.1
322	1,3,4,7,10,12,14,16,21,24,27,30,32,34,36,37,39,41A,41B,42,44	524,230	99.3	16	12	106	490,520	497,840	0	12	56,110	14	144	16.9	45.6	146.5	21.6	28.6	118.4
323	1,3,4,7,10,12,14,16,21,24,27,30,32,34,40,41A,41B,42,44	515,710	97.7	17	13	101	467,240	499,400	0	14	54,060	14	145	13.7	40.3	201.4	32.8	28.6	116.8
324	1,3,4,7,10,12,14,16,21,24,27,30,32,35,43,44	511,330	96.8	15	13	102	492,330	507,280	0	11	20,220	13	146	12.1	39.4	88.3	25.0	28.6	105.2
325	1,3,4,7,10,12,14,16,21,24,28,33,43,44	518,240	98.2	16	13	104	457,370	514,180	0	11	20,220	13	164	16.6	44.9	88.3	25.0	28.6	116.4
326	1,3,4,7,10,12,14,16,22,33,43,44	494,270	93.6	14	13	106	476,680	490,220	2	11	20,220	11	150	15.7	43.7	88.3	25.0	28.6	105.4
327	1,3,4,7,11,15,17,18,19,25,26,27,29,37,38A,38B,38C,38D,38E,42,44	559,390	105.9	20	10	103	498,820	527,490	0	11	69,380	10	171	13.8	52.4	0.0	0.0	26.2	246.1
328	1,3,4,7,11,15,17,18,19,25,26,27,29,37,38A,38B,48,38D,38E,42,44	567,260	107.4	22	10	106	506,700	527,940	0	11	65,450	10	172	11.2	52.9	0.0	0.0	26.2	246.1
329	1,3,4,7,11,15,17,18,19,25,26,27,29,37,38A,45,46,38E,42,44	554,490	105	23	10	104	493,930	524,940	0	11	59,730	10	173	11.2	47.7	71.6	3.4	26.2	242.0
330	1,3,4,7,11,15,17,18,19,25,26,27,29,37,38A,45,47,41B,42,44	557,450	105.6	23	10	106	496,880	527,900	0	11	59,890	12	168	12	48.2	141.0	11.6	26.2	250.3
331	1,3,4,7,11,15,17,18,19,25,26,27,29,37,39,41A,41B,42,44	553,180	104.8	21	10	109	492,610	500,940	0	11	61,990	12	166	13.9	48.9	146.5	21.6	26.2	257.6
332	1,3,4,7,11,15,17,18,19,25,26,27,30,31,36,37,38A,38B,38C,38D,38E,42,44	525,190	99.5	16	12	103	385,610	501,270	2	11	63,500	10	184	16.5	49.9	0.0	0.0	26.2	115.0
333	1,3,4,7,11,15,17,18,19,25,26,27,30,31,36,37,38A,38B,48,38D,38E,42,44	533,060	101	18	12	106	393,490	501,710	2	11	59,570	10	185	13.9	50.5	0.0	0.0	26.2	115.0
334	1,3,4,7,11,15,17,18,19,25,26,27,30,31,36,37,38A,45,46,38E,42,44	520,290	98.5	19	12	104	380,720	498,720	2	11	53,860	10	186	13.9	45.2	71.6	3.4	26.2	110.9
335	1,3,4,7,11,15,17,18,19,25,26,27,30,31,36,37,38A,45,47,41B,42,44	523,250	99.1	19	12	106	383,670	501,670	2	11	54,020	12	181	14.7	45.7	141.0	11.6	26.2	119.2
336	1,3,4,7,11,15,17,18,19,25,26,27,30,31,36,37,39,41A,41B,42,44	518,980	98.3	17	12	109	379,400	474,710	2	11	56,110	12	179	16.6	46.5	146.5	21.6	26.2	126.5
337	1,3,4,7,11,15,17,18,19,25,26,27,30,31,40,41A,41B,42,44	510,450	96.7	16	13	104	356,130	476,270	2	13	54,060	12	180	13.4	41.2	201.4	32.8	26.2	124.9
338	1,3,4,7,11,15,17,18,19,25,26,27,30,32,34,36,37,38A,38B,38C,38D,38E,42,44	541,280	102.5	17	12	100	475,090	517,360	0	13	63,500	12	160	13.5	47.9	0.0	0.0	26.2	139.2
339	1,3,4,7,11,15,17,18,19,25,26,27,30,32,34,36,37,38A,38B,48,38D,38E,42,44	549,150	104	19	12	103	482,960	517,800	0	13	59,570	12	161	10.9	48.4	0.0	0.0	26.2	139.2
340	1,3,4,7,11,15,17,18,19,25,26,27,30,32,34,36,37,38A,45,46,38E,42,44	536,380	101.6	20	12	101	470,190	514,800	0	13	53,860	12	162	10.8	43.1	71.6	3.4	26.2	135.1
341	1,3,4,7,11,15,17,18,19,25,26,27,30,32,34,36,37,38A,45,47,41B,42,44	539,340	102.1	20	12	103	473,150	517,760	0	13	54,020	14	157	11.7	43.7	141.0	11.6	26.2	143.4
342	1,3,4,7,11,15,17,18,19,25,26,27,30,32,34,36,37,39,41A,41B,42,44	535,070	101.3	18	12	106	468,880	490,800	0	13	56,110	14	155	13.5	44.4	146.5	21.6	26.2	150.7
343	1,3,4,7,11,15,17,18,19,25,26,27,30,32,34,40,41A,41B,42,44	526,540	99.7	19	13	101	445,600	492,360	0	15	54,060	14	156	10.3	39.1	201.4	32.8	26.2	149.1
344	1,3,4,7,11,15,17,18,19,25,26,27,30,32,35,43,44	522,160	98.9	17	13	102	470,690	500,240	0	12	20,220	13	157	8.8	38.2	88.3	25.0	26.2	137.5
345	1,3,4,7,11,15,17,18,19,25,26,28,33,43,44	529,070	100.2	16	13	104	435,730	507,140	0	12	20,220	13	175	13.2	43.7	88.3	25.0	26.2	148.7
346	1,3,4,7,11,15,17,20,23,26,27,29,37,38A,38B,38C,38D,38E,42,44	542,420	102.7	21	10	103	482,380	528,980	0	11	69,380	10	156	14.1	51	0.0	0.0	26.2	212.1
347	1,3,4,7,11,15,17,20,23,26,27,29,37,38A,38B,48,38D,38E,42,44	550,290	104.2	23	10	106	490,250	529,420	0	11	65,450	10	157	11.5	51.5	0.0	0.0	26.2	212.1
348	1,3,4,7,11,15,17,20,23,26,27,29,37,38A,45,46,38E,42,44	537,520	101.8	24	10	104	477,480	526,420	0	11	59,730	10	158	11.4	46.2	71.6	3.4	26.2	208.0
349	1,3,4,7,11,15,17,20,23,26,27,29,37,38A,45,47,41B,42,44	540,480	102.4	24	10	106	480,440	529,380	0	11	59,890	12	153	12.3	46.8	141.0	11.6	26.2	216.3
350	1,3,4,7,11,15,17,20,23,26,27,29,37,39,41A,41B,42,44	536,200	101.6	22	10	109	476,170	502,420	0	11	61,990	12	151	14.1	47.5	146.5	21.6	26.2	223.6
351	1,3,4,7,11,15,17,20,23,26,27,30,31,36,37,38A,38B,38C,38D,38E,42,44	508,220	96.3	17	12	103	369,170	502,750	2	11	63,500	10	169	16.7	48.5	0.0	0.0	26.2	81.0
352	1,3,4,7,11,15,17,20,23,26,27,30,31,36,37,38A,38B,48,38D,38E,42,44	516,090	97.7	19	12	106	377,040	503,200	2	11	59,570	10	170	14.1	49	0.0	0.0	26.2	81.0
353	1,3,4,7,11,15,17,20,23,26,27,30,31,36,37,38A,45,46,38E,42,44	503,320	95.3	20	12	104	364,270	500,200	2	11	53,860	10	171	14.1	43.8	71.6	3.4	26.2	76.9
354	1,3,4,7,11,15,17,20,23,26,27,30,31,36,37,38A,45,47,41B,42,44	506,280	95.9	20	12	106	367,230	503,160	2	11	54,020	12	166	14.9	44.3	141.0	11.6	26.2	85.2
355	1,3,4,7,11,15,17,20,23,26,27,30,31,36,37,39,41A,41B,42,44	502,000	95.1	18	12	109	362,960	476,200	2	11	56,110	12	164	16.8	45	146.5	21.6	26.2	92.5
356	1,3,4,7,11,15,17,20,23,26,27,30,31,40,41A,41B,42,44	493,480	93.5	17	13	104	339,690	477,750	2	13	54,060	12	165	13.6	39.7	201.4	32.8	26.2	90.9
357	1,3,4,7,11,15,17,20,23,26,27,30,32,34,36,37,38A,38B,38C,38D,38E,42,44	524,300	99.3	18	12	100	458,640	518,840	0	13	63,500	12	145	13.7	46.5	0.0	0.0	26.2	105.2
358	1,3,4,7,11,15,17,20,23,26,27,30,32,34,36,37,38A,38B,48,38D,38E,42,44	532,180	100.8	20	12	103	466,520	519,280	0	13	59,570	12	146	11.1	47	0.0	0.0	26.2	105.2
359	1,3,4,7,11,15,17,20,23,26,27,30,32,34,36,37,38A,45,46,38E,42,44	519,410	98.4	21	12	101	453,750	516,290	0	13	53,860	12	147	11	41.7	71.6	3.4	26.2	101.1
360	1,3,4,7,11,15,17,20,23,26,27,30,32,34,36,37,38A,45,47,41B,42,44	522,360	98.9	21	12	103	456,700	519,240	0	13	54,020	14	142	11.9	42.3	141.0	11.6	26.2	109.4
361	1,3,4,7,11,15,17,20,23,26,27,30,32,34,36,37,39,41A,41B,42,44	518,090	98.1	19	12	106	452,430	492,280	0	13	56,110	14	140	13.8	43	146.5	21.6	26.2	116.7
362	1,3,4,7,11,15,17,20,23,26,27,30,32,34,40,41A,41B,42,44	509,570	96.5	20	13	101	429,160	493,840	0	15	54,060	14	141	10.6	37.7	201.4	32.8	26.2	115.1
363	1,3,4,7,11,15,17,20,23,26,27,30,32,35,43,44	505,190	95.7	18	13	102	454,250	501,720	0	12	20,220	13	142	9	36.8	88.3	25.0	26.2	103.5
364	1,3,4,7,11,15,17,20,23,26,28,33,43,44	512,100	97	17	13	104	419,290	508,630	0	12	20,220	13	160	13.4	42.3	88.3	25.0	26.2	114.7
365	1,3,4,7,11,15,17,20,24,27,29,37,38A,38B,38C,38D,38E,42,44	539,640	102.2	18	10	103	481,250	526,200	0	11	69,380	10	156	14.1	50.7	0.0	0.0	26.2	210.8
366	1,3,4,7,11,15,17,20,24,27,29,37,38A,38B,48,38D,38E,42,44	547,520	103.7	20	10	106	489,120	526,650	0	11									

Appendix A - Route Data for All Routes
 PUBLIC
 Wolf Creek - Blackberry

Route	Segments	Total Length (ft)	Total Length (mi)	Angles Over 30 Degrees (count)	Highway Crossings (count)	Other Roadway Crossings (count)	Length Not Along Existing Transmission Line (feet)	Length Not Along Roads (feet)	Oil/Gas Wells/Tanks in ROW (count)	Number of Pipeline Crossings (count)	Length Through Previously Mined Area (feet)	Transmission Line Crossings (count)	Stream Crossings (count)	Waterbodies in ROW (acres)	Wetlands in ROW (acres)	Gray Bat Critical Habitat in ROW (acres)	Woodland within Gray Bat Critical Habitat in ROW (acres)	Eastern Spotted Skunk Critical Habitat in ROW (acres)	Broadhead Skink State Critical Habitat in ROW (acres)
379	1,3,4,7,11,15,17,20,24,27,30,32,34,36,37,38A,45,47,41B,42,44	519,590	98.4	18	12	103	455,570	516,470	0	13	54,020	14	142	11.9	42	141.0	11.6	26.2	108.1
380	1,3,4,7,11,15,17,20,24,27,30,32,34,36,37,39,41A,41B,42,44	515,320	97.6	16	12	106	451,300	489,510	0	13	56,110	14	140	13.8	42.7	146.5	21.6	26.2	115.4
381	1,3,4,7,11,15,17,20,24,27,30,32,34,40,41A,41B,42,44	506,790	96	17	13	101	428,030	491,060	0	15	54,060	14	141	10.6	37.4	201.4	32.8	26.2	113.8
382	1,3,4,7,11,15,17,20,24,27,30,32,35,43,44	502,410	95.2	15	13	102	453,120	498,950	0	12	20,220	13	142	9	36.5	88.3	25.0	26.2	102.2
383	1,3,4,7,11,15,17,20,24,28,33,43,44	509,320	96.5	16	13	104	418,160	505,850	0	12	20,220	13	160	13.4	42	88.3	25.0	26.2	113.5
384	1,3,4,7,11,16,21,23,26,27,29,37,38A,38B,38C,38D,38E,42,44	554,500	105	20	10	104	524,760	544,170	0	11	69,380	10	158	15.4	51.2	0.0	0.0	26.2	215.1
385	1,3,4,7,11,16,21,23,26,27,29,37,38A,38B,48,38D,38E,42,44	562,370	106.5	22	10	107	532,630	544,620	0	11	65,450	10	159	12.8	51.8	0.0	0.0	26.2	215.1
386	1,3,4,7,11,16,21,23,26,27,29,37,38A,45,46,38E,42,44	549,600	104.1	23	10	105	519,860	541,620	0	11	59,730	10	160	12.8	46.5	71.6	3.4	26.2	211.0
387	1,3,4,7,11,16,21,23,26,27,29,37,38A,45,47,41B,42,44	552,560	104.7	23	10	107	522,820	544,580	0	11	59,890	12	155	13.6	47	141.0	11.6	26.2	219.3
388	1,3,4,7,11,16,21,23,26,27,29,37,39,41A,41B,42,44	548,290	103.8	21	10	110	518,550	517,620	0	11	61,990	12	153	15.5	47.7	146.5	21.6	26.2	226.6
389	1,3,4,7,11,16,21,23,26,27,30,31,36,37,38A,38B,38C,38D,38E,42,44	520,300	98.5	16	12	104	411,550	517,950	2	11	63,500	10	171	18.1	48.7	0.0	0.0	26.2	83.9
390	1,3,4,7,11,16,21,23,26,27,30,31,36,37,38A,38B,48,38D,38E,42,44	528,170	100	18	12	107	419,420	518,400	2	11	59,570	10	172	15.5	49.3	0.0	0.0	26.2	83.9
391	1,3,4,7,11,16,21,23,26,27,30,31,36,37,38A,45,46,38E,42,44	515,400	97.6	19	12	105	406,650	515,400	2	11	53,860	10	173	15.5	44	71.6	3.4	26.2	79.8
392	1,3,4,7,11,16,21,23,26,27,30,31,36,37,38A,45,47,41B,42,44	518,360	98.2	19	12	107	409,610	518,360	2	11	54,020	12	168	16.3	44.5	141.0	11.6	26.2	88.2
393	1,3,4,7,11,16,21,23,26,27,30,31,36,37,39,41A,41B,42,44	514,080	97.4	17	12	110	405,340	491,400	2	11	56,110	12	166	18.2	45.3	146.5	21.6	26.2	95.4
394	1,3,4,7,11,16,21,23,26,27,30,31,40,41A,41B,42,44	505,560	95.7	16	13	105	382,060	492,950	2	13	54,060	12	167	15	40	201.4	32.8	26.2	93.9
395	1,3,4,7,11,16,21,23,26,27,30,32,34,36,37,38A,38B,38C,38D,38E,42,44	536,380	101.6	17	12	101	501,020	534,040	0	13	63,500	12	147	15	46.7	0.0	0.0	26.2	108.1
396	1,3,4,7,11,16,21,23,26,27,30,32,34,36,37,38A,38B,48,38D,38E,42,44	544,260	103.1	19	12	104	508,900	534,480	0	13	59,570	12	148	12.4	47.2	0.0	0.0	26.2	108.1
397	1,3,4,7,11,16,21,23,26,27,30,32,34,36,37,38A,45,46,38E,42,44	531,490	100.7	20	12	102	496,130	531,490	0	13	53,860	12	149	12.4	42	71.6	3.4	26.2	104.0
398	1,3,4,7,11,16,21,23,26,27,30,32,34,36,37,38A,45,47,41B,42,44	534,440	101.2	20	12	104	499,080	534,440	0	13	54,020	14	144	13.3	42.5	141.0	11.6	26.2	112.4
399	1,3,4,7,11,16,21,23,26,27,30,32,34,36,37,39,41A,41B,42,44	530,170	100.4	18	12	107	494,810	507,480	0	13	56,110	14	142	15.1	43.2	146.5	21.6	26.2	119.6
400	1,3,4,7,11,16,21,23,26,27,30,32,34,40,41A,41B,42,44	521,650	98.8	19	13	102	471,540	509,040	0	15	54,060	14	143	11.9	37.9	201.4	32.8	26.2	118.1
401	1,3,4,7,11,16,21,23,26,27,30,32,35,43,44	517,270	98	17	13	103	496,630	516,920	0	12	20,220	13	144	10.4	37.1	88.3	25.0	26.2	106.5
402	1,3,4,7,11,16,21,23,26,28,33,43,44	524,180	99.3	16	13	105	461,670	523,830	0	12	20,220	13	162	14.8	42.5	88.3	25.0	26.2	117.7
403	1,3,4,7,11,16,21,24,27,29,37,38A,38B,38C,38D,38E,42,44	551,720	104.5	19	10	104	523,630	541,400	0	11	69,380	10	158	15.4	50.9	0.0	0.0	26.2	213.8
404	1,3,4,7,11,16,21,24,27,29,37,38A,38B,48,38D,38E,42,44	559,600	106	21	10	107	531,500	541,850	0	11	65,450	10	159	12.8	51.4	0.0	0.0	26.2	213.8
405	1,3,4,7,11,16,21,24,27,29,37,38A,45,46,38E,42,44	546,830	103.6	22	10	105	518,730	538,850	0	11	59,730	10	160	12.8	46.2	71.6	3.4	26.2	209.7
406	1,3,4,7,11,16,21,24,27,29,37,38A,45,47,41B,42,44	549,780	104.1	22	10	107	521,690	541,810	0	11	59,890	12	155	13.6	46.7	141.0	11.6	26.2	218.0
407	1,3,4,7,11,16,21,24,27,29,37,39,41A,41B,42,44	545,510	103.3	20	10	110	517,420	514,840	0	11	61,990	12	153	15.5	47.4	146.5	21.6	26.2	225.3
408	1,3,4,7,11,16,21,24,27,30,31,36,37,38A,38B,38C,38D,38E,42,44	517,520	98	15	12	104	410,420	515,180	2	11	63,500	10	171	18.1	48.4	0.0	0.0	26.2	82.6
409	1,3,4,7,11,16,21,24,27,30,31,36,37,38A,38B,48,38D,38E,42,44	525,400	99.5	17	12	107	418,290	515,620	2	11	59,570	10	172	15.5	49	0.0	0.0	26.2	82.6
410	1,3,4,7,11,16,21,24,27,30,31,36,37,38A,45,46,38E,42,44	512,630	97.1	18	12	105	405,520	512,630	2	11	53,860	10	173	15.5	43.7	71.6	3.4	26.2	78.6
411	1,3,4,7,11,16,21,24,27,30,31,36,37,38A,45,47,41B,42,44	515,580	97.6	18	12	107	408,480	515,580	2	11	54,020	12	168	16.3	44.2	141.0	11.6	26.2	86.9
412	1,3,4,7,11,16,21,24,27,30,31,36,37,39,41A,41B,42,44	511,310	96.8	16	12	110	404,210	488,620	2	11	56,110	12	166	18.2	45	146.5	21.6	26.2	94.2
413	1,3,4,7,11,16,21,24,27,30,31,40,41A,41B,42,44	502,790	95.2	15	13	105	380,930	490,180	2	13	54,060	12	167	15	39.7	201.4	32.8	26.2	92.6
414	1,3,4,7,11,16,21,24,27,30,32,34,36,37,38A,38B,38C,38D,38E,42,44	533,610	101.1	16	12	101	499,890	531,260	0	13	63,500	12	147	15	46.4	0.0	0.0	26.2	106.8
415	1,3,4,7,11,16,21,24,27,30,32,34,36,37,38A,38B,48,38D,38E,42,44	541,480	102.6	18	12	104	507,760	531,710	0	13	59,570	12	148	12.4	46.9	0.0	0.0	26.2	106.8
416	1,3,4,7,11,16,21,24,27,30,32,34,36,37,38A,45,46,38E,42,44	528,710	100.1	19	12	102	494,990	528,710	0	13	53,860	12	149	12.4	41.6	71.6	3.4	26.2	102.8
417	1,3,4,7,11,16,21,24,27,30,32,34,36,37,38A,45,47,41B,42,44	531,670	100.7	19	12	104	497,950	531,670	0	13	54,020	14	144	13.3	42.2	141.0	11.6	26.2	111.1
418	1,3,4,7,11,16,21,24,27,30,32,34,36,37,39,41A,41B,42,44	527,400	99.9	17	12	107	493,680	504,710	0	13	56,110	14	142	15.1	42.9	146.5	21.6	26.2	118.4
419	1,3,4,7,11,16,21,24,27,30,32,34,40,41A,41B,42,44	518,870	98.3	18	13	102	470,410	506,260	0	15	54,060	14	143	11.9	37.6	201.4	32.8	26.2	116.8
420	1,3,4,7,11,16,21,24,27,30,32,35,43,44	514,490	97.4	16	13	103	495,500	514,140	0	12	20,220	13	144	10.4	36.8	88.3	25.0	26.2	105.2
421	1,3,4,7,11,16,21,24,28,33,43,44	521,400	98.8	17	13	105	460,540	521,050	0	12	20,220	13	162	14.8	42.2	88.3	25.0	26.2	116.4
422	1,3,4,7,11,16,22,33,43,44	497,440	94.2	15	13	107	479,840	497,090	2	12	20,220	11	148	13.9	41	88.3	25.0	26.2	105.4
423	1,3,5,6,8,19,25,26,27,29,37,38A,38B,38C,38D,38E,42,44	623,550	118.1	23	11	103	495,330	519,670	0	14	69,380	10	195	13.4	49.6	0.0	0.0	200.6	246.1
424	1,3,5,6,8,19,25,26,27,29,37,38A,38B,48,38D,38E,42,44	631,420	119.6	25	11	106	503,200	520,110	0	14	65,450	10	196	10.8	50.2	0.0	0.0	200.6	246.1
425	1,3,5,6,8,19,25,26,27,29,37,38A,45,46,38E,42,44	618,650	117.2	26	11	104	490,430	517,120	0	14	59,730	10	197	10.8	44.9	71.6	3.4	200.6	242.0
426	1,3,5,6,8,19,25,26,27,29,37,38A,45,47,41B,42,44	621,610	117.7	26	11	106	493,390	520,070	0	14	59,890	12	192	11.6	45.4	141.0	11.6	200.6	250.3
427	1,3,5,6,8,19,25,26,27,29,37,39,41A,41B,42,44	617,340	116.9	24	11	109	489,110	493,110	0	14	61,990	12	190	13.5	46.1	146.5	21.6	200.6	257.6
428	1,3,5,6,8,19,25,26,27,30,31,36,37,38A,38B,38C,38D,38E,42,44	589,350	111.6	19	13	103	382,110	493,450	2	14	63,500	10	208	16.1	47.1	0.0	0.0	200.6	115.0
429	1,3,5,6,8,19,25,26,27,30,31,36,37,38A,38B,48,38D,38E,42,44	597,220	113.1	21	13	106	389,990	493,890	2	14	59,570	10	209	13.5	47.7	0.0	0.0	200.6	115.0
430	1,3,5,6,8,19,25,26,27,30,31,36,37,38A,45,46,38E,42,44	584,450	110.7	22	13	104	377,220	490,890	2	14	53,860	10	210	13.5	42.4	71.6	3.4	200.6	11

Appendix A - Route Data for All Routes
 Wolf Creek - Blackberry

Route	Segments	Total Length (ft)	Total Length (mi)	Angles Over 30 Degrees (count)	Highway Crossings (count)	Other Roadway Crossings (count)	Length Not Along Existing Transmission Line (feet)	Length Not Along Roads (feet)	Oil/Gas Wells/Tanks in ROW (count)	Number of Pipeline Crossings (count)	Length Through Previously Mined Area (feet)	Transmission Line Crossings (count)	Stream Crossings (count)	Waterbodies in ROW (acres)	Wetlands in ROW (acres)	Gray Bat Critical Habitat in ROW (acres)	Woodland within Gray Bat Critical Habitat in ROW (acres)	Eastern Spotted Skunk Critical Habitat in ROW (acres)	Broadhead Skink State Critical Habitat in ROW (acres)
442	1,3,5,6,9,12,13,17,18,19,25,26,27,29,37,38A,38B,38C,38D,38E,42,44	574,340	108.8	23	10	99	496,550	534,830	1	10	69,380	11	181	13.1	51.1	0.0	0.0	60.3	246.1
443	1,3,5,6,9,12,13,17,18,19,25,26,27,29,37,38A,38B,48,38D,38E,42,44	582,210	110.3	25	10	102	504,420	535,280	1	10	65,450	11	182	10.5	51.6	0.0	0.0	60.3	246.1
444	1,3,5,6,9,12,13,17,18,19,25,26,27,29,37,38A,45,46,38E,42,44	569,440	107.8	26	10	100	491,650	532,280	1	10	59,730	11	183	10.5	46.3	71.6	3.4	60.3	242.0
445	1,3,5,6,9,12,13,17,18,19,25,26,27,29,37,38A,45,47,41B,42,44	572,400	108.4	26	10	102	494,610	535,240	1	10	59,890	13	178	11.4	46.9	141.0	11.6	60.3	250.3
446	1,3,5,6,9,12,13,17,18,19,25,26,27,29,37,39,41A,41B,42,44	568,120	107.6	24	10	105	490,330	508,270	1	10	61,990	13	176	13.2	47.6	146.5	21.6	60.3	257.6
447	1,3,5,6,9,12,13,17,18,19,25,26,27,30,31,36,37,38A,38B,38C,38D,38E,42,44	540,130	102.3	19	12	99	383,340	508,610	3	10	63,500	11	194	15.8	48.6	0.0	0.0	60.3	115.0
448	1,3,5,6,9,12,13,17,18,19,25,26,27,30,31,36,37,38A,38B,48,38D,38E,42,44	548,010	103.8	21	12	102	391,210	509,050	3	10	59,570	11	195	13.2	49.1	0.0	0.0	60.3	115.0
449	1,3,5,6,9,12,13,17,18,19,25,26,27,30,31,36,37,38A,45,46,38E,42,44	535,240	101.4	22	12	100	378,440	506,060	3	10	53,860	11	196	13.2	43.9	71.6	3.4	60.3	110.9
450	1,3,5,6,9,12,13,17,18,19,25,26,27,30,31,36,37,38A,45,47,41B,42,44	538,190	101.9	22	12	102	381,400	509,010	3	10	54,020	13	191	14	44.4	141.0	11.6	60.3	119.2
451	1,3,5,6,9,12,13,17,18,19,25,26,27,30,31,36,37,39,41A,41B,42,44	533,920	101.1	20	12	105	377,120	482,050	3	10	56,110	13	189	15.9	45.1	146.5	21.6	60.3	126.5
452	1,3,5,6,9,12,13,17,18,19,25,26,27,30,31,40,41A,41B,42,44	525,400	99.5	19	13	100	353,850	483,610	3	12	54,060	13	190	12.7	39.8	201.4	32.8	60.3	124.9
453	1,3,5,6,9,12,13,17,18,19,25,26,27,30,32,34,36,37,38A,38B,38C,38D,38E,42,44	556,220	105.3	20	12	96	472,810	524,690	1	12	63,500	13	170	12.8	46.6	0.0	0.0	60.3	139.2
454	1,3,5,6,9,12,13,17,18,19,25,26,27,30,32,34,36,37,38A,38B,48,38D,38E,42,44	564,090	106.8	22	12	99	480,680	525,140	1	12	59,570	13	171	10.2	47.1	0.0	0.0	60.3	139.2
455	1,3,5,6,9,12,13,17,18,19,25,26,27,30,32,34,36,37,38A,45,46,38E,42,44	551,320	104.4	23	12	97	467,910	522,140	1	12	53,860	13	172	10.1	41.8	71.6	3.4	60.3	135.1
456	1,3,5,6,9,12,13,17,18,19,25,26,27,30,32,34,36,37,38A,45,47,41B,42,44	554,280	105	23	12	99	470,870	525,100	1	12	54,020	15	167	11	42.3	141.0	11.6	60.3	143.4
457	1,3,5,6,9,12,13,17,18,19,25,26,27,30,32,34,36,37,39,41A,41B,42,44	550,010	104.2	21	12	102	466,600	498,140	1	12	56,110	15	165	12.8	43.1	146.5	21.6	60.3	150.7
458	1,3,5,6,9,12,13,17,18,19,25,26,27,30,32,34,40,41A,41B,42,44	541,480	102.6	22	13	97	443,320	499,690	1	14	54,060	15	166	9.6	37.8	201.4	32.8	60.3	149.1
459	1,3,5,6,9,12,13,17,18,19,25,26,27,30,32,35,43,44	537,110	101.7	20	13	98	468,410	507,570	1	11	20,220	14	167	8.1	36.9	88.3	25.0	60.3	137.5
460	1,3,5,6,9,12,13,17,18,19,25,26,28,33,43,44	544,010	103	19	13	100	433,450	514,480	1	11	20,220	14	185	12.5	42.4	88.3	25.0	60.3	148.7
461	1,3,5,6,9,12,13,17,20,23,26,27,29,37,38A,38B,38C,38D,38E,42,44	557,360	105.6	24	10	99	480,100	536,320	1	10	69,380	11	166	13.4	49.7	0.0	0.0	60.3	212.1
462	1,3,5,6,9,12,13,17,20,23,26,27,29,37,38A,38B,48,38D,38E,42,44	565,230	107.1	26	10	102	487,980	536,760	1	10	65,450	11	167	10.8	50.2	0.0	0.0	60.3	212.1
463	1,3,5,6,9,12,13,17,20,23,26,27,29,37,38A,45,46,38E,42,44	552,460	104.6	27	10	100	475,210	533,760	1	10	59,730	11	168	10.7	44.9	71.6	3.4	60.3	208.0
464	1,3,5,6,9,12,13,17,20,23,26,27,29,37,38A,45,47,41B,42,44	555,420	105.2	27	10	102	478,160	536,720	1	10	59,890	13	163	11.6	45.5	141.0	11.6	60.3	216.3
465	1,3,5,6,9,12,13,17,20,23,26,27,29,37,39,41A,41B,42,44	551,150	104.4	25	10	105	473,890	509,760	1	10	61,990	13	161	13.4	46.2	146.5	21.6	60.3	223.6
466	1,3,5,6,9,12,13,17,20,23,26,27,30,31,36,37,38A,38B,38C,38D,38E,42,44	523,160	99.1	20	12	99	366,890	510,090	3	10	63,500	11	179	16	47.2	0.0	0.0	60.3	81.0
467	1,3,5,6,9,12,13,17,20,23,26,27,30,31,36,37,38A,38B,48,38D,38E,42,44	531,030	100.6	22	12	102	374,770	510,540	3	10	59,570	11	180	13.4	47.7	0.0	0.0	60.3	81.0
468	1,3,5,6,9,12,13,17,20,23,26,27,30,31,36,37,38A,45,46,38E,42,44	518,260	98.2	23	12	100	362,000	507,540	3	10	53,860	11	181	13.4	42.5	71.6	3.4	60.3	76.9
469	1,3,5,6,9,12,13,17,20,23,26,27,30,31,36,37,38A,45,47,41B,42,44	521,220	98.7	23	12	102	364,950	510,500	3	10	54,020	13	176	14.2	43	141.0	11.6	60.3	85.2
470	1,3,5,6,9,12,13,17,20,23,26,27,30,31,36,37,39,41A,41B,42,44	516,950	97.9	21	12	105	360,680	483,540	3	10	56,110	13	174	16.1	43.7	146.5	21.6	60.3	92.5
471	1,3,5,6,9,12,13,17,20,23,26,27,30,31,40,41A,41B,42,44	508,420	96.3	20	13	100	337,410	485,090	3	12	54,060	13	175	12.9	38.4	201.4	32.8	60.3	90.9
472	1,3,5,6,9,12,13,17,20,23,26,27,30,32,34,36,37,38A,38B,38C,38D,38E,42,44	539,250	102.1	21	12	96	456,370	526,180	1	12	63,500	13	155	13	45.1	0.0	0.0	60.3	105.2
473	1,3,5,6,9,12,13,17,20,23,26,27,30,32,34,36,37,38A,38B,48,38D,38E,42,44	547,120	103.6	23	12	99	464,240	526,620	1	12	59,570	13	156	10.4	45.7	0.0	0.0	60.3	105.2
474	1,3,5,6,9,12,13,17,20,23,26,27,30,32,34,36,37,38A,45,46,38E,42,44	534,350	101.2	24	12	97	451,470	523,630	1	12	53,860	13	157	10.4	40.4	71.6	3.4	60.3	101.1
475	1,3,5,6,9,12,13,17,20,23,26,27,30,32,34,36,37,38A,45,47,41B,42,44	537,310	101.8	24	12	99	454,430	526,580	1	12	54,020	15	152	11.2	40.9	141.0	11.6	60.3	109.4
476	1,3,5,6,9,12,13,17,20,23,26,27,30,32,34,36,37,39,41A,41B,42,44	533,030	101	22	12	102	450,150	499,620	1	12	56,110	15	150	13.1	41.7	146.5	21.6	60.3	116.7
477	1,3,5,6,9,12,13,17,20,23,26,27,30,32,34,40,41A,41B,42,44	524,510	99.3	23	13	97	426,880	501,180	1	14	54,060	15	151	9.9	36.4	201.4	32.8	60.3	115.1
478	1,3,5,6,9,12,13,17,20,23,26,27,30,32,35,43,44	520,130	98.5	21	13	98	451,970	509,060	1	11	20,220	14	152	8.3	35.5	88.3	25.0	60.3	103.5
479	1,3,5,6,9,12,13,17,20,23,26,28,33,43,44	527,040	99.8	20	13	100	417,010	515,970	1	11	20,220	14	170	12.7	41	88.3	25.0	60.3	114.7
480	1,3,5,6,9,12,13,17,20,24,27,29,37,38A,38B,38C,38D,38E,42,44	554,590	105	21	10	99	478,970	533,540	1	10	69,380	11	166	13.4	49.4	0.0	0.0	60.3	210.8
481	1,3,5,6,9,12,13,17,20,24,27,29,37,38A,38B,48,38D,38E,42,44	562,460	106.5	23	10	102	486,840	533,990	1	10	65,450	11	167	10.8	49.9	0.0	0.0	60.3	210.8
482	1,3,5,6,9,12,13,17,20,24,27,29,37,38A,45,46,38E,42,44	549,690	104.1	24	10	100	474,070	530,990	1	10	59,730	11	168	10.7	44.6	71.6	3.4	60.3	206.7
483	1,3,5,6,9,12,13,17,20,24,27,29,37,38A,45,47,41B,42,44	552,650	104.7	24	10	102	477,030	533,950	1	10	59,890	13	163	11.6	45.2	141.0	11.6	60.3	215.0
484	1,3,5,6,9,12,13,17,20,24,27,29,37,39,41A,41B,42,44	548,370	103.9	22	10	105	472,760	506,980	1	10	61,990	13	161	13.4	45.9	146.5	21.6	60.3	222.3
485	1,3,5,6,9,12,13,17,20,24,27,30,31,36,37,38A,38B,38C,38D,38E,42,44	520,390	98.6	17	12	99	365,760	507,320	3	10	63,500	11	179	16	46.9	0.0	0.0	60.3	79.7
486	1,3,5,6,9,12,13,17,20,24,27,30,31,36,37,38A,38B,48,38D,38E,42,44	528,260	100	19	12	102	373,630	507,760	3	10	59,570	11	180	13.4	47.4	0.0	0.0	60.3	79.7
487	1,3,5,6,9,12,13,17,20,24,27,30,31,36,37,38A,45,46,38E,42,44	515,490	97.6	20	12	100	360,860	504,770	3	10	53,860	11	181	13.4	42.1	71.6	3.4	60.3	75.6
488	1,3,5,6,9,12,13,17,20,24,27,30,31,36,37,38A,45,47,41B,42,44	518,450	98.2	20	12	102	363,820	507,720	3	10	54,020	13	176	14.2	42.7	141.0	11.6	60.3	83.9
489	1,3,5,6,9,12,13,17,20,24,27,30,31,36,37,39,41A,41B,42,44	514,170	97.4	18	12	105	359,550	480,760	3	10	56,110	13	174	16.1	43.4	146.5	21.6	60.3	91.2
490	1,3,5,6,9,12,13,17,20,24,27,30,31,40,41A,41B,42,44	505,650	95.8	17	13	100	336,280	482,320	3	12	54,060	13	175	12.9	38.1	201.4	32.8	60.3	89.6
491	1,3,5,6,9,12,13,17,20,24,27,30,32,34,36,37,38A,38B,38C,38D,38E,42,44	536,470	101.6	18	12	96	455,230	523,400	1	12	63,500	13	155	13	44.8	0.0	0.0	60.3	103.9
492	1,3,5,6,9,12,13,17,20,24,27,30,32,34,36,																		

Appendix A - Route Data for All Routes
 Wolf Creek - Blackberry

Route	Segments	Total Length (ft)	Total Length (mi)	Angles Over 30 Degrees (count)	Highway Crossings (count)	Other Roadway Crossings (count)	Length Not Along Existing Transmission Line (feet)	Length Not Along Roads (feet)	Oil/Gas Wells/Tanks in ROW (count)	Number of Pipeline Crossings (count)	Length Through Previously Mined Area (feet)	Transmission Line Crossings (count)	Stream Crossings (count)	Waterbodies in ROW (acres)	Wetlands in ROW (acres)	Gray Bat Critical Habitat in ROW (acres)	Woodland within Gray Bat Critical Habitat in ROW (acres)	Eastern Spotted Skunk Critical Habitat in ROW (acres)	Broadhead Skink State Critical Habitat in ROW (acres)
505	1,3,5,6,9,12,14,16,21,23,26,27,30,31,36,37,38A,38B,48,38D,38E,42,44	545,370	103.3	22	12	103	419,400	524,290	3	10	59,570	11	183	14.8	48.2	0.0	0.0	60.3	83.9
506	1,3,5,6,9,12,14,16,21,23,26,27,30,31,36,37,38A,45,46,38E,42,44	532,600	100.9	23	12	101	406,630	521,290	3	10	53,860	11	184	14.8	42.9	71.6	3.4	60.3	79.8
507	1,3,5,6,9,12,14,16,21,23,26,27,30,31,36,37,38A,45,47,41B,42,44	535,560	101.4	23	12	103	409,590	524,250	3	10	54,020	13	179	15.6	43.4	141.0	11.6	60.3	88.2
508	1,3,5,6,9,12,14,16,21,23,26,27,30,31,36,37,39,41A,41B,42,44	531,290	100.6	21	12	106	405,320	497,290	3	10	56,110	13	177	17.5	44.2	146.5	21.6	60.3	95.4
509	1,3,5,6,9,12,14,16,21,23,26,27,30,31,40,41A,41B,42,44	522,760	99	20	13	101	382,050	498,840	3	12	54,060	13	178	14.3	38.9	201.4	32.8	60.3	93.9
510	1,3,5,6,9,12,14,16,21,23,26,27,30,32,34,36,37,38A,38B,38C,38D,38E,42,44	553,590	104.8	21	12	97	501,000	539,930	1	12	63,500	13	158	14.3	45.6	0.0	0.0	60.3	108.1
511	1,3,5,6,9,12,14,16,21,23,26,27,30,32,34,36,37,38A,38B,48,38D,38E,42,44	561,460	106.3	23	12	100	508,880	540,380	1	12	59,570	13	159	11.7	46.1	0.0	0.0	60.3	108.1
512	1,3,5,6,9,12,14,16,21,23,26,27,30,32,34,36,37,38A,45,46,38E,42,44	548,690	103.9	24	12	98	496,110	537,380	1	12	53,860	13	160	11.7	40.8	71.6	3.4	60.3	104.0
513	1,3,5,6,9,12,14,16,21,23,26,27,30,32,34,36,37,38A,45,47,41B,42,44	551,650	104.5	24	12	100	499,060	540,340	1	12	54,020	15	155	12.5	41.4	141.0	11.6	60.3	112.4
514	1,3,5,6,9,12,14,16,21,23,26,27,30,32,34,36,37,39,41A,41B,42,44	547,370	103.7	22	12	103	494,790	513,370	1	12	56,110	15	153	14.4	42.1	146.5	21.6	60.3	119.6
515	1,3,5,6,9,12,14,16,21,23,26,27,30,32,34,40,41A,41B,42,44	538,850	102.1	23	13	98	471,520	514,930	1	14	54,060	15	154	11.2	36.8	201.4	32.8	60.3	118.1
516	1,3,5,6,9,12,14,16,21,23,26,27,30,32,35,43,44	534,470	101.2	21	13	99	496,610	522,810	1	11	20,220	14	155	9.7	36	88.3	25.0	60.3	106.5
517	1,3,5,6,9,12,14,16,21,23,26,28,33,43,44	541,380	102.5	20	13	101	461,650	529,720	1	11	20,220	14	173	14.1	41.4	88.3	25.0	60.3	117.7
518	1,3,5,6,9,12,14,16,21,24,27,29,37,38A,38B,38C,38D,38E,42,44	568,930	107.8	23	10	100	523,610	547,290	1	10	69,380	11	169	14.7	49.8	0.0	0.0	60.3	213.8
519	1,3,5,6,9,12,14,16,21,24,27,29,37,38A,38B,48,38D,38E,42,44	576,800	109.2	25	10	103	531,480	547,740	1	10	65,450	11	170	12.1	50.3	0.0	0.0	60.3	213.8
520	1,3,5,6,9,12,14,16,21,24,27,29,37,38A,45,46,38E,42,44	564,030	106.8	26	10	101	518,710	544,740	1	10	59,730	11	171	12.1	45.1	71.6	3.4	60.3	209.7
521	1,3,5,6,9,12,14,16,21,24,27,29,37,38A,45,47,41B,42,44	566,990	107.4	26	10	103	521,670	547,700	1	10	59,890	13	166	12.9	45.6	141.0	11.6	60.3	218.0
522	1,3,5,6,9,12,14,16,21,24,27,29,37,39,41A,41B,42,44	562,710	106.6	24	10	106	517,400	520,740	1	10	61,990	13	164	14.8	46.3	146.5	21.6	60.3	225.3
523	1,3,5,6,9,12,14,16,21,24,27,30,31,36,37,38A,38B,38C,38D,38E,42,44	534,720	101.3	19	12	100	410,400	521,070	3	10	63,500	11	182	17.4	47.3	0.0	0.0	60.3	82.6
524	1,3,5,6,9,12,14,16,21,24,27,30,31,36,37,38A,38B,48,38D,38E,42,44	542,600	102.8	21	12	103	418,270	521,520	3	10	59,570	11	183	14.8	47.9	0.0	0.0	60.3	82.6
525	1,3,5,6,9,12,14,16,21,24,27,30,31,36,37,38A,45,46,38E,42,44	529,830	100.3	22	12	101	405,500	518,520	3	10	53,860	11	184	14.8	42.6	71.6	3.4	60.3	78.6
526	1,3,5,6,9,12,14,16,21,24,27,30,31,36,37,38A,45,47,41B,42,44	532,790	100.9	22	12	103	408,460	521,480	3	10	54,020	13	179	15.6	43.1	141.0	11.6	60.3	86.9
527	1,3,5,6,9,12,14,16,21,24,27,30,31,36,37,39,41A,41B,42,44	528,510	100.1	20	12	106	404,190	494,510	3	10	56,110	13	177	17.5	43.9	146.5	21.6	60.3	94.2
528	1,3,5,6,9,12,14,16,21,24,27,30,31,40,41A,41B,42,44	519,990	98.5	19	13	101	380,910	496,070	3	12	54,060	13	178	14.3	38.6	201.4	32.8	60.3	92.6
529	1,3,5,6,9,12,14,16,21,24,27,30,32,34,36,37,38A,38B,38C,38D,38E,42,44	550,810	104.3	20	12	97	499,870	537,160	1	12	63,500	13	158	14.3	45.3	0.0	0.0	60.3	106.8
530	1,3,5,6,9,12,14,16,21,24,27,30,32,34,36,37,38A,38B,48,38D,38E,42,44	558,680	105.8	22	12	100	507,740	537,600	1	12	59,570	13	159	11.7	45.8	0.0	0.0	60.3	106.8
531	1,3,5,6,9,12,14,16,21,24,27,30,32,34,36,37,38A,45,46,38E,42,44	545,910	103.4	23	12	98	494,970	534,600	1	12	53,860	13	160	11.7	40.5	71.6	3.4	60.3	102.8
532	1,3,5,6,9,12,14,16,21,24,27,30,32,34,36,37,38A,45,47,41B,42,44	548,870	104	23	12	100	497,930	537,560	1	12	54,020	15	155	12.5	41.1	141.0	11.6	60.3	111.1
533	1,3,5,6,9,12,14,16,21,24,27,30,32,34,36,37,39,41A,41B,42,44	544,600	103.1	21	12	103	493,660	510,600	1	12	56,110	15	153	14.4	41.8	146.5	21.6	60.3	118.4
534	1,3,5,6,9,12,14,16,21,24,27,30,32,34,40,41A,41B,42,44	536,070	101.5	22	13	98	470,390	512,160	1	14	54,060	15	154	11.2	36.5	201.4	32.8	60.3	116.8
535	1,3,5,6,9,12,14,16,21,24,27,30,32,35,43,44	531,700	100.7	20	13	99	495,480	520,040	1	11	20,220	14	155	9.7	35.6	88.3	25.0	60.3	105.2
536	1,3,5,6,9,12,14,16,21,24,28,33,43,44	538,600	102	21	13	101	460,520	526,950	1	11	20,220	14	173	14.1	41.1	88.3	25.0	60.3	116.4
537	1,3,5,6,9,12,14,16,22,33,43,44	514,640	97.5	19	13	103	479,820	502,980	3	11	20,220	12	159	13.2	39.9	88.3	25.0	60.3	105.4
538	1,3,5,7,10,12,13,17,18,19,25,26,27,29,37,38A,38B,38C,38D,38E,42,44	567,130	107.4	23	10	101	489,340	533,360	0	10	69,380	11	174	14.8	52.7	0.0	0.0	28.6	246.1
539	1,3,5,7,10,12,13,17,18,19,25,26,27,29,37,38A,38B,48,38D,38E,42,44	575,000	108.9	25	10	104	497,210	533,810	0	10	65,450	11	175	12.2	53.3	0.0	0.0	28.6	246.1
540	1,3,5,7,10,12,13,17,18,19,25,26,27,29,37,38A,45,46,38E,42,44	562,230	106.5	26	10	102	484,440	530,810	0	10	59,730	11	176	12.2	48	71.6	3.4	28.6	242.0
541	1,3,5,7,10,12,13,17,18,19,25,26,27,29,37,38A,45,47,41B,42,44	565,190	107	26	10	104	487,400	533,770	0	10	59,890	13	171	13	48.5	141.0	11.6	28.6	250.3
542	1,3,5,7,10,12,13,17,18,19,25,26,27,29,37,39,41A,41B,42,44	560,920	106.2	24	10	107	483,130	506,810	0	10	61,990	13	169	14.9	49.3	146.5	21.6	28.6	257.6
543	1,3,5,7,10,12,13,17,18,19,25,26,27,30,31,36,37,38A,38B,38C,38D,38E,42,44	532,930	100.9	19	12	101	376,130	507,140	2	10	63,500	11	187	17.5	50.3	0.0	0.0	28.6	115.0
544	1,3,5,7,10,12,13,17,18,19,25,26,27,30,31,36,37,38A,38B,48,38D,38E,42,44	540,800	102.4	21	12	104	384,000	507,580	2	10	59,570	11	188	14.9	50.8	0.0	0.0	28.6	115.0
545	1,3,5,7,10,12,13,17,18,19,25,26,27,30,31,36,37,38A,45,46,38E,42,44	528,030	100	22	12	102	371,230	504,590	2	10	53,860	11	189	14.8	45.5	71.6	3.4	28.6	110.9
546	1,3,5,7,10,12,13,17,18,19,25,26,27,30,31,36,37,38A,45,47,41B,42,44	530,990	100.6	22	12	104	374,190	507,540	2	10	54,020	13	184	15.7	46	141.0	11.6	28.6	119.2
547	1,3,5,7,10,12,13,17,18,19,25,26,27,30,31,36,37,39,41A,41B,42,44	526,720	99.8	20	12	107	369,920	480,580	2	10	56,110	13	182	17.6	46.8	146.5	21.6	28.6	126.5
548	1,3,5,7,10,12,13,17,18,19,25,26,27,30,31,40,41A,41B,42,44	518,190	98.1	19	13	102	346,640	482,140	2	12	54,060	13	183	14.3	41.5	201.4	32.8	28.6	124.9
549	1,3,5,7,10,12,13,17,18,19,25,26,27,30,32,34,36,37,38A,38B,38C,38D,38E,42,44	549,010	104	20	12	98	465,600	523,230	0	12	63,500	13	163	14.4	48.2	0.0	0.0	28.6	139.2
550	1,3,5,7,10,12,13,17,18,19,25,26,27,30,32,34,36,37,38A,38B,48,38D,38E,42,44	556,890	105.5	22	12	101	473,470	523,670	0	12	59,570	13	164	11.8	48.7	0.0	0.0	28.6	139.2
551	1,3,5,7,10,12,13,17,18,19,25,26,27,30,32,34,36,37,38A,45,46,38E,42,44	544,120	103.1	23	12	99	460,700	520,670	0	12	53,860	13	165	11.8	43.5	71.6	3.4	28.6	135.1
552	1,3,5,7,10,12,13,17,18,19,25,26,27,30,32,34,36,37,38A,45,47,41B,42,44	547,070	103.6	23	12	101	463,660	523,630	0	12	54,020	15	160	12.6	44	141.0	11.6	28.6	143.4
553	1,3,5,7,10,12,13,17,18,19,25,26,27,30,32,34,36,37,39,41A,41B,42,44	542,800	102.8	21	12	104	459,390	496,670	0	12	56,110	15	158	14.5	44.7	146.5	21.6	28.6	150.7
554	1,3,5,7,10,12,13,17,18,19,25,26,27,30,32,34,40,41A,41B,42,44	534,280	101.2	22	13	99	436,120	498,220	0	14	54,060	15	159	11.3	39.4	201.4	32.8	28.6	149.1
555	1,3,5,7,10,12,13,17,18,19,25,																		

Appendix A - Route Data for All Routes
 PUBLIC
 Wolf Creek - Blackberry

Route	Segments	Total Length (ft)	Total Length (mi)	Angles Over 30 Degrees (count)	Highway Crossings (count)	Other Roadway Crossings (count)	Length Not Along Existing Transmission Line (feet)	Length Not Along Roads (feet)	Oil/Gas Wells/Tanks in ROW (count)	Number of Pipeline Crossings (count)	Length Through Previously Mined Area (feet)	Transmission Line Crossings (count)	Stream Crossings (count)	Waterbodies in ROW (acres)	Wetlands in ROW (acres)	Gray Bat Critical Habitat in ROW (acres)	Woodland within Gray Bat Critical Habitat in ROW (acres)	Eastern Spotted Skunk Critical Habitat in ROW (acres)	Broadhead Skink State Critical Habitat in ROW (acres)
568	1,3,5,7,10,12,13,17,20,23,26,27,30,32,34,36,37,38A,38B,38C,38D,38E,42,44	532,040	100.8	21	12	98	449,160	524,710	0	12	63,500	13	148	14.6	46.8	0.0	0.0	28.6	105.2
569	1,3,5,7,10,12,13,17,20,23,26,27,30,32,34,36,37,38A,38B,48,38D,38E,42,44	539,910	102.3	23	12	101	457,030	525,150	0	12	59,570	13	149	12	47.3	0.0	0.0	28.6	105.2
570	1,3,5,7,10,12,13,17,20,23,26,27,30,32,34,36,37,38A,45,46,38E,42,44	527,140	99.8	24	12	99	444,260	522,160	0	12	53,860	13	150	12	42.1	71.6	3.4	28.6	101.1
571	1,3,5,7,10,12,13,17,20,23,26,27,30,32,34,36,37,38A,45,47,41B,42,44	530,100	100.4	24	12	101	447,220	525,110	0	12	54,020	15	145	12.8	42.6	141.0	11.6	28.6	109.4
572	1,3,5,7,10,12,13,17,20,23,26,27,30,32,34,36,37,39,41A,41B,42,44	525,830	99.6	22	12	104	442,950	498,150	0	12	56,110	15	143	14.7	43.3	146.5	21.6	28.6	116.7
573	1,3,5,7,10,12,13,17,20,23,26,27,30,32,34,40,41A,41B,42,44	517,300	98	23	13	99	419,670	499,710	0	14	54,060	15	144	11.5	38	201.4	32.8	28.6	115.1
574	1,3,5,7,10,12,13,17,20,23,26,27,30,32,35,43,44	512,920	97.1	21	13	100	444,760	507,590	0	11	20,220	14	145	9.9	37.2	88.3	25.0	28.6	103.5
575	1,3,5,7,10,12,13,17,20,23,26,28,33,43,44	519,830	98.5	20	13	102	409,800	514,500	0	11	20,220	14	163	14.3	42.6	88.3	25.0	28.6	114.7
576	1,3,5,7,10,12,13,17,20,24,27,29,37,38A,38B,38C,38D,38E,42,44	547,380	103.7	21	10	101	471,760	532,070	0	10	69,380	11	159	15	51	0.0	0.0	28.6	210.8
577	1,3,5,7,10,12,13,17,20,24,27,29,37,38A,38B,48,38D,38E,42,44	555,250	105.2	23	10	104	479,640	532,520	0	10	65,450	11	160	12.4	51.5	0.0	0.0	28.6	210.8
578	1,3,5,7,10,12,13,17,20,24,27,29,37,38A,45,46,38E,42,44	542,480	102.7	24	10	102	466,870	529,520	0	10	59,730	11	161	12.4	46.3	71.6	3.4	28.6	206.7
579	1,3,5,7,10,12,13,17,20,24,27,29,37,38A,45,47,41B,42,44	545,440	103.3	24	10	104	469,820	532,480	0	10	59,890	13	156	13.2	46.8	141.0	11.6	28.6	215.0
580	1,3,5,7,10,12,13,17,20,24,27,29,37,39,41A,41B,42,44	541,170	102.5	22	10	107	465,550	505,510	0	10	61,990	13	154	15.1	47.5	146.5	21.6	28.6	222.3
581	1,3,5,7,10,12,13,17,20,24,27,30,31,36,37,38A,38B,38C,38D,38E,42,44	513,180	97.2	17	12	101	358,550	505,850	2	10	63,500	11	172	17.7	48.5	0.0	0.0	28.6	79.7
582	1,3,5,7,10,12,13,17,20,24,27,30,31,36,37,38A,38B,48,38D,38E,42,44	521,050	98.7	19	12	104	366,430	506,290	2	10	59,570	11	173	15.1	49.1	0.0	0.0	28.6	79.7
583	1,3,5,7,10,12,13,17,20,24,27,30,31,36,37,38A,45,46,38E,42,44	508,280	96.3	20	12	102	353,660	503,300	2	10	53,860	11	174	15.1	43.8	71.6	3.4	28.6	75.6
584	1,3,5,7,10,12,13,17,20,24,27,30,31,36,37,38A,45,47,41B,42,44	511,240	96.8	20	12	104	356,610	506,250	2	10	54,020	13	169	15.9	44.3	141.0	11.6	28.6	83.9
585	1,3,5,7,10,12,13,17,20,24,27,30,31,36,37,39,41A,41B,42,44	506,970	96	18	12	107	352,340	479,290	2	10	56,110	13	167	17.8	45.1	146.5	21.6	28.6	91.2
586	1,3,5,7,10,12,13,17,20,24,27,30,31,40,41A,41B,42,44	498,440	94.4	17	13	102	329,070	480,850	2	12	54,060	13	168	14.6	39.8	201.4	32.8	28.6	89.6
587	1,3,5,7,10,12,13,17,20,24,27,30,32,34,36,37,38A,38B,38C,38D,38E,42,44	529,260	100.2	18	12	98	448,030	521,930	0	12	63,500	13	148	14.6	46.5	0.0	0.0	28.6	103.9
588	1,3,5,7,10,12,13,17,20,24,27,30,32,34,36,37,38A,38B,48,38D,38E,42,44	537,140	101.7	20	12	101	455,900	522,380	0	12	59,570	13	149	12	47	0.0	0.0	28.6	103.9
589	1,3,5,7,10,12,13,17,20,24,27,30,32,34,36,37,38A,45,46,38E,42,44	524,370	99.3	21	12	99	443,130	519,380	0	12	53,860	13	150	12	41.7	71.6	3.4	28.6	99.8
590	1,3,5,7,10,12,13,17,20,24,27,30,32,34,36,37,38A,45,47,41B,42,44	527,320	99.9	21	12	101	446,090	522,340	0	12	54,020	15	145	12.8	42.3	141.0	11.6	28.6	108.1
591	1,3,5,7,10,12,13,17,20,24,27,30,32,34,36,37,39,41A,41B,42,44	523,050	99.1	19	12	104	441,820	495,380	0	12	56,110	15	143	14.7	43	146.5	21.6	28.6	115.4
592	1,3,5,7,10,12,13,17,20,24,27,30,32,34,40,41A,41B,42,44	514,530	97.4	20	13	99	418,540	496,930	0	14	54,060	15	144	11.5	37.7	201.4	32.8	28.6	113.8
593	1,3,5,7,10,12,13,17,20,24,27,30,32,35,43,44	510,150	96.6	18	13	100	443,630	504,810	0	11	20,220	14	145	9.9	36.9	88.3	25.0	28.6	102.2
594	1,3,5,7,10,12,13,17,20,24,28,33,43,44	517,060	97.9	19	13	102	408,670	511,720	0	11	20,220	14	163	14.3	42.3	88.3	25.0	28.6	113.5
595	1,3,5,7,10,12,14,16,21,23,26,27,29,37,38A,38B,38C,38D,38E,42,44	564,490	106.9	24	10	102	517,530	548,600	0	10	69,380	11	162	16.4	51.8	0.0	0.0	28.6	215.1
596	1,3,5,7,10,12,14,16,21,23,26,27,29,37,38A,38B,48,38D,38E,42,44	572,370	108.4	26	10	105	525,410	549,040	0	10	65,450	11	163	13.8	52.3	0.0	0.0	28.6	215.1
597	1,3,5,7,10,12,14,16,21,23,26,27,29,37,38A,45,46,38E,42,44	559,600	106	27	10	103	512,640	546,050	0	10	59,730	11	164	13.7	47	71.6	3.4	28.6	211.0
598	1,3,5,7,10,12,14,16,21,23,26,27,29,37,38A,45,47,41B,42,44	562,550	106.5	27	10	105	515,590	549,000	0	10	59,890	13	159	14.6	47.5	141.0	11.6	28.6	219.3
599	1,3,5,7,10,12,14,16,21,23,26,27,29,37,39,41A,41B,42,44	558,280	105.7	25	10	108	511,320	522,040	0	10	61,990	13	157	16.5	48.3	146.5	21.6	28.6	226.6
600	1,3,5,7,10,12,14,16,21,23,26,27,30,31,36,37,38A,38B,38C,38D,38E,42,44	530,290	100.4	20	12	102	404,320	522,380	2	10	63,500	11	175	19	49.3	0.0	0.0	28.6	83.9
601	1,3,5,7,10,12,14,16,21,23,26,27,30,31,36,37,38A,38B,48,38D,38E,42,44	538,160	101.9	22	12	105	412,200	522,820	2	10	59,570	11	176	16.4	49.8	0.0	0.0	28.6	83.9
602	1,3,5,7,10,12,14,16,21,23,26,27,30,31,36,37,38A,45,46,38E,42,44	525,390	99.5	23	12	103	399,430	519,820	2	10	53,860	11	177	16.4	44.5	71.6	3.4	28.6	79.8
603	1,3,5,7,10,12,14,16,21,23,26,27,30,31,36,37,38A,45,47,41B,42,44	528,350	100.1	23	12	105	402,380	522,780	2	10	54,020	13	172	17.2	45.1	141.0	11.6	28.6	88.2
604	1,3,5,7,10,12,14,16,21,23,26,27,30,31,36,37,39,41A,41B,42,44	524,080	99.3	21	12	108	398,110	495,820	2	10	56,110	13	170	19.1	45.8	146.5	21.6	28.6	95.4
605	1,3,5,7,10,12,14,16,21,23,26,27,30,31,40,41A,41B,42,44	515,550	97.6	20	13	103	374,840	497,380	2	12	54,060	13	171	15.9	40.5	201.4	32.8	28.6	93.9
606	1,3,5,7,10,12,14,16,21,23,26,27,30,32,34,36,37,38A,38B,38C,38D,38E,42,44	546,380	103.5	21	12	99	493,800	538,460	0	12	63,500	13	151	16	47.2	0.0	0.0	28.6	108.1
607	1,3,5,7,10,12,14,16,21,23,26,27,30,32,34,36,37,38A,38B,48,38D,38E,42,44	554,250	105	23	12	102	501,670	538,910	0	12	59,570	13	152	13.4	47.8	0.0	0.0	28.6	108.1
608	1,3,5,7,10,12,14,16,21,23,26,27,30,32,34,36,37,38A,45,46,38E,42,44	541,480	102.6	24	12	100	488,900	535,910	0	12	53,860	13	153	13.4	42.5	71.6	3.4	28.6	104.0
609	1,3,5,7,10,12,14,16,21,23,26,27,30,32,34,36,37,38A,45,47,41B,42,44	544,440	103.1	24	12	102	491,860	538,870	0	12	54,020	15	148	14.2	43	141.0	11.6	28.6	112.4
610	1,3,5,7,10,12,14,16,21,23,26,27,30,32,34,36,37,39,41A,41B,42,44	540,170	102.3	22	12	105	487,580	511,910	0	12	56,110	15	146	16.1	43.8	146.5	21.6	28.6	119.6
611	1,3,5,7,10,12,14,16,21,23,26,27,30,32,34,40,41A,41B,42,44	531,640	100.7	23	13	100	464,310	513,460	0	14	54,060	15	147	12.9	38.5	201.4	32.8	28.6	118.1
612	1,3,5,7,10,12,14,16,21,23,26,27,30,32,35,43,44	527,260	99.9	21	13	101	489,400	521,340	0	11	20,220	14	148	11.3	37.6	88.3	25.0	28.6	106.5
613	1,3,5,7,10,12,14,16,21,23,26,28,33,43,44	534,170	101.2	20	13	103	454,440	528,250	0	11	20,220	14	166	15.7	43.1	88.3	25.0	28.6	117.7
614	1,3,5,7,10,12,14,16,21,24,27,29,37,38A,38B,38C,38D,38E,42,44	561,720	106.4	23	10	102	516,400	545,820	0	10	69,380	11	162	16.4	51.5	0.0	0.0	28.6	213.8
615	1,3,5,7,10,12,14,16,21,24,27,29,37,38A,38B,48,38D,38E,42,44	569,590	107.9	25	10	105	524,270	546,270	0	10	65,450	11	163	13.8	52	0.0	0.0	28.6	213.8
616	1,3,5,7,10,12,14,16,21,24,27,29,37,38A,45,46,38E,42,44	556,820	105.5	26	10	103	511,500	543,270	0	10	59,730	11	164	13.7	46.7	71.6	3.4	28.6	209.7
617	1,3,5,7,10,12,14,16,21,24,27,29,37,38A,45,47,41B,42,44	559,780	106	26	10	105	514,460	546,230	0	10	59,890	13	159	14.6	47.2	141.0	11.6	28.6	218.0
618	1,3,5,7,10,12,14,16,21,24,27,29,37,39,41A,41B,42,44	555,510	105.2	24	10	108</													

Appendix A - Route Data for All Routes
 Wolf Creek - Blackberry

Route	Segments	Total Length (ft)	Total Length (mi)	Angles Over 30 Degrees (count)	Highway Crossings (count)	Other Roadway Crossings (count)	Length Not Along Existing Transmission Line (feet)	Length Not Along Roads (feet)	Oil/Gas Wells/Tanks in ROW (count)	Number of Pipeline Crossings (count)	Length Through Previously Mined Area (feet)	Transmission Line Crossings (count)	Stream Crossings (count)	Waterbodies in ROW (acres)	Wetlands in ROW (acres)	Gray Bat Critical Habitat in ROW (acres)	Woodland within Gray Bat Critical Habitat in ROW (acres)	Eastern Spotted Skunk Critical Habitat in ROW (acres)	Broadhead Skink State Critical Habitat in ROW (acres)
631	1,3,5,7,10,12,14,16,21,24,27,30,32,35,43,44	524,490	99.3	20	13	101	488,270	518,570	0	11	20,220	14	148	11.3	37.3	88.3	25.0	28.6	105.2
632	1,3,5,7,10,12,14,16,21,24,28,33,43,44	531,400	100.6	21	13	103	453,310	525,480	0	11	20,220	14	166	15.7	42.8	88.3	25.0	28.6	116.4
633	1,3,5,7,10,12,14,16,22,33,43,44	507,430	96.1	19	13	105	472,620	501,510	2	11	20,220	12	152	14.8	41.5	88.3	25.0	28.6	105.4
634	1,3,5,7,11,15,17,18,19,25,26,27,29,37,38A,38B,38C,38D,38E,42,44	572,550	108.4	25	10	102	494,760	538,780	0	11	69,380	11	173	13	50.3	0.0	0.0	26.2	246.1
635	1,3,5,7,11,15,17,18,19,25,26,27,29,37,38A,38B,48,38D,38E,42,44	580,420	109.9	27	10	105	502,630	539,230	0	11	65,450	11	174	10.4	50.8	0.0	0.0	26.2	246.1
636	1,3,5,7,11,15,17,18,19,25,26,27,29,37,38A,45,46,38E,42,44	567,650	107.5	28	10	103	489,860	536,230	0	11	59,730	11	175	10.4	45.5	71.6	3.4	26.2	242.0
637	1,3,5,7,11,15,17,18,19,25,26,27,29,37,38A,45,47,41B,42,44	570,610	108.1	28	10	105	492,820	539,190	0	11	59,890	11	170	11.2	46	141.0	11.6	26.2	250.3
638	1,3,5,7,11,15,17,18,19,25,26,27,29,37,39,41A,41B,42,44	566,340	107.3	26	10	108	488,550	512,230	0	11	61,990	13	168	13.1	46.8	146.5	21.6	26.2	257.6
639	1,3,5,7,11,15,17,18,19,25,26,27,30,31,36,37,38A,38B,38C,38D,38E,42,44	538,350	102	21	12	102	381,550	512,560	2	11	63,500	11	186	15.7	47.8	0.0	0.0	26.2	115.0
640	1,3,5,7,11,15,17,18,19,25,26,27,30,31,36,37,38A,38B,48,38D,38E,42,44	546,220	103.5	23	12	105	389,420	513,010	2	11	59,570	11	187	13.1	48.3	0.0	0.0	26.2	115.0
641	1,3,5,7,11,15,17,18,19,25,26,27,30,31,36,37,38A,45,46,38E,42,44	533,450	101	24	12	103	376,650	510,010	2	11	53,860	11	188	13	43	71.6	3.4	26.2	110.9
642	1,3,5,7,11,15,17,18,19,25,26,27,30,31,36,37,38A,45,47,41B,42,44	536,410	101.6	24	12	105	379,610	512,970	2	11	54,020	11	183	13.9	43.6	141.0	11.6	26.2	119.2
643	1,3,5,7,11,15,17,18,19,25,26,27,30,31,36,37,39,41A,41B,42,44	532,140	100.8	22	12	108	375,340	486,000	2	11	56,110	13	181	15.8	44.3	146.5	21.6	26.2	126.5
644	1,3,5,7,11,15,17,18,19,25,26,27,30,31,40,41A,41B,42,44	523,610	99.2	21	13	103	352,060	487,560	2	13	54,060	13	182	12.5	39	201.4	32.8	26.2	124.9
645	1,3,5,7,11,15,17,18,19,25,26,27,30,32,34,36,37,38A,38B,38C,38D,38E,42,44	554,440	105	22	12	99	471,020	528,650	0	13	63,500	13	162	12.6	45.7	0.0	0.0	26.2	139.2
646	1,3,5,7,11,15,17,18,19,25,26,27,30,32,34,36,37,38A,38B,48,38D,38E,42,44	562,310	106.5	24	12	102	478,900	529,090	0	13	59,570	13	163	10	46.3	0.0	0.0	26.2	139.2
647	1,3,5,7,11,15,17,18,19,25,26,27,30,32,34,36,37,38A,45,46,38E,42,44	549,540	104.1	25	12	100	466,130	526,100	0	13	53,860	13	164	10	41	71.6	3.4	26.2	135.1
648	1,3,5,7,11,15,17,18,19,25,26,27,30,32,34,36,37,38A,45,47,41B,42,44	552,500	104.6	25	12	102	469,080	529,050	0	13	54,020	15	159	10.8	41.5	141.0	11.6	26.2	143.4
649	1,3,5,7,11,15,17,18,19,25,26,27,30,32,34,36,37,39,41A,41B,42,44	548,220	103.8	23	12	105	464,810	502,090	0	13	56,110	15	157	12.7	42.3	146.5	21.6	26.2	150.7
650	1,3,5,7,11,15,17,18,19,25,26,27,30,32,34,40,41A,41B,42,44	539,700	102.2	24	13	100	441,540	503,650	0	15	54,060	15	158	9.5	37	201.4	32.8	26.2	149.1
651	1,3,5,7,11,15,17,18,19,25,26,27,30,32,35,43,44	535,320	101.4	22	13	101	466,630	511,530	0	12	20,220	14	159	7.9	36.1	88.3	25.0	26.2	137.5
652	1,3,5,7,11,15,17,18,19,25,26,28,33,43,44	542,230	102.7	21	13	103	431,670	518,440	0	12	20,220	14	177	12.3	41.6	88.3	25.0	26.2	148.7
653	1,3,5,7,11,15,17,20,23,26,27,29,37,38A,38B,38C,38D,38E,42,44	555,580	105.2	26	10	102	478,320	540,270	0	11	69,380	11	158	13.2	48.8	0.0	0.0	26.2	212.1
654	1,3,5,7,11,15,17,20,23,26,27,29,37,38A,38B,48,38D,38E,42,44	563,450	106.7	28	10	105	486,190	540,710	0	11	65,450	11	159	10.6	49.4	0.0	0.0	26.2	212.1
655	1,3,5,7,11,15,17,20,23,26,27,29,37,38A,45,46,38E,42,44	550,680	104.3	29	10	103	473,420	537,720	0	11	59,730	11	160	10.6	44.1	71.6	3.4	26.2	208.0
656	1,3,5,7,11,15,17,20,23,26,27,29,37,38A,45,47,41B,42,44	553,640	104.9	29	10	105	476,380	540,670	0	11	59,890	13	155	11.4	44.6	141.0	11.6	26.2	216.3
657	1,3,5,7,11,15,17,20,23,26,27,29,37,39,41A,41B,42,44	549,360	104	27	10	108	472,110	513,710	0	11	61,990	13	153	13.3	45.4	146.5	21.6	26.2	223.6
658	1,3,5,7,11,15,17,20,23,26,27,30,31,36,37,38A,38B,38C,38D,38E,42,44	521,370	98.7	22	12	102	365,110	514,050	2	11	63,500	11	171	15.9	46.4	0.0	0.0	26.2	81.0
659	1,3,5,7,11,15,17,20,23,26,27,30,31,36,37,38A,38B,48,38D,38E,42,44	529,250	100.2	24	12	105	372,980	514,490	2	11	59,570	11	172	13.3	46.9	0.0	0.0	26.2	81.0
660	1,3,5,7,11,15,17,20,23,26,27,30,31,36,37,38A,45,46,38E,42,44	516,480	97.8	25	12	103	360,210	511,490	2	11	53,860	11	173	13.3	41.6	71.6	3.4	26.2	76.9
661	1,3,5,7,11,15,17,20,23,26,27,30,31,36,37,38A,45,47,41B,42,44	519,430	98.4	25	12	105	363,170	514,450	2	11	54,020	13	168	14.1	42.2	141.0	11.6	26.2	85.2
662	1,3,5,7,11,15,17,20,23,26,27,30,31,36,37,39,41A,41B,42,44	515,160	97.6	23	12	108	358,900	487,490	2	11	56,110	13	166	16	42.9	146.5	21.6	26.2	92.5
663	1,3,5,7,11,15,17,20,23,26,27,30,31,40,41A,41B,42,44	506,640	96	22	13	103	335,620	489,040	2	13	54,060	13	167	12.8	37.6	201.4	32.8	26.2	90.9
664	1,3,5,7,11,15,17,20,23,26,27,30,32,34,36,37,38A,38B,38C,38D,38E,42,44	537,460	101.8	23	12	99	454,580	530,130	0	13	63,500	13	147	12.8	44.3	0.0	0.0	26.2	105.2
665	1,3,5,7,11,15,17,20,23,26,27,30,32,34,36,37,38A,38B,48,38D,38E,42,44	545,330	103.3	25	12	102	462,450	530,580	0	13	59,570	13	148	10.2	44.9	0.0	0.0	26.2	105.2
666	1,3,5,7,11,15,17,20,23,26,27,30,32,34,36,37,38A,45,46,38E,42,44	532,560	100.9	26	12	100	449,680	527,580	0	13	53,860	13	149	10.2	39.6	71.6	3.4	26.2	101.1
667	1,3,5,7,11,15,17,20,23,26,27,30,32,34,36,37,38A,45,47,41B,42,44	535,520	101.4	26	12	102	452,640	530,540	0	13	54,020	15	144	11	40.1	141.0	11.6	26.2	109.4
668	1,3,5,7,11,15,17,20,23,26,27,30,32,34,36,37,39,41A,41B,42,44	531,250	100.6	24	12	105	448,370	503,570	0	13	56,110	15	142	12.9	40.9	146.5	21.6	26.2	116.7
669	1,3,5,7,11,15,17,20,23,26,27,30,32,34,40,41A,41B,42,44	522,720	99	25	13	100	425,100	505,130	0	15	54,060	15	143	9.7	35.6	201.4	32.8	26.2	115.1
670	1,3,5,7,11,15,17,20,23,26,27,30,32,35,43,44	518,350	98.2	23	13	101	450,190	513,010	0	12	20,220	14	144	8.1	34.7	88.3	25.0	26.2	103.5
671	1,3,5,7,11,15,17,20,23,26,28,33,43,44	525,250	99.5	22	13	103	415,230	519,920	0	12	20,220	14	162	12.5	40.2	88.3	25.0	26.2	114.7
672	1,3,5,7,11,15,17,20,24,27,29,37,38A,38B,38C,38D,38E,42,44	552,800	104.7	23	10	102	477,190	537,490	0	11	69,380	11	158	13.2	48.5	0.0	0.0	26.2	210.8
673	1,3,5,7,11,15,17,20,24,27,29,37,38A,38B,48,38D,38E,42,44	560,670	106.2	25	10	105	485,060	537,940	0	11	65,450	11	159	10.6	49.1	0.0	0.0	26.2	210.8
674	1,3,5,7,11,15,17,20,24,27,29,37,38A,45,46,38E,42,44	547,900	103.8	26	10	103	472,290	534,940	0	11	59,730	11	160	10.6	43.8	71.6	3.4	26.2	206.7
675	1,3,5,7,11,15,17,20,24,27,29,37,38A,45,47,41B,42,44	550,860	104.3	26	10	105	475,250	537,900	0	11	59,890	13	155	11.4	44.3	141.0	11.6	26.2	215.0
676	1,3,5,7,11,15,17,20,24,27,29,37,39,41A,41B,42,44	546,590	103.5	24	10	108	470,970	510,940	0	11	61,990	13	153	13.3	45.1	146.5	21.6	26.2	222.3
677	1,3,5,7,11,15,17,20,24,27,30,31,36,37,38A,38B,38C,38D,38E,42,44	518,600	98.2	19	12	102	363,980	511,270	2	11	63,500	11	171	15.9	46.1	0.0	0.0	26.2	79.7
678	1,3,5,7,11,15,17,20,24,27,30,31,36,37,38A,38B,48,38D,38E,42,44	526,470	99.7	21	12	105	371,850	511,720	2	11	59,570	11	172	13.3	46.6	0.0	0.0	26.2	79.7
679	1,3,5,7,11,15,17,20,24,27,30,31,36,37,38A,45,46,38E,42,44	513,700	97.3	22	12	103	359,080	508,720	2	11	53,860	11	173	13.3	41.3	71.6	3.4	26.2	75.6
680	1,3,5,7,11,15,17,20,24,27,30,31,36,37,38A,45,47,41B,42,44	516,660	97.9	22	12	105	362,040	511,680	2	11	54,020	13	168	14.1	41.9	141.0	11.6	26.2	83.9
681	1,3,5,7,11,15,17,20,24,27,30,31,36,37,39,41A,41B,42,44	512,390	97	20	12	108	357,760	484,710	2	11	56,110	13	166	16	42.6	14			

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 Wolf Creek - Blackberry

Route	Segments	Total Length (ft)	Total Length (mi)	Angles Over 30 Degrees (count)	Highway Crossings (count)	Other Roadway Crossings (count)	Length Not Along Existing Transmission Line (feet)	Length Not Along Roads (feet)	Oil/Gas Wells/Tanks in ROW (count)	Number of Pipeline Crossings (count)	Length Through Previously Mined Area (feet)	Transmission Line Crossings (count)	Stream Crossings (count)	Waterbodies in ROW (acres)	Wetlands in ROW (acres)	Gray Bat Critical Habitat in ROW (acres)	Woodland within Gray Bat Critical Habitat in ROW (acres)	Eastern Spotted Skunk Critical Habitat in ROW (acres)	Broadhead Skink State Critical Habitat in ROW (acres)
694	1,3,5,7,11,16,21,23,26,27,29,37,38A,45,47,41B,42,44	565,720	107.1	28	10	106	518,760	555,870	0	11	59,890	13	157	12.8	44.9	141.0	11.6	26.2	219.3
695	1,3,5,7,11,16,21,23,26,27,29,37,39,41A,41B,42,44	561,440	106.3	26	10	109	514,480	528,910	0	11	61,990	13	155	14.7	45.6	146.5	21.6	26.2	226.6
696	1,3,5,7,11,16,21,23,26,27,30,31,36,37,38A,38B,38C,38D,38E,42,44	533,460	101	21	12	103	407,490	529,240	2	11	63,500	11	173	17.3	46.6	0.0	0.0	26.2	83.9
697	1,3,5,7,11,16,21,23,26,27,30,31,36,37,38A,38B,48,38D,38E,42,44	541,330	102.5	23	12	106	415,360	529,690	2	11	59,570	11	174	14.7	47.1	0.0	0.0	26.2	83.9
698	1,3,5,7,11,16,21,23,26,27,30,31,36,37,38A,45,46,38E,42,44	528,560	100.1	24	12	104	402,590	526,690	2	11	53,860	11	175	14.6	41.9	71.6	3.4	26.2	79.8
699	1,3,5,7,11,16,21,23,26,27,30,31,36,37,38A,45,47,41B,42,44	531,520	100.7	24	12	106	405,550	529,650	2	11	54,020	13	170	15.5	42.4	141.0	11.6	26.2	88.2
700	1,3,5,7,11,16,21,23,26,27,30,31,36,37,39,41A,41B,42,44	527,240	99.9	22	12	109	401,270	502,690	2	11	56,110	13	168	17.3	43.1	146.5	21.6	26.2	95.4
701	1,3,5,7,11,16,21,23,26,27,30,31,40,41A,41B,42,44	518,720	98.2	21	13	104	378,000	504,240	2	13	54,060	13	169	14.1	37.8	201.4	32.8	26.2	93.9
702	1,3,5,7,11,16,21,23,26,27,30,32,34,36,37,38A,38B,38C,38D,38E,42,44	549,540	104.1	22	12	100	496,960	545,330	0	13	63,500	13	149	14.2	44.6	0.0	0.0	26.2	108.1
703	1,3,5,7,11,16,21,23,26,27,30,32,34,36,37,38A,38B,48,38D,38E,42,44	557,410	105.6	24	12	103	504,830	545,770	0	13	59,570	13	150	11.6	45.1	0.0	0.0	26.2	108.1
704	1,3,5,7,11,16,21,23,26,27,30,32,34,36,37,38A,45,46,38E,42,44	544,640	103.2	25	12	101	492,060	542,780	0	13	53,860	13	151	11.6	39.8	71.6	3.4	26.2	104.0
705	1,3,5,7,11,16,21,23,26,27,30,32,34,36,37,38A,45,47,41B,42,44	547,600	103.7	25	12	103	495,020	545,730	0	13	54,020	15	146	12.4	40.3	141.0	11.6	26.2	112.4
706	1,3,5,7,11,16,21,23,26,27,30,32,34,36,37,39,41A,41B,42,44	543,330	102.9	23	12	106	490,750	518,770	0	13	56,110	15	144	14.3	41.1	146.5	21.6	26.2	119.6
707	1,3,5,7,11,16,21,23,26,27,30,32,34,40,41A,41B,42,44	534,800	101.3	24	13	101	467,470	520,330	0	15	54,060	15	145	11.1	35.8	201.4	32.8	26.2	118.1
708	1,3,5,7,11,16,21,23,26,27,30,32,35,43,44	530,430	100.5	22	13	102	492,560	528,210	0	12	20,220	14	146	9.5	34.9	88.3	25.0	26.2	106.5
709	1,3,5,7,11,16,21,23,26,28,33,43,44	537,340	101.8	21	13	104	457,600	535,120	0	12	20,220	14	164	13.9	40.4	88.3	25.0	26.2	117.7
710	1,3,5,7,11,16,21,24,27,29,37,38A,38B,38C,38D,38E,42,44	564,880	107	24	10	103	519,560	552,690	0	11	69,380	14	160	14.6	48.8	0.0	0.0	26.2	213.8
711	1,3,5,7,11,16,21,24,27,29,37,38A,38B,48,38D,38E,42,44	572,750	108.5	26	10	106	527,440	553,140	0	11	65,450	11	161	12	49.3	0.0	0.0	26.2	213.8
712	1,3,5,7,11,16,21,24,27,29,37,38A,45,46,38E,42,44	559,980	106.1	27	10	104	514,670	550,140	0	11	59,730	11	162	12	44	71.6	3.4	26.2	209.7
713	1,3,5,7,11,16,21,24,27,29,37,38A,45,47,41B,42,44	562,940	106.6	27	10	106	517,630	553,100	0	11	59,890	13	157	12.8	44.6	141.0	11.6	26.2	218.0
714	1,3,5,7,11,16,21,24,27,29,37,39,41A,41B,42,44	558,670	105.8	25	10	109	513,350	526,140	0	11	61,990	13	155	14.7	45.3	146.5	21.6	26.2	225.3
715	1,3,5,7,11,16,21,24,27,30,31,36,37,38A,38B,38C,38D,38E,42,44	530,680	100.5	20	12	103	406,350	526,470	2	11	63,500	11	173	17.3	46.3	0.0	0.0	26.2	82.6
716	1,3,5,7,11,16,21,24,27,30,31,36,37,38A,38B,48,38D,38E,42,44	538,550	102	22	12	106	414,230	526,910	2	11	59,570	11	174	14.7	46.8	0.0	0.0	26.2	82.6
717	1,3,5,7,11,16,21,24,27,30,31,36,37,38A,45,46,38E,42,44	525,780	99.6	23	12	104	401,460	523,920	2	11	53,860	11	175	14.6	41.6	71.6	3.4	26.2	78.6
718	1,3,5,7,11,16,21,24,27,30,31,36,37,38A,45,47,41B,42,44	528,740	100.1	23	12	106	404,410	526,870	2	11	54,020	13	170	15.5	42.1	141.0	11.6	26.2	86.9
719	1,3,5,7,11,16,21,24,27,30,31,36,37,39,41A,41B,42,44	524,470	99.3	21	12	109	400,140	499,910	2	11	56,110	13	168	17.3	42.8	146.5	21.6	26.2	94.2
720	1,3,5,7,11,16,21,24,27,30,31,40,41A,41B,42,44	515,940	97.7	20	13	104	376,870	501,470	2	13	54,060	13	169	14.1	37.5	201.4	32.8	26.2	92.6
721	1,3,5,7,11,16,21,24,27,30,32,34,36,37,38A,38B,38C,38D,38E,42,44	546,770	103.6	21	12	100	495,830	542,560	0	13	63,500	13	149	14.2	44.2	0.0	0.0	26.2	106.8
722	1,3,5,7,11,16,21,24,27,30,32,34,36,37,38A,38B,48,38D,38E,42,44	554,640	105	23	12	103	503,700	543,000	0	13	59,570	13	150	11.6	44.8	0.0	0.0	26.2	106.8
723	1,3,5,7,11,16,21,24,27,30,32,34,36,37,38A,45,46,38E,42,44	541,870	102.6	24	12	101	490,930	540,000	0	13	53,860	13	151	11.6	39.5	71.6	3.4	26.2	102.8
724	1,3,5,7,11,16,21,24,27,30,32,34,36,37,38A,45,47,41B,42,44	544,830	103.2	24	12	103	493,890	542,960	0	13	54,020	15	146	12.4	40	141.0	11.6	26.2	111.1
725	1,3,5,7,11,16,21,24,27,30,32,34,36,37,39,41A,41B,42,44	540,560	102.4	22	12	106	489,620	516,000	0	13	56,110	15	144	14.3	40.8	146.5	21.6	26.2	118.4
726	1,3,5,7,11,16,21,24,27,30,32,34,40,41A,41B,42,44	532,030	100.8	23	13	101	466,340	517,550	0	15	54,060	15	145	11.1	35.5	201.4	32.8	26.2	116.8
727	1,3,5,7,11,16,21,24,27,30,32,35,43,44	527,650	99.9	21	13	102	491,430	525,440	0	12	20,220	14	146	9.5	34.6	88.3	25.0	26.2	105.2
728	1,3,5,7,11,16,21,24,28,33,43,44	534,560	101.2	22	13	104	456,470	532,340	0	12	20,220	14	164	13.9	40.1	88.3	25.0	26.2	116.4
729	1,3,5,7,11,16,22,33,43,44	510,590	96.7	20	13	106	475,780	508,380	2	12	20,220	12	150	13	38.9	88.3	25.0	26.2	105.4
	Max	631,420	119.6	29	14	110	538,570	555,910	3	18	69,380	15	210	20	55.4	201.4	32.8	205.9	257.6
	Average	536,299.7	101.6	20.2	11.8	102.7	448,736.2	510,908.0	1.0	11.5	54,359.5	12.1	164.0	13.6	44.4	87.2	12.0	54.8	138.2
	Min	485,280	91.9	12	10	96	329,070	449,800	0	10	20,220	9	137	7.9	32.2	0.0	0.0	26.2	75.6
	St. Dev	24,691.7	4.7	3.2	1.1	2.9	52,450.1	19,658.9	1.1	1.6	13,005.5	1.5	14.4	2.3	4.5	69.2	11.6	46.1	54.3

Appendix A - Route Data for All Routes
 Wolf Creek - Blackberry

Route	Sensitive Species Score (score)	Woodland in ROW (acres)	Cropland in ROW (acres)	Rangeland in ROW (acres)	NRHP Sites within 1/4 Mile (count)	Archaeological Sites within ROW (count)	Parcels Crossed (count)	Residences within 150 feet (count)	Residences within 300 feet (count)	Residences within 500 feet (count)	Residential Proximity Score (score)	Businesses within 300 feet (count)	Public Facilities within 500 feet (count)	Outbuildings in ROW (count)	Length Not Along Parcel Boundary (feet)	Low Karst Risk (feet)	Medium Karst Risk (feet)	High Karst Risk (feet)	Floodplain (acres)	Outbuildings in ROW in Eastern Spotted Skunk Habitat (count)	Total Length Karst (feet)
1	876.3	424.3	490.2	1024.8	0	1	335	2	14	14	50	0	1	5	250,090	124,420	152,130	63,280	213.1	0	339,830
2	860.0	408.0	521.8	1044.9	0	1	343	2	13	15	49	0	0	5	254,550	124,420	152,130	63,280	215.9	0	339,830
3	846.4	391.7	520.9	1047.3	0	1	337	1	12	13	41	0	0	5	251,170	124,420	152,130	63,280	216.2	0	339,830
4	868.0	388.6	526.8	1053.5	0	1	347	1	12	13	41	0	0	5	250,890	124,420	152,130	63,280	209.5	0	339,830
5	902.5	395.8	509.2	1040.9	0	1	340	2	17	15	57	1	0	5	231,590	124,420	152,130	63,280	212.1	0	339,830
6	613.5	292.6	599.5	965.3	0	0	315	5	15	17	67	0	1	5	294,630	151,300	135,790	49,850	215.4	0	336,940
7	597.1	276.2	631.1	985.4	0	0	323	5	14	18	66	0	0	5	299,090	151,300	135,790	49,850	218.2	0	336,940
8	583.6	260.0	630.2	987.9	0	0	317	4	13	16	58	0	0	5	295,710	151,300	135,790	49,850	218.5	0	336,940
9	605.2	256.9	636.1	994.0	0	0	327	4	13	16	58	0	0	5	295,440	151,300	135,790	49,850	211.8	0	336,940
10	639.7	264.1	618.5	981.5	0	0	320	5	18	18	74	1	0	5	276,140	151,300	135,790	49,850	214.4	0	336,940
11	658.5	262.1	654.8	925.5	0	0	324	1	22	15	63	0	0	6	309,580	140,480	133,410	49,850	237.7	0	323,740
12	662.4	317.3	647.9	949.6	0	0	317	4	14	16	60	0	2	3	283,170	158,200	138,900	49,850	222.6	0	346,950
13	646.0	300.9	679.6	969.7	0	0	325	4	13	17	59	0	1	3	287,630	158,200	138,900	49,850	225.4	0	346,950
14	632.5	284.7	678.7	972.1	0	0	319	3	12	15	51	0	1	3	284,250	158,200	138,900	49,850	225.7	0	346,950
15	654.1	281.6	684.6	978.3	0	0	329	3	12	15	51	0	1	3	283,970	158,200	138,900	49,850	219.0	0	346,950
16	688.6	288.8	667.0	965.7	0	0	322	4	17	17	67	1	1	3	264,680	158,200	138,900	49,850	221.6	0	346,950
17	707.4	286.8	703.2	909.7	0	0	326	0	21	14	56	0	1	4	298,120	147,380	136,520	49,850	244.9	0	333,750
18	680.7	287.3	691.9	919.2	0	1	321	2	15	10	48	0	1	4	299,280	171,380	119,430	49,850	253.1	0	340,660
19	702.4	297.8	667.3	952.6	0	1	319	0	15	8	38	0	0	4	323,930	152,990	119,990	56,310	267.8	0	329,290
20	678.9	367.1	554.8	859.0	0	1	327	2	15	14	52	0	1	3	353,810	114,490	137,840	56,210	213.6	0	308,540
21	662.5	350.7	586.5	879.1	0	1	335	2	14	15	51	0	0	3	358,270	114,490	137,840	56,210	216.4	0	308,540
22	649.0	334.5	585.6	881.6	0	1	329	1	13	13	43	0	0	3	354,890	114,490	137,840	56,210	216.7	0	308,540
23	670.6	331.4	591.4	887.7	0	1	339	1	13	13	43	0	0	3	354,620	114,490	137,840	56,210	210.0	0	308,540
24	705.1	338.6	573.9	875.2	0	1	332	2	18	15	59	1	0	3	335,320	114,490	137,840	56,210	212.6	0	308,540
25	416.1	235.4	664.2	799.5	0	0	307	5	16	17	69	0	1	3	398,360	141,380	121,510	42,780	215.9	0	305,670
26	399.7	219.0	695.8	819.7	0	0	315	5	15	18	68	0	0	3	402,820	141,380	121,510	42,780	218.7	0	305,670
27	386.1	202.7	694.9	822.1	0	0	309	4	14	16	60	0	0	3	399,440	141,380	121,510	42,780	219.0	0	305,670
28	407.7	199.6	700.8	828.2	0	0	319	4	14	16	60	0	0	3	399,160	141,380	121,510	42,780	212.3	0	305,670
29	442.3	206.9	683.2	815.7	0	0	312	5	19	18	76	1	0	3	379,860	141,370	121,510	42,780	214.9	0	305,660
30	461.1	204.9	719.4	759.7	0	0	316	1	23	15	65	0	0	4	413,300	130,550	119,130	42,780	238.2	0	292,460
31	465.0	260.1	712.6	783.8	0	0	309	4	15	16	62	0	2	1	386,890	148,280	124,620	42,780	223.1	0	315,680
32	448.6	243.7	744.2	803.9	0	0	317	4	14	17	61	0	1	1	391,350	148,280	124,620	42,780	225.9	0	315,680
33	435.0	227.4	743.3	806.3	0	0	311	3	13	15	53	0	1	1	387,970	148,280	124,620	42,780	226.2	0	315,680
34	456.6	224.3	749.2	812.5	0	0	321	3	13	15	53	0	1	1	387,700	148,280	124,620	42,780	219.5	0	315,680
35	491.2	231.6	731.7	799.9	0	0	314	4	18	17	69	1	1	1	368,400	148,270	124,620	42,780	222.1	0	315,670
36	510.0	229.6	767.9	743.9	0	0	318	0	22	14	58	0	1	2	401,840	137,450	122,240	42,780	245.4	0	302,470
37	483.3	230.1	756.6	753.5	0	1	313	2	16	10	50	0	1	2	403,000	161,450	105,140	42,780	253.6	0	309,370
38	504.9	240.5	732.0	786.8	0	1	311	0	16	8	40	0	0	2	427,650	143,060	105,700	49,240	268.3	0	298,000
39	609.9	332.1	513.3	885.7	0	1	316	2	14	14	50	0	1	2	386,950	118,040	126,070	68,900	195.0	0	313,010
40	593.5	315.7	544.9	905.8	0	1	324	2	13	15	49	0	0	2	391,410	118,040	126,070	68,900	197.8	0	313,010
41	579.9	299.4	544.0	908.2	0	1	318	1	12	13	41	0	0	2	388,030	118,040	126,070	68,900	198.1	0	313,010
42	601.5	296.3	549.9	914.4	0	1	328	1	12	13	41	0	0	2	387,750	118,040	126,070	68,900	191.4	0	313,010
43	636.1	303.6	532.3	901.8	0	1	321	2	17	15	57	1	0	2	368,450	118,030	126,070	68,900	193.9	0	313,000
44	347.0	200.3	622.6	826.2	0	0	296	5	15	17	67	0	1	2	431,490	144,920	109,730	55,470	197.3	0	310,120
45	330.7	184.0	654.3	846.3	0	0	304	5	14	18	66	0	0	2	435,950	144,920	109,730	55,470	200.1	0	310,120
46	317.1	167.7	653.4	848.7	0	0	298	4	13	16	58	0	0	2	432,570	144,920	109,730	55,470	200.4	0	310,120
47	338.7	164.6	659.3	854.9	0	0	308	4	13	16	58	0	0	2	432,300	144,920	109,730	55,470	193.7	0	310,120
48	373.2	171.8	641.7	842.3	0	0	301	5	18	18	74	1	0	2	413,000	144,910	109,730	55,470	196.3	0	310,110
49	392.1	169.9	677.9	786.3	0	0	305	1	22	15	63	0	0	3	446,440	134,090	107,350	55,470	219.5	0	296,910
50	395.9	225.0	671.1	810.4	0	0	298	4	14	16	60	0	2	0	420,030	151,820	112,840	55,470	204.5	0	320,130
51	379.6	208.7	702.7	830.6	0	0	306	4	13	17	59	0	1	0	424,490	151,820	112,840	55,470	207.3	0	320,130
52	366.0	192.4	701.8	833.0	0	0	300	3	12	15	51	0	1	0	421,110	151,820	112,840	55,470	207.6	0	320,130
53	387.6	189.3	707.7	839.1	0	0	310	3	12	15	51	0	1	0	420,830	151,820	112,840	55,470	200.9	0	320,130
54	422.1	196.5	690.1	826.6	0	0	303	4	17	17	67	1	1	0	401,530	151,810	112,840	55,470	203.4	0	320,120
55	441.0	194.6	726.4	770.6	0	0	307	0	21	14	56	0	1	1	434,970	140,990	110,460	55,470	226.7	0	306,920
56	414.3	195.1	715.1	780.1	0	1	302	2	15	10	48	0	1	1	436,130	164,990	93,370	55,470	235.0	0	313,830
57	435.9	205.5	690.4	813.4	0	1	300	0	15	8	38	0	0	1	460,780	146,600	93,930	61,930	249.7	0	302,460
58	607.3	330.8	511.1	879.1	0	1	314	2	14	14	50	0	1	2	388,340	118,040	126,070	66,090	195.0	0	310,200
59	590.9	314.4	542.7	899.3	0	1	322	2	13	15	49	0	0	2	392,800	118,040	126,070	66,090	197.8	0	310,200
60	577.3	298.1	541.8	901.7	0	1	316	1	12	13	41	0	0	2	389,420	118,040	126,070	66,090	198.1	0	310,200
61	598.9	295.0	547.7	907.8	0	1	326	1	12	13	41	0	0	2	389,140	118,040	126,070	66,090	191.4	0	310,200
62	633.5	302.3	530.1	895.3	0	1	319	2	17	15	57	1	0	2	369,840	118,030	126,070	66,090	193.9	0	310,190
63	344.5	199.1	620.																		

Appendix A - Route Data for All Routes
 Wolf Creek - Blackberry

Route	Sensitive Species Score (score)	Woodland in ROW (acres)	Cropland in ROW (acres)	Rangeland in ROW (acres)	NRHP Sites within 1/4 Mile (count)	Archaeological Sites within ROW (count)	Parcels Crossed (count)	Residences within 150 feet (count)	Residences within 300 feet (count)	Residences within 500 feet (count)	Residential Proximity Score (score)	Businesses within 300 feet (count)	Public Facilities within 500 feet (count)	Outbuildings in ROW (count)	Length Not Along Parcel Boundary (feet)	Low Karst Risk (feet)	Medium Karst Risk (feet)	High Karst Risk (feet)	Floodplain (acres)	Outbuildings in ROW in Eastern Spotted Skunk Habitat (count)	Total Length Karst (feet)
64	328.1	182.7	652.1	839.8	0	0	302	5	14	18	66	0	0	2	437,340	144,920	109,730	52,660	200.1	0	307,310
65	314.5	166.4	651.2	842.2	0	0	296	4	13	16	58	0	0	2	433,960	144,920	109,730	52,660	200.4	0	307,310
66	336.1	163.3	657.0	848.4	0	0	306	4	13	16	58	0	0	2	433,690	144,920	109,730	52,660	193.7	0	307,310
67	370.6	170.5	639.5	835.8	0	0	299	5	18	18	74	1	0	2	414,390	144,910	109,730	52,660	196.3	0	307,300
68	389.5	168.6	675.7	779.8	0	0	303	1	22	15	63	0	0	3	447,830	134,090	107,350	52,660	219.5	0	294,100
69	393.4	223.8	668.9	803.9	0	0	296	4	14	16	60	0	2	0	421,420	151,820	112,840	52,660	204.5	0	317,320
70	377.0	207.4	700.5	824.0	0	0	304	4	13	17	59	0	1	0	425,880	151,820	112,840	52,660	207.3	0	317,320
71	363.4	191.1	699.6	826.4	0	0	298	3	12	15	51	0	1	0	422,500	151,820	112,840	52,660	207.6	0	317,320
72	385.0	188.0	705.5	832.6	0	0	308	3	12	15	51	0	1	0	422,220	151,820	112,840	52,660	200.9	0	317,320
73	419.5	195.2	687.9	820.0	0	0	301	4	17	17	67	1	1	0	402,920	151,810	112,840	52,660	203.4	0	317,310
74	438.4	193.3	724.2	764.0	0	0	305	0	21	14	56	0	1	1	436,370	140,990	110,460	52,660	226.7	0	304,110
75	411.7	193.8	712.9	773.6	0	1	300	2	15	10	48	0	1	1	437,520	164,990	93,370	52,660	235.0	0	311,020
76	433.4	204.2	688.2	806.9	0	1	298	0	15	8	38	0	0	1	462,170	146,600	93,930	59,120	249.7	0	299,650
77	655.7	374.9	515.6	885.3	0	1	341	2	13	18	52	0	1	2	355,970	112,880	144,680	72,840	201.5	0	330,400
78	639.3	358.5	547.2	905.4	0	1	349	2	12	19	51	0	0	2	360,430	112,880	144,680	72,840	204.3	0	330,400
79	625.8	342.3	546.3	907.8	0	1	343	1	11	17	43	0	0	2	357,050	112,880	144,680	72,840	204.6	0	330,400
80	647.4	339.2	552.2	914.0	0	1	353	1	11	17	43	0	0	2	356,780	112,880	144,680	72,840	197.9	0	330,400
81	681.9	346.4	534.6	901.4	0	1	346	2	16	19	59	1	0	2	337,480	112,870	144,680	72,840	200.5	0	330,390
82	392.8	243.2	624.9	825.8	0	0	321	5	14	21	69	0	1	2	400,520	139,760	128,350	59,420	203.8	0	327,530
83	376.4	226.8	656.5	845.9	0	0	329	5	13	22	68	0	0	2	404,980	139,760	128,350	59,420	206.6	0	327,530
84	362.8	210.5	655.6	848.3	0	0	323	4	12	20	60	0	0	2	401,600	139,760	128,350	59,420	206.9	0	327,530
85	384.5	207.4	661.5	854.5	0	0	333	4	12	20	60	0	0	2	401,320	139,760	128,350	59,420	200.2	0	327,530
86	419.0	214.7	644.0	841.9	0	0	326	5	17	22	76	1	0	2	382,020	139,750	128,350	59,420	202.8	0	327,520
87	437.9	212.7	680.2	786.0	0	0	330	1	21	19	65	0	0	3	415,470	128,940	125,970	59,420	226.1	0	314,330
88	441.7	267.9	673.4	810.0	0	0	323	4	13	20	62	0	2	0	389,050	146,660	131,460	59,420	211.0	0	337,540
89	425.3	251.5	705.0	830.2	0	0	331	4	12	21	61	0	1	0	393,510	146,660	131,460	59,420	213.8	0	337,540
90	411.7	235.2	704.1	832.6	0	0	325	3	11	19	53	0	1	0	390,130	146,660	131,460	59,420	214.1	0	337,540
91	433.4	232.1	710.0	838.8	0	0	335	3	11	19	53	0	1	0	389,860	146,660	131,460	59,420	207.4	0	337,540
92	467.9	239.4	692.4	826.2	0	0	328	4	16	21	69	1	1	0	370,560	146,650	131,460	59,420	210.0	0	337,530
93	486.8	237.4	728.6	770.2	0	0	332	0	20	18	58	0	1	1	404,000	135,840	129,080	59,420	233.3	0	324,340
94	460.1	237.9	717.3	779.7	0	1	327	2	14	14	50	0	1	1	405,160	159,830	111,990	59,420	241.5	0	331,240
95	481.7	248.3	692.7	813.1	0	1	325	0	14	12	40	0	0	1	429,810	141,440	112,540	65,870	256.2	0	319,850
96	653.1	373.6	513.4	878.7	0	1	339	2	13	18	52	0	1	2	357,360	112,880	144,680	70,030	201.5	0	327,590
97	636.7	357.2	545.0	898.9	0	1	347	2	12	19	51	0	0	2	361,820	112,880	144,680	70,030	204.3	0	327,590
98	623.2	341.0	544.1	901.3	0	1	341	1	11	17	43	0	0	2	358,440	112,880	144,680	70,030	204.6	0	327,590
99	644.8	337.9	550.0	907.5	0	1	351	1	11	17	43	0	0	2	358,170	112,880	144,680	70,030	197.9	0	327,590
100	679.3	345.1	532.4	894.9	0	1	344	2	16	19	59	1	0	2	338,870	112,870	144,680	70,030	200.5	0	327,580
101	390.2	241.9	622.7	819.3	0	0	319	5	14	21	69	0	1	2	401,910	139,760	128,350	56,600	203.8	0	324,710
102	373.8	225.5	654.3	839.4	0	0	327	5	13	22	68	0	0	2	406,370	139,760	128,350	56,600	206.6	0	324,710
103	360.4	209.3	653.4	841.8	0	0	321	4	12	20	60	0	0	2	402,990	139,760	128,350	56,600	206.9	0	324,710
104	381.9	206.1	659.3	848.0	0	0	331	4	12	20	60	0	0	2	402,710	139,760	128,350	56,600	200.2	0	324,710
105	416.5	213.4	641.8	835.4	0	0	324	5	17	22	76	1	0	2	383,420	139,750	128,350	56,600	202.8	0	324,700
106	435.3	211.4	678.0	779.4	0	0	328	1	21	19	65	0	0	3	416,860	128,940	125,970	56,600	226.1	0	311,510
107	439.1	266.6	671.2	803.5	0	0	321	4	13	20	62	0	2	0	390,440	146,660	131,460	56,600	211.0	0	334,720
108	422.7	250.2	702.8	823.6	0	0	329	4	12	21	61	0	1	0	394,910	146,660	131,460	56,600	213.8	0	334,720
109	409.3	234.0	701.9	826.1	0	0	323	3	11	19	53	0	1	0	391,520	146,660	131,460	56,600	214.1	0	334,720
110	430.8	230.8	707.8	832.2	0	0	333	3	11	19	53	0	1	0	391,250	146,660	131,460	56,600	207.4	0	334,720
111	465.4	238.1	690.2	819.7	0	0	326	4	16	21	69	1	1	0	371,950	146,650	131,460	56,600	210.0	0	334,710
112	484.2	236.1	726.4	763.7	0	0	330	0	20	18	58	0	1	1	405,390	135,840	129,080	56,600	233.3	0	321,520
113	457.5	236.6	715.1	773.2	0	1	325	2	14	14	50	0	1	1	406,550	159,830	111,990	56,600	241.5	0	328,420
114	479.1	247.0	690.5	806.5	0	1	323	0	14	12	40	0	0	1	431,200	141,440	112,540	63,060	256.2	0	317,040
115	457.8	236.7	674.5	750.7	0	1	312	0	14	11	39	0	0	1	437,840	149,050	93,490	66,980	257.7	0	309,520
116	877.9	431.2	537.2	977.1	0	2	334	2	15	20	58	0	1	5	243,720	124,610	141,840	63,280	232.4	0	329,730
117	861.5	414.8	568.8	997.2	0	2	342	2	14	21	57	0	0	5	248,180	124,610	141,840	63,280	235.2	0	329,730
118	847.9	398.5	567.9	999.7	0	2	336	1	13	19	49	0	0	5	244,800	124,610	141,840	63,280	235.5	0	329,730
119	869.5	395.4	573.8	1005.8	0	2	346	1	13	19	49	0	0	5	244,530	124,610	141,840	63,280	228.8	0	329,730
120	904.1	402.7	556.2	993.3	0	2	339	2	18	21	65	1	0	5	225,230	124,600	141,840	63,280	231.3	0	329,720
121	615.0	299.4	646.5	917.6	0	1	314	5	16	23	75	0	1	5	288,270	151,490	125,500	49,850	234.7	0	326,840
122	598.7	283.1	678.1	937.8	0	1	322	5	15	24	74	0	0	5	292,730	151,490	125,500	49,850	237.5	0	326,840
123	585.1	266.8	677.2	940.2	0	1	316	4	14	22	66	0	0	5	289,350	151,490	125,500	49,850	237.8	0	326,840
124	606.7	263.7	683.1	946.3	0	1	326	4	14	22	66	0	0	5	289,070	151,490	125,500	49,850	231.1	0	326,840
125	641.2	270.9	665.6	933.8	0	1	319	5	19	24	82	1	0	5	269,770	151,480	125,500	49,850	233.7	0	326,830

Appendix A - Route Data for All Routes
Wolf Creek - Blackberry

Route	Sensitive Species Score (score)	Woodland in ROW (acres)	Cropland in ROW (acres)	Rangeland in ROW (acres)	NRHP Sites within 1/4 Mile (count)	Archaeological Sites within ROW (count)	Parcels Crossed (count)	Residences within 150 feet (count)	Residences within 300 feet (count)	Residences within 500 feet (count)	Residential Proximity Score (score)	Businesses within 300 feet (count)	Public Facilities within 500 feet (count)	Outbuildings in ROW (count)	Length Not Along Parcel Boundary (feet)	Low Karst Risk (feet)	Medium Karst Risk (feet)	High Karst Risk (feet)	Floodplain (acres)	Outbuildings in ROW in Eastern Spotted Skunk Habitat (count)	Total Length Karst (feet)
127	663.9	324.1	695.0	901.9	0	1	316	4	15	22	68	0	2	3	276,800	158,390	128,610	49,850	241.9	0	336,850
128	647.6	307.8	726.6	922.0	0	1	324	4	14	23	67	0	1	3	281,270	158,390	128,610	49,850	244.7	0	336,850
129	634.0	291.5	725.7	924.4	0	1	318	3	13	21	59	0	1	3	277,880	158,390	128,610	49,850	245.0	0	336,850
130	655.6	288.4	731.6	930.6	0	1	328	3	13	21	59	0	1	3	277,610	158,390	128,610	49,850	238.3	0	336,850
131	690.1	295.6	714.0	918.0	0	1	321	4	18	23	75	1	1	3	258,310	158,380	128,610	49,850	240.9	0	336,840
132	709.0	293.7	750.2	862.0	0	1	325	0	22	20	64	0	1	4	291,750	147,570	126,230	49,850	264.1	0	323,650
133	682.3	294.2	738.9	871.5	0	2	320	2	16	16	56	0	1	4	292,910	171,560	109,140	49,850	272.4	0	330,550
134	703.9	304.6	714.3	904.9	0	2	318	0	16	14	46	0	0	4	317,560	153,170	109,690	56,310	287.1	0	319,170
135	680.3	373.9	601.9	811.3	0	2	326	2	16	20	60	0	1	3	347,450	114,680	127,550	56,210	232.9	0	298,440
136	664.0	357.6	633.5	831.5	0	2	334	2	15	21	59	0	0	3	351,910	114,680	127,550	56,210	235.7	0	298,440
137	650.4	341.3	632.6	833.9	0	2	328	1	14	19	51	0	0	3	348,530	114,680	127,550	56,210	236.0	0	298,440
138	672.0	338.2	638.5	840.0	0	2	338	1	14	19	51	0	0	3	348,250	114,680	127,550	56,210	229.3	0	298,440
139	706.5	345.4	620.9	827.5	0	2	331	2	19	21	67	1	0	3	328,950	114,670	127,550	56,210	231.9	0	298,430
140	417.5	242.2	711.2	751.8	0	1	306	5	17	23	77	0	1	3	391,990	141,560	111,210	42,780	235.2	0	295,550
141	401.2	225.9	742.8	772.0	0	1	314	5	16	24	76	0	0	3	396,450	141,560	111,210	42,780	238.0	0	295,550
142	387.6	209.6	741.9	774.4	0	1	308	4	15	22	68	0	0	3	393,070	141,560	111,210	42,780	238.3	0	295,550
143	409.2	206.5	747.8	780.6	0	1	318	4	15	22	68	0	0	3	392,800	141,560	111,210	42,780	231.6	0	295,550
144	443.7	213.7	730.2	768.0	0	1	311	5	20	24	84	1	0	3	373,500	141,560	111,210	42,780	234.2	0	295,550
145	462.5	211.7	766.5	712.0	0	1	315	1	24	21	73	0	0	4	406,940	130,740	108,840	42,780	257.5	0	282,360
146	466.4	266.9	759.6	736.1	0	1	308	4	16	22	70	0	2	1	380,530	148,460	114,330	42,780	242.4	0	305,570
147	450.1	250.6	791.3	756.2	0	1	316	4	15	23	69	0	1	1	384,990	148,460	114,330	42,780	245.2	0	305,570
148	436.5	234.3	790.4	758.6	0	1	310	3	14	21	61	0	1	1	381,610	148,460	114,330	42,780	245.5	0	305,570
149	458.1	231.2	796.2	764.8	0	1	320	3	14	21	61	0	1	1	381,330	148,460	114,330	42,780	238.8	0	305,570
150	492.6	238.4	778.7	752.2	0	1	313	4	19	23	77	1	1	1	362,030	148,460	114,330	42,780	241.4	0	305,570
151	511.4	236.4	814.9	696.2	0	1	317	0	23	20	66	0	1	2	395,480	137,640	111,950	42,780	264.7	0	292,370
152	484.8	237.0	803.6	705.8	0	2	312	2	17	16	58	0	1	2	396,640	161,630	94,850	42,780	272.9	0	299,260
153	506.4	247.4	779.0	739.1	0	2	310	0	17	14	48	0	0	2	421,280	143,250	95,410	49,240	287.6	0	287,900
154	611.3	338.9	560.3	838.0	0	2	315	2	15	20	58	0	1	2	380,580	118,220	115,780	68,900	214.2	0	302,900
155	594.9	322.5	592.0	858.1	0	2	323	2	14	21	57	0	0	2	385,040	118,220	115,780	68,900	217.0	0	302,900
156	581.4	306.3	591.1	860.5	0	2	317	1	13	19	49	0	0	2	381,660	118,220	115,780	68,900	217.3	0	302,900
157	603.0	303.2	596.9	866.7	0	2	327	1	13	19	49	0	0	2	381,390	118,220	115,780	68,900	210.6	0	302,900
158	637.5	310.4	579.4	854.1	0	2	320	2	18	21	65	1	0	2	362,090	118,220	115,780	68,900	213.2	0	302,900
159	348.5	207.2	669.7	778.5	0	1	295	5	16	23	75	0	1	2	425,130	145,100	99,440	55,470	216.6	0	300,010
160	332.1	190.8	701.3	798.6	0	1	303	5	15	24	74	0	0	2	429,590	145,100	99,440	55,470	219.4	0	300,010
161	318.6	174.6	700.4	801.0	0	1	297	4	14	22	66	0	0	2	426,210	145,100	99,440	55,470	219.7	0	300,010
162	340.1	171.4	706.3	807.2	0	1	307	4	14	22	66	0	0	2	425,930	145,100	99,440	55,470	213.0	0	300,010
163	374.7	178.7	688.7	794.6	0	1	300	5	19	24	82	1	0	2	406,630	145,100	99,440	55,470	215.5	0	300,010
164	393.5	176.7	724.9	738.6	0	1	304	1	23	21	71	0	0	3	440,070	134,280	97,060	55,470	238.8	0	286,810
165	397.4	231.9	718.1	762.7	0	1	297	4	15	22	68	0	2	0	413,660	152,000	102,550	55,470	223.8	0	310,020
166	381.0	215.5	749.7	782.9	0	1	305	4	14	23	67	0	1	0	418,120	152,000	102,550	55,470	226.6	0	310,020
167	367.5	199.3	748.8	785.3	0	1	299	3	13	21	59	0	1	0	414,740	152,000	102,550	55,470	226.9	0	310,020
168	389.0	196.1	754.7	791.5	0	1	309	3	13	21	59	0	1	0	414,470	152,000	102,550	55,470	220.2	0	310,020
169	423.6	203.4	737.2	778.9	0	1	302	4	18	23	75	1	1	0	395,170	152,000	102,550	55,470	222.7	0	310,020
170	442.4	201.4	773.4	722.9	0	1	306	0	22	20	64	0	1	1	428,610	141,180	100,170	55,470	246.0	0	296,820
171	415.7	201.9	762.1	732.4	0	2	301	2	16	16	56	0	1	1	429,770	165,170	83,080	55,470	254.3	0	303,720
172	437.3	212.3	737.5	765.7	0	2	299	0	16	14	46	0	0	1	454,420	146,790	83,640	61,930	268.9	0	292,360
173	608.7	337.6	558.1	831.4	0	2	313	2	15	20	58	0	1	2	381,970	118,220	115,780	66,090	214.2	0	300,090
174	592.4	321.3	589.7	851.6	0	2	321	2	14	21	57	0	0	2	386,430	118,220	115,780	66,090	217.0	0	300,090
175	578.8	305.0	588.9	854.0	0	2	315	1	13	19	49	0	0	2	383,050	118,220	115,780	66,090	217.3	0	300,090
176	600.4	301.9	594.7	860.1	0	2	325	1	13	19	49	0	0	2	382,780	118,220	115,780	66,090	210.6	0	300,090
177	634.9	309.1	577.2	847.6	0	2	318	2	18	21	65	1	0	2	363,480	118,220	115,780	66,090	213.2	0	300,090
178	345.9	205.9	667.5	771.9	0	1	293	5	16	23	75	0	1	2	426,520	145,100	99,440	52,660	216.6	0	297,200
179	329.5	189.5	699.1	792.1	0	1	301	5	15	24	74	0	0	2	430,980	145,100	99,440	52,660	219.4	0	297,200
180	316.0	173.3	698.2	794.5	0	1	295	4	14	22	66	0	0	2	427,600	145,100	99,440	52,660	219.7	0	297,200
181	337.6	170.2	704.1	800.7	0	1	305	4	14	22	66	0	0	2	427,320	145,100	99,440	52,660	213.0	0	297,200
182	372.1	177.4	686.5	788.1	0	1	298	5	19	24	82	1	0	2	408,020	145,100	99,440	52,660	215.5	0	297,200
183	390.9	175.4	722.7	732.1	0	1	302	1	23	21	71	0	0	3	441,460	134,280	97,060	52,660	238.8	0	284,000
184	394.8	230.6	715.9	756.2	0	1	295	4	15	22	68	0	2	0	415,050	152,000	102,550	52,660	223.8	0	307,210
185	378.4	214.2	747.5	776.3	0	1	303	4	14	23	67	0	1	0	419,510	152,000	102,550	52,660	226.6	0	307,210
186	364.9	198.0	746.6	778.7	0	1	297	3	13	21	59	0	1	0	416,130	152,000	102,550	52,660	226.9	0	307,210
187	386.5	194.9	752.5	784.9	0	1	307	3	13	21	59	0	1	0	415,860	152,000	102,550	52,660	220.2	0	307,210
188	421.0	202.1	735.0	772.3	0	1	300	4	18	23	75	1	1	0	396,560	152,000	102,550	52,660	222.7	0	

Appendix A - Route Data for All Routes
Wolf Creek - Blackberry

Route	Sensitive Species Score (score)	Woodland in ROW (acres)	Cropland in ROW (acres)	Rangeland in ROW (acres)	NRHP Sites within 1/4 Mile (count)	Archaeological Sites within ROW (count)	Parcels Crossed (count)	Residences within 150 feet (count)	Residences within 300 feet (count)	Residences within 500 feet (count)	Residential Proximity Score (score)	Businesses within 300 feet (count)	Public Facilities within 500 feet (count)	Outbuildings in ROW (count)	Length Not Along Parcel Boundary (feet)	Low Karst Risk (feet)	Medium Karst Risk (feet)	High Karst Risk (feet)	Floodplain (acres)	Outbuildings in ROW in Eastern Spotted Skunk Habitat (count)	Total Length Karst (feet)
190	413.1	200.6	759.9	725.9	0	2	299	2	16	16	56	0	1	1	431,160	165,170	83,080	52,660	254.3	0	300,910
191	434.9	211.1	735.3	759.2	0	2	297	0	16	14	46	0	0	1	455,810	146,790	83,640	59,120	268.9	0	289,550
192	657.1	381.7	562.6	837.6	0	2	340	2	14	24	60	0	1	2	349,610	113,060	134,390	72,840	220.8	0	320,290
193	640.8	365.4	594.2	857.7	0	2	348	2	13	25	59	0	0	2	354,070	113,060	134,390	72,840	223.6	0	320,290
194	627.2	349.1	593.3	860.1	0	2	342	1	12	23	51	0	0	2	350,690	113,060	134,390	72,840	223.9	0	320,290
195	648.8	346.0	599.2	866.3	0	2	352	1	12	23	51	0	0	2	350,410	113,060	134,390	72,840	217.2	0	320,290
196	683.3	353.2	581.6	853.7	0	2	345	2	17	25	67	1	0	2	331,120	113,060	134,390	72,840	219.7	0	320,290
197	394.2	250.0	671.9	778.1	0	1	320	5	15	27	77	0	1	2	394,150	139,940	118,060	59,420	223.1	0	317,420
198	377.9	233.7	703.6	798.2	0	1	328	5	14	28	76	0	0	2	398,610	139,940	118,060	59,420	225.9	0	317,420
199	364.3	217.4	702.7	800.6	0	1	322	4	13	26	68	0	0	2	395,230	139,940	118,060	59,420	226.2	0	317,420
200	386.0	214.3	708.5	806.8	0	1	332	4	13	26	68	0	0	2	394,960	139,940	118,060	59,420	219.5	0	317,420
201	420.4	221.5	691.0	794.3	0	1	325	5	18	28	84	1	0	2	375,660	139,940	118,060	59,420	222.1	0	317,420
202	439.4	219.6	727.2	738.3	0	1	329	1	22	25	73	0	0	3	409,100	129,120	115,680	59,420	245.4	0	304,220
203	443.1	274.7	720.4	762.4	0	1	322	4	14	26	70	0	2	0	382,690	146,840	121,170	59,420	230.3	0	327,430
204	426.8	258.4	752.0	782.5	0	1	330	4	13	27	69	0	1	0	387,150	146,840	121,170	59,420	233.1	0	327,430
205	413.2	242.1	751.1	784.9	0	1	324	3	12	25	61	0	1	0	383,770	146,840	121,170	59,420	233.4	0	327,430
206	434.9	239.0	757.0	791.1	0	1	334	3	12	25	61	0	1	0	383,490	146,840	121,170	59,420	226.7	0	327,430
207	469.3	246.2	739.4	778.5	0	1	327	4	17	27	77	1	1	0	364,200	146,840	121,170	59,420	229.3	0	327,430
208	488.3	244.3	775.7	722.5	0	1	331	0	21	24	66	0	1	1	397,640	136,020	118,790	59,420	252.5	0	314,230
209	461.6	244.8	764.4	732.0	0	2	326	2	15	20	58	0	1	1	398,800	160,020	101,690	59,420	260.8	0	321,130
210	483.2	255.2	739.7	765.4	0	2	324	0	15	18	48	0	0	1	423,450	141,630	102,250	65,870	275.5	0	309,750
211	654.6	380.5	560.4	831.0	0	2	338	2	14	24	60	0	1	2	351,000	113,060	134,390	70,030	220.8	0	317,480
212	638.2	364.1	592.0	851.2	0	2	346	2	13	25	59	0	0	2	355,460	113,060	134,390	70,030	223.6	0	317,480
213	624.6	347.8	591.1	853.6	0	2	340	1	12	23	51	0	0	2	352,080	113,060	134,390	70,030	223.9	0	317,480
214	646.2	344.7	597.0	859.8	0	2	350	1	12	23	51	0	0	2	351,800	113,060	134,390	70,030	217.2	0	317,480
215	680.7	351.9	579.4	847.2	0	2	343	2	17	25	67	1	0	2	332,510	113,060	134,390	70,030	219.7	0	317,480
216	391.6	248.7	669.7	771.6	0	1	318	5	15	27	77	0	1	2	395,540	139,940	118,060	56,600	223.1	0	314,600
217	375.3	232.4	701.4	791.7	0	1	326	5	14	28	76	0	0	2	400,000	139,940	118,060	56,600	225.9	0	314,600
218	361.8	216.1	700.5	794.1	0	1	320	4	13	26	68	0	0	2	396,620	139,940	118,060	56,600	226.2	0	314,600
219	383.4	213.0	706.3	800.3	0	1	330	4	13	26	68	0	0	2	396,350	139,940	118,060	56,600	219.5	0	314,600
220	417.9	220.2	688.8	787.7	0	1	323	5	18	28	84	1	0	2	377,050	139,940	118,060	56,600	222.1	0	314,600
221	436.8	218.3	725.0	731.7	0	1	327	1	22	25	73	0	0	3	410,490	129,120	115,680	56,600	245.4	0	301,400
222	440.5	273.4	718.2	755.8	0	1	320	4	14	26	70	0	2	0	384,080	146,840	121,170	56,600	230.3	0	324,610
223	424.2	257.1	749.8	776.0	0	1	328	4	13	27	69	0	1	0	388,540	146,840	121,170	56,600	233.1	0	324,610
224	410.7	240.8	748.9	778.4	0	1	322	3	12	25	61	0	1	0	385,160	146,840	121,170	56,600	233.4	0	324,610
225	432.3	237.7	754.8	784.5	0	1	332	3	12	25	61	0	1	0	384,890	146,840	121,170	56,600	226.7	0	324,610
226	466.8	244.9	737.2	772.0	0	1	325	4	17	27	77	1	1	0	365,590	146,840	121,170	56,600	229.3	0	324,610
227	485.7	243.0	773.5	716.0	0	1	329	0	21	24	66	0	1	1	399,030	136,020	118,790	56,600	252.5	0	311,410
228	459.0	243.5	762.2	725.5	0	2	324	2	15	20	58	0	1	1	400,190	160,020	101,690	56,600	260.8	0	318,310
229	480.6	253.9	737.5	758.8	0	2	322	0	15	18	48	0	0	1	424,840	141,630	102,250	63,060	275.5	0	306,940
230	459.3	243.6	721.5	703.0	0	2	311	0	15	17	47	0	0	1	431,480	149,230	83,200	66,980	276.9	0	299,410
231	658.5	383.8	551.0	828.6	0	2	329	2	13	20	54	0	1	3	361,800	118,990	127,000	56,210	221.0	0	302,200
232	642.2	367.5	582.6	848.7	0	2	337	2	12	21	53	0	0	3	366,260	118,990	127,000	56,210	223.8	0	302,200
233	628.6	351.2	581.7	851.1	0	2	331	1	11	19	45	0	0	3	362,880	118,990	127,000	56,210	224.1	0	302,200
234	650.2	348.1	587.6	857.3	0	2	341	1	11	19	45	0	0	3	362,600	118,990	127,000	56,210	217.4	0	302,200
235	684.7	355.3	570.1	844.7	0	2	334	2	16	21	61	1	0	3	343,300	118,990	127,000	56,210	220.0	0	302,200
236	395.7	252.1	660.4	769.1	0	1	309	5	14	23	71	0	1	3	406,340	145,880	110,670	42,780	223.4	0	299,330
237	379.3	235.7	692.0	789.2	0	1	317	5	13	24	70	0	0	3	410,800	145,880	110,670	42,780	226.1	0	299,330
238	365.8	219.5	691.1	791.6	0	1	311	4	12	22	62	0	0	3	407,420	145,880	110,670	42,780	226.4	0	299,330
239	387.4	216.4	697.0	797.8	0	1	321	4	12	22	62	0	0	3	407,150	145,880	110,670	42,780	219.7	0	299,330
240	421.9	223.6	679.4	785.2	0	1	314	5	17	24	78	1	0	3	387,850	145,870	110,670	42,780	222.3	0	299,320
241	440.7	221.6	715.6	729.2	0	1	318	1	21	21	67	0	0	4	421,290	135,050	108,290	42,780	245.6	0	286,120
242	444.6	276.8	708.8	753.3	0	1	311	4	13	22	64	0	2	1	394,880	152,780	113,780	42,780	230.5	0	309,340
243	428.2	260.4	740.4	773.5	0	1	319	4	12	23	63	0	1	1	399,340	152,780	113,780	42,780	233.3	0	309,340
244	414.7	244.2	739.5	775.9	0	1	313	3	11	21	55	0	1	1	395,960	152,780	113,780	42,780	233.6	0	309,340
245	436.3	241.1	745.4	782.1	0	1	323	3	11	21	55	0	1	1	395,680	152,780	113,780	42,780	226.9	0	309,340
246	470.8	248.3	727.8	769.5	0	1	316	4	16	23	71	1	1	1	376,380	152,770	113,780	42,780	229.5	0	309,330
247	489.6	246.3	764.1	713.5	0	1	320	0	20	20	60	0	1	2	409,830	141,950	111,400	42,780	252.8	0	296,130
248	462.9	246.8	752.8	723.0	0	2	315	2	14	16	52	0	1	2	410,990	165,950	94,310	42,780	261.0	0	303,040
249	484.6	257.3	728.2	756.3	0	2	313	0	14	14	42	0	0	2	435,640	147,560	94,860	49,240	275.7	0	291,660
250	589.5	348.8	509.5	855.2	0	2	318	2	12	20	52	0	1	2	394,930	122,540	115,230	68,900	202.4	0	306,670
251	573.1	332.4	541.1	875.3	0	2	326	2	11	21	51	0	0	2	399,390	122,540	115,230	68,900	205.2	0	306,670
252	559.6	316.2	540.2	877.8	0	2</															

Appendix A - Route Data for All Routes
Wolf Creek - Blackberry

Route	Sensitive Species Score (score)	Woodland in ROW (acres)	Cropland in ROW (acres)	Rangeland in ROW (acres)	NRHP Sites within 1/4 Mile (count)	Archaeological Sites within ROW (count)	Parcels Crossed (count)	Residences within 150 feet (count)	Residences within 300 feet (count)	Residences within 500 feet (count)	Residential Proximity Score (score)	Businesses within 300 feet (count)	Public Facilities within 500 feet (count)	Outbuildings in ROW (count)	Length Not Along Parcel Boundary (feet)	Low Karst Risk (feet)	Medium Karst Risk (feet)	High Karst Risk (feet)	Floodplain (acres)	Outbuildings in ROW in Eastern Spotted Skunk Habitat (count)	Total Length Karst (feet)
253	581.2	313.1	546.1	883.9	0	2	330	1	10	19	43	0	0	2	395,740	122,540	115,230	68,900	198.8	0	306,670
254	615.7	320.3	528.5	871.4	0	2	323	2	15	21	59	1	0	2	376,440	122,530	115,230	68,900	201.3	0	306,660
255	326.7	217.1	618.8	795.7	0	1	298	5	13	23	69	0	1	2	439,480	149,420	98,890	55,470	204.7	0	303,780
256	310.3	200.7	650.5	815.9	0	1	306	5	12	24	68	0	0	2	443,940	149,420	98,890	55,470	207.5	0	303,780
257	296.7	184.4	649.6	818.3	0	1	300	4	11	22	60	0	0	2	440,560	149,420	98,890	55,470	207.8	0	303,780
258	318.3	181.3	655.4	824.4	0	1	310	4	11	22	60	0	0	2	440,280	149,420	98,890	55,470	201.1	0	303,780
259	352.9	188.6	637.9	811.9	0	1	303	5	16	24	76	1	0	2	420,980	149,410	98,890	55,470	203.7	0	303,770
260	371.7	186.6	674.1	755.9	0	1	307	1	20	21	65	0	0	3	454,420	138,590	96,510	55,470	226.9	0	290,570
261	375.6	241.8	667.3	780.0	0	1	300	4	12	22	62	0	2	0	428,010	156,320	102,000	55,470	211.9	0	313,790
262	359.2	225.4	698.9	800.1	0	1	308	4	11	23	61	0	1	0	432,470	156,320	102,000	55,470	214.7	0	313,790
263	345.6	209.1	698.0	802.5	0	1	302	3	10	21	53	0	1	0	429,090	156,320	102,000	55,470	215.0	0	313,790
264	367.2	206.0	703.9	808.7	0	1	312	3	10	21	53	0	1	0	428,820	156,320	102,000	55,470	208.3	0	313,790
265	401.8	213.3	686.3	796.1	0	1	305	4	15	23	69	1	1	0	409,520	156,310	102,000	55,470	210.9	0	313,780
266	420.6	211.3	722.6	740.1	0	1	309	0	19	20	58	0	1	1	442,960	145,490	99,620	55,470	234.1	0	300,580
267	393.9	211.8	711.3	749.6	0	2	304	2	13	16	50	0	1	1	444,120	169,490	82,530	55,470	242.4	0	307,490
268	415.5	222.2	686.6	783.0	0	2	302	0	13	14	40	0	0	1	468,770	151,100	83,090	61,930	257.1	0	296,120
269	586.9	347.5	507.3	848.7	0	2	316	2	12	20	52	0	1	2	396,320	122,540	115,230	66,090	202.4	0	303,860
270	570.6	331.2	538.9	868.8	0	2	324	2	11	21	51	0	0	2	400,780	122,540	115,230	66,090	205.2	0	303,860
271	557.0	314.9	538.0	871.2	0	2	318	1	10	19	43	0	0	2	397,400	122,540	115,230	66,090	205.5	0	303,860
272	578.6	311.8	543.9	877.4	0	2	328	1	10	19	43	0	0	2	397,130	122,540	115,230	66,090	198.8	0	303,860
273	613.1	319.0	526.3	864.8	0	2	321	2	15	21	59	1	0	2	377,830	122,530	115,230	66,090	201.3	0	303,850
274	324.1	215.8	616.6	789.2	0	1	296	5	13	23	69	0	1	2	440,870	149,420	98,890	52,660	204.7	0	300,970
275	307.7	199.4	648.3	809.3	0	1	304	5	12	24	68	0	0	2	445,330	149,420	98,890	52,660	207.5	0	300,970
276	294.2	183.2	647.4	811.7	0	1	298	4	11	22	60	0	0	2	441,950	149,420	98,890	52,660	207.8	0	300,970
277	315.7	180.0	653.2	817.9	0	1	308	4	11	22	60	0	0	2	441,670	149,420	98,890	52,660	201.1	0	300,970
278	350.3	187.3	635.7	805.3	0	1	301	5	16	24	76	1	0	2	422,370	149,410	98,890	52,660	203.7	0	300,960
279	369.1	185.3	671.9	749.3	0	1	305	1	20	21	65	0	0	3	455,820	138,590	96,510	52,660	226.9	0	287,760
280	373.0	240.5	665.1	773.4	0	1	298	4	12	22	62	0	2	0	429,400	156,320	102,000	52,660	211.9	0	310,980
281	356.6	224.1	696.7	793.6	0	1	306	4	11	23	61	0	1	0	433,860	156,320	102,000	52,660	214.7	0	310,980
282	343.1	207.9	695.8	796.0	0	1	300	3	10	21	53	0	1	0	430,480	156,320	102,000	52,660	215.0	0	310,980
283	364.6	204.7	701.7	802.2	0	1	310	3	10	21	53	0	1	0	430,210	156,320	102,000	52,660	208.3	0	310,980
284	399.2	212.0	684.1	789.6	0	1	303	4	15	23	69	1	1	0	410,910	156,310	102,000	52,660	210.9	0	310,970
285	418.0	210.0	720.4	733.6	0	1	307	0	19	20	58	0	1	1	444,350	145,490	99,620	52,660	234.1	0	297,770
286	391.3	210.5	709.1	743.1	0	2	302	2	13	16	50	0	1	1	445,510	169,490	82,530	52,660	242.4	0	304,680
287	413.0	220.9	684.4	776.4	0	2	300	0	13	14	40	0	0	1	470,160	151,100	83,090	59,120	257.1	0	293,310
288	635.3	391.6	511.8	854.8	0	2	343	2	11	24	54	0	1	2	363,960	117,380	133,840	72,840	208.9	0	324,060
289	619.0	375.3	543.4	875.0	0	2	351	2	10	25	53	0	0	2	368,420	117,380	133,840	72,840	211.7	0	324,060
290	605.4	359.0	542.5	877.4	0	2	345	1	9	23	45	0	0	2	365,040	117,380	133,840	72,840	212.0	0	324,060
291	627.0	355.9	548.4	883.6	0	2	355	1	9	23	45	0	0	2	364,760	117,380	133,840	72,840	205.3	0	324,060
292	661.5	363.1	530.8	871.0	0	2	348	2	14	25	61	1	0	2	345,470	117,370	133,840	72,840	207.9	0	324,050
293	372.4	259.9	621.1	795.3	0	1	323	5	12	27	71	0	1	2	408,500	144,260	117,510	59,420	211.2	0	321,190
294	356.1	243.6	652.7	815.5	0	1	331	5	11	28	70	0	0	2	412,960	144,260	117,510	59,420	214.0	0	321,190
295	342.5	227.3	651.8	817.9	0	1	325	4	10	26	62	0	0	2	409,580	144,260	117,510	59,420	214.3	0	321,190
296	364.2	224.2	657.7	824.1	0	1	335	4	10	26	62	0	0	2	409,310	144,260	117,510	59,420	207.6	0	321,190
297	398.6	231.4	640.1	811.5	0	1	328	5	15	28	78	1	0	2	390,010	144,250	117,510	59,420	210.2	0	321,180
298	417.5	229.4	676.4	755.5	0	1	332	1	19	25	67	0	0	3	423,450	133,440	115,130	59,420	233.5	0	307,990
299	421.3	284.6	669.6	779.6	0	1	325	4	11	26	64	0	2	0	397,040	151,160	120,620	59,420	218.4	0	331,200
300	405.0	268.3	701.2	799.7	0	1	333	4	10	27	63	0	1	0	401,500	151,160	120,620	59,420	221.2	0	331,200
301	391.4	252.0	700.3	802.1	0	1	327	3	9	25	55	0	1	0	398,120	151,160	120,620	59,420	221.5	0	331,200
302	413.1	248.9	706.2	808.3	0	1	337	3	9	25	55	0	1	0	397,840	151,160	120,620	59,420	214.8	0	331,200
303	447.5	256.1	688.6	795.8	0	1	330	4	14	27	71	1	1	0	378,550	151,150	120,620	59,420	217.4	0	331,190
304	466.4	254.1	724.8	739.8	0	1	334	0	18	24	60	0	1	1	411,990	140,340	118,240	59,420	240.7	0	318,000
305	439.8	254.7	713.5	749.3	0	2	329	2	12	20	52	0	1	1	413,150	164,330	101,150	59,420	248.9	0	324,900
306	461.4	265.1	688.9	782.6	0	2	327	0	12	18	42	0	0	1	437,800	145,940	101,700	65,870	263.6	0	313,510
307	632.8	390.4	509.6	848.3	0	2	341	2	11	24	54	0	1	2	365,350	117,380	133,840	70,030	208.9	0	321,250
308	616.4	374.0	541.2	868.4	0	2	349	2	10	25	53	0	0	2	369,810	117,380	133,840	70,030	211.7	0	321,250
309	602.8	357.7	540.3	870.8	0	2	343	1	9	23	45	0	0	2	366,430	117,380	133,840	70,030	212.0	0	321,250
310	624.4	354.6	546.2	877.0	0	2	353	1	9	23	45	0	0	2	366,160	117,380	133,840	70,030	205.3	0	321,250
311	658.9	361.8	528.6	864.4	0	2	346	2	14	25	61	1	0	2	346,860	117,370	133,840	70,030	207.9	0	321,240
312	369.8	258.6	618.9	788.8	0	1	321	5	12	27	71	0	1	2	409,900	144,260	117,510	56,600	211.2	0	318,370
313	353.5	242.3	650.5	808.9	0	1	329	5	11	28	70	0	0	2	414,360	144,260	117,510	56,600	214.0	0	318,370
314	340.0	226.0	649.6	811.4	0	1	323	4	10	26	62	0	0	2	410,970	144,260	117,510	56,600	214.3		

Appendix A - Route Data for All Routes
 Wolf Creek - Blackberry

Route	Sensitive Species Score (score)	Woodland in ROW (acres)	Cropland in ROW (acres)	Rangeland in ROW (acres)	NRHP Sites within 1/4 Mile (count)	Archaeological Sites within ROW (count)	Parcels Crossed (count)	Residences within 150 feet (count)	Residences within 300 feet (count)	Residences within 500 feet (count)	Residential Proximity Score (score)	Businesses within 300 feet (count)	Public Facilities within 500 feet (count)	Outbuildings in ROW (count)	Length Not Along Parcel Boundary (feet)	Low Karst Risk (feet)	Medium Karst Risk (feet)	High Karst Risk (feet)	Floodplain (acres)	Outbuildings in ROW in Eastern Spotted Skunk Habitat (count)	Total Length Karst (feet)
316	396.1	230.1	637.9	805.0	0	1	326	5	15	28	78	1	0	2	391,400	144,250	117,510	56,600	210.2	0	318,360
317	415.0	228.2	674.2	749.0	0	1	330	1	19	25	67	0	0	3	424,840	133,440	115,130	56,600	233.5	0	305,170
318	418.7	283.3	667.4	773.1	0	1	323	4	11	26	64	0	2	0	398,430	151,160	120,620	56,600	218.4	0	328,380
319	402.4	267.0	699.0	793.2	0	1	331	4	10	27	63	0	1	0	402,890	151,160	120,620	56,600	221.2	0	328,380
320	388.9	250.7	698.1	795.6	0	1	325	3	9	25	55	0	1	0	399,510	151,160	120,620	56,600	221.5	0	328,380
321	410.5	247.6	704.0	801.8	0	1	335	3	9	25	55	0	1	0	399,240	151,160	120,620	56,600	214.8	0	328,380
322	445.0	254.8	686.4	789.2	0	1	328	4	14	27	71	1	1	0	379,940	151,150	120,620	56,600	217.4	0	328,370
323	463.9	252.9	722.6	733.2	0	1	332	0	18	24	60	0	1	1	413,380	140,340	118,240	56,600	240.7	0	315,180
324	437.2	253.4	711.3	742.7	0	2	327	2	12	20	52	0	1	1	414,540	164,330	101,150	56,600	248.9	0	322,080
325	458.8	263.8	686.7	776.1	0	2	325	0	12	18	42	0	0	1	439,190	145,940	101,700	63,060	263.6	0	310,700
326	437.5	253.5	670.7	720.3	0	2	314	0	12	17	41	0	0	1	445,830	153,550	82,650	66,980	265.1	0	303,180
327	654.0	381.7	576.1	827.9	0	2	328	2	11	18	48	0	1	3	363,920	113,400	137,690	56,260	219.9	0	307,350
328	637.7	365.4	607.8	848.0	0	2	336	2	10	19	47	0	0	3	368,380	113,400	137,690	56,260	222.7	0	307,350
329	624.1	349.1	606.9	850.4	0	2	330	1	9	17	39	0	0	3	365,000	113,400	137,690	56,260	223.0	0	307,350
330	645.7	346.0	612.8	856.6	0	2	340	1	9	17	39	0	0	3	364,720	113,400	137,690	56,260	216.3	0	307,350
331	680.2	353.2	595.2	844.0	0	2	333	2	14	19	55	1	0	3	345,420	113,390	137,690	56,260	218.8	0	307,340
332	391.2	250.0	685.5	768.4	0	1	308	5	12	21	65	0	1	3	408,460	140,280	121,350	42,830	222.2	0	304,460
333	374.8	233.6	717.1	788.5	0	1	316	5	11	22	64	0	0	3	412,920	140,280	121,350	42,830	225.0	0	304,460
334	361.3	217.4	716.2	790.9	0	1	310	4	10	20	56	0	0	3	409,540	140,280	121,350	42,830	225.3	0	304,460
335	382.9	214.3	722.1	797.1	0	1	320	4	10	20	56	0	0	3	409,270	140,280	121,350	42,830	218.6	0	304,460
336	417.4	221.5	704.5	784.5	0	1	313	5	15	22	72	1	0	3	389,970	140,280	121,350	42,830	221.2	0	304,460
337	436.2	219.5	740.8	728.5	0	1	317	1	19	19	61	0	0	4	423,410	129,460	118,980	42,830	244.5	0	291,270
338	440.1	274.7	733.9	752.6	0	1	310	4	11	20	58	0	2	1	397,000	147,180	124,470	42,830	229.4	0	314,480
339	423.7	258.3	765.6	772.8	0	1	318	4	10	21	57	0	1	1	401,460	147,180	124,470	42,830	232.2	0	314,480
340	410.2	242.1	764.7	775.2	0	1	312	3	9	19	49	0	1	1	398,080	147,180	124,470	42,830	232.5	0	314,480
341	431.8	239.0	770.5	781.4	0	1	322	3	9	19	49	0	1	1	397,800	147,180	124,470	42,830	225.8	0	314,480
342	466.3	246.2	753.0	768.8	0	1	315	4	14	21	65	1	1	1	378,500	147,170	124,470	42,830	228.4	0	314,470
343	485.1	244.2	789.2	712.8	0	1	319	0	18	18	54	0	1	2	411,950	136,360	122,090	42,830	251.6	0	301,280
344	458.4	244.7	777.9	722.3	0	2	314	2	12	14	46	0	1	2	413,110	160,350	104,990	42,830	259.9	0	308,170
345	480.1	255.2	753.3	755.6	0	2	312	0	12	12	36	0	0	2	437,750	141,970	105,550	49,290	274.6	0	296,810
346	585.0	346.7	534.6	854.5	0	2	317	2	10	18	46	0	1	2	397,050	116,940	125,920	68,950	201.2	0	311,810
347	568.6	330.3	566.2	874.7	0	2	325	2	9	19	45	0	0	2	401,510	116,940	125,920	68,950	204.0	0	311,810
348	555.1	314.1	565.3	877.1	0	2	319	1	8	17	37	0	0	2	398,130	116,940	125,920	68,950	204.3	0	311,810
349	576.7	311.0	571.2	883.2	0	2	329	1	8	17	37	0	0	2	397,860	116,940	125,920	68,950	197.6	0	311,810
350	611.2	318.2	553.7	870.7	0	2	322	2	13	19	53	1	0	2	378,560	116,930	125,920	68,950	200.2	0	311,800
351	322.2	215.0	644.0	795.0	0	1	297	5	11	21	63	0	1	2	441,600	143,820	109,580	55,520	203.6	0	308,920
352	305.8	198.6	675.6	815.2	0	1	305	5	10	22	62	0	0	2	446,060	143,820	109,580	55,520	206.3	0	308,920
353	292.2	182.3	674.7	817.6	0	1	299	4	9	20	54	0	0	2	442,680	143,820	109,580	55,520	206.6	0	308,920
354	313.8	179.2	680.6	823.8	0	1	309	4	9	20	54	0	0	2	442,400	143,820	109,580	55,520	199.9	0	308,920
355	348.4	186.5	663.0	811.2	0	1	302	5	14	22	70	1	0	2	423,100	143,820	109,580	55,520	202.5	0	308,920
356	367.2	184.5	699.2	755.2	0	1	306	1	18	19	59	0	0	3	456,540	133,000	107,200	55,520	225.8	0	295,720
357	371.1	239.7	692.4	779.3	0	1	299	4	10	20	56	0	2	0	430,130	150,720	112,690	55,520	210.7	0	318,930
358	354.7	223.3	724.0	799.4	0	1	307	4	9	21	55	0	1	0	434,590	150,720	112,690	55,520	213.5	0	318,930
359	341.1	207.0	723.1	801.8	0	1	301	3	8	19	47	0	1	0	431,210	150,720	112,690	55,520	213.8	0	318,930
360	362.7	203.9	729.0	808.0	0	1	311	3	8	19	47	0	1	0	430,940	150,720	112,690	55,520	207.1	0	318,930
361	397.3	211.2	711.4	795.4	0	1	304	4	13	21	63	1	1	0	411,640	150,720	112,690	55,520	209.7	0	318,930
362	416.1	209.2	747.7	739.4	0	1	308	0	17	18	52	0	1	1	445,080	139,900	110,310	55,520	233.0	0	305,730
363	389.4	209.7	736.4	749.0	0	2	303	2	11	14	44	0	1	1	446,240	163,890	93,220	55,520	241.2	0	312,630
364	411.0	220.1	711.7	782.3	0	2	301	0	11	12	34	0	0	1	470,890	145,510	93,770	61,980	255.9	0	301,260
365	582.4	345.4	532.4	848.0	0	2	315	2	10	18	46	0	1	2	398,440	116,940	125,920	66,130	201.2	0	308,990
366	566.1	329.1	564.0	868.1	0	2	323	2	9	19	45	0	0	2	402,900	116,940	125,920	66,130	204.0	0	308,990
367	552.5	312.8	563.1	870.5	0	2	317	1	8	17	37	0	0	2	399,520	116,940	125,920	66,130	204.3	0	308,990
368	574.1	309.7	569.0	876.7	0	2	327	1	8	17	37	0	0	2	399,250	116,940	125,920	66,130	197.6	0	308,990
369	608.6	316.9	551.5	864.1	0	2	320	2	13	19	53	1	0	2	379,950	116,930	125,920	66,130	200.2	0	308,980
370	319.6	213.7	641.8	788.5	0	1	295	5	11	21	63	0	1	2	442,990	143,820	109,580	52,710	203.6	0	306,110
371	303.2	197.3	673.4	808.6	0	1	303	5	10	22	62	0	0	2	447,450	143,820	109,580	52,710	206.3	0	306,110
372	289.7	181.1	672.5	811.0	0	1	297	4	9	20	54	0	0	2	444,070	143,820	109,580	52,710	206.6	0	306,110
373	311.2	177.9	678.4	817.2	0	1	307	4	9	20	54	0	0	2	443,790	143,820	109,580	52,710	199.9	0	306,110
374	345.8	185.2	660.8	804.6	0	1	300	5	14	22	70	1	0	2	424,490	143,820	109,580	52,710	202.5	0	306,110
375	364.6	183.2	697.0	748.6	0	1	304	1	18	19	59	0	0	3	457,930	133,000	107,200	52,710	225.8	0	292,910
376	368.5	238.4	690.2	772.7	0	1	297	4	10	20	56	0	2	0	431,520	150,720	112,690	52,710	210.7	0	316,120
377	352.1	222.0	721.8	792.9	0	1	305	4	9	21	55	0	1	0	435,980	150,720	112,690	52,710	213.5		

Appendix A - Route Data for All Routes
Wolf Creek - Blackberry

Route	Sensitive Species Score (score)	Woodland in ROW (acres)	Cropland in ROW (acres)	Rangeland in ROW (acres)	NRHP Sites within 1/4 Mile (count)	Archaeological Sites within ROW (count)	Parcels Crossed (count)	Residences within 150 feet (count)	Residences within 300 feet (count)	Residences within 500 feet (count)	Residential Proximity Score (score)	Businesses within 300 feet (count)	Public Facilities within 500 feet (count)	Outbuildings in ROW (count)	Length Not Along Parcel Boundary (feet)	Low Karst Risk (feet)	Medium Karst Risk (feet)	High Karst Risk (feet)	Floodplain (acres)	Outbuildings in ROW in Eastern Spotted Skunk Habitat (count)	Total Length Karst (feet)
379	360.1	202.6	726.8	801.5	0	1	309	3	8	19	47	0	1	0	432,330	150,720	112,690	52,710	207.1	0	316,120
380	394.7	209.9	709.2	788.9	0	1	302	4	13	21	63	1	1	0	413,030	150,720	112,690	52,710	209.7	0	316,120
381	413.5	207.9	745.5	732.9	0	1	306	0	17	18	52	0	1	1	446,470	139,900	110,310	52,710	233.0	0	302,920
382	386.8	208.4	734.2	742.4	0	2	301	2	11	14	44	0	1	1	447,630	163,890	93,220	52,710	241.2	0	309,820
383	408.5	218.8	709.5	775.8	0	2	299	0	11	12	34	0	0	1	472,280	145,510	93,770	59,170	255.9	0	298,450
384	628.6	387.3	537.9	847.5	0	2	344	2	9	21	47	0	1	2	367,520	111,290	144,290	71,360	209.2	0	326,940
385	612.2	370.9	569.5	867.7	0	2	352	2	8	22	46	0	0	2	371,980	111,290	144,290	71,360	212.0	0	326,940
386	598.6	354.6	568.6	870.1	0	2	346	1	7	20	38	0	0	2	368,600	111,290	144,290	71,360	212.3	0	326,940
387	620.2	351.5	574.5	876.3	0	2	356	1	7	20	38	0	0	2	368,330	111,290	144,290	71,360	205.6	0	326,940
388	654.8	358.8	557.0	863.7	0	2	349	2	12	22	54	1	0	2	349,030	111,290	144,290	71,360	208.2	0	326,940
389	365.7	255.6	647.3	788.1	0	1	324	5	10	24	64	0	1	2	412,070	138,170	127,950	57,940	211.6	0	324,060
390	349.3	239.2	678.9	808.2	0	1	332	5	9	25	63	0	0	2	416,530	138,170	127,950	57,940	214.3	0	324,060
391	335.7	222.9	678.0	810.6	0	1	326	4	8	23	55	0	0	2	413,150	138,170	127,950	57,940	214.6	0	324,060
392	357.4	219.8	683.9	816.8	0	1	336	4	8	23	55	0	0	2	412,870	138,170	127,950	57,940	208.0	0	324,060
393	391.8	227.0	666.3	804.2	0	1	329	5	13	25	71	1	0	2	393,580	138,170	127,950	57,940	210.5	0	324,060
394	410.8	225.1	702.5	748.2	0	1	333	1	17	22	60	0	0	3	427,020	127,350	125,570	57,940	233.8	0	310,860
395	414.6	280.3	695.7	772.3	0	1	326	4	9	23	57	0	2	0	400,600	145,070	131,060	57,940	218.7	0	334,070
396	398.2	263.9	727.3	792.5	0	1	334	4	8	24	56	0	1	0	405,070	145,070	131,060	57,940	221.5	0	334,070
397	384.6	247.6	726.4	794.9	0	1	328	3	7	22	48	0	1	0	401,680	145,070	131,060	57,940	221.8	0	334,070
398	406.3	244.5	732.3	801.0	0	1	338	3	7	22	48	0	1	0	401,410	145,070	131,060	57,940	215.1	0	334,070
399	440.7	251.7	714.7	788.5	0	1	331	4	12	24	64	1	1	0	382,110	145,070	131,060	57,940	217.7	0	334,070
400	459.7	249.8	751.0	732.5	0	1	335	0	16	21	53	0	1	1	415,550	134,250	128,690	57,940	241.0	0	320,880
401	433.0	250.3	739.7	742.0	0	2	330	2	10	17	45	0	1	1	416,710	158,250	111,590	57,940	249.2	0	327,780
402	454.6	260.7	715.1	775.3	0	2	328	0	10	15	35	0	0	1	441,360	139,860	112,150	64,390	263.9	0	316,400
403	626.0	386.0	535.7	841.0	0	2	342	2	9	21	47	0	1	2	368,910	111,290	144,290	68,550	209.2	0	324,130
404	609.6	369.6	567.3	861.1	0	2	350	2	8	22	46	0	0	2	373,380	111,290	144,290	68,550	212.0	0	324,130
405	596.1	353.4	566.4	863.6	0	2	344	1	7	20	38	0	0	2	369,990	111,290	144,290	68,550	212.3	0	324,130
406	617.6	350.2	572.3	869.7	0	2	354	1	7	20	38	0	0	2	369,720	111,290	144,290	68,550	205.6	0	324,130
407	652.2	357.5	554.8	857.2	0	2	347	2	12	22	54	1	0	2	350,420	111,290	144,290	68,550	208.2	0	324,130
408	363.1	254.3	645.1	781.5	0	1	322	5	10	24	64	0	1	2	413,460	138,170	127,950	55,120	211.6	0	321,240
409	346.7	237.9	676.7	801.7	0	1	330	5	9	25	63	0	0	2	417,920	138,170	127,950	55,120	214.3	0	321,240
410	333.2	221.6	675.8	804.1	0	1	324	4	8	23	55	0	0	2	414,540	138,170	127,950	55,120	214.6	0	321,240
411	354.8	218.5	681.7	810.2	0	1	334	4	8	23	55	0	0	2	414,260	138,170	127,950	55,120	208.0	0	321,240
412	389.4	225.8	664.1	797.7	0	1	327	5	13	25	71	1	0	2	394,970	138,170	127,950	55,120	210.5	0	321,240
413	408.2	223.8	700.3	741.7	0	1	331	1	17	22	60	0	0	3	428,410	127,350	125,570	55,120	233.8	0	308,040
414	412.0	279.0	693.5	765.8	0	1	324	4	9	23	57	0	2	0	402,000	145,070	131,060	55,120	218.7	0	331,250
415	395.6	262.6	725.1	785.9	0	1	332	4	8	24	56	0	1	0	406,460	145,070	131,060	55,120	221.5	0	331,250
416	382.1	246.3	724.2	788.3	0	1	326	3	7	22	48	0	1	0	403,080	145,070	131,060	55,120	221.8	0	331,250
417	403.7	243.2	730.1	794.5	0	1	336	3	7	22	48	0	1	0	402,800	145,070	131,060	55,120	215.1	0	331,250
418	438.3	250.5	712.5	781.9	0	1	329	4	12	24	64	1	1	0	383,500	145,070	131,060	55,120	217.7	0	331,250
419	457.1	248.5	748.8	725.9	0	1	333	0	16	21	53	0	1	1	416,940	134,250	128,690	55,120	241.0	0	318,060
420	430.4	249.0	737.5	735.5	0	2	328	2	10	17	45	0	1	1	418,100	158,250	111,590	55,120	249.2	0	324,960
421	452.0	259.4	712.8	768.8	0	2	326	0	10	15	35	0	0	1	442,750	139,860	112,150	61,580	263.9	0	313,590
422	430.7	249.1	696.8	713.0	0	2	315	0	10	14	34	0	0	1	449,390	147,460	93,090	65,500	265.4	0	306,050
423	906.1	459.4	522.0	1008.3	0	1	346	2	15	17	55	0	2	5	227,590	126,440	150,950	63,280	236.8	0	340,670
424	889.8	443.1	553.6	1028.4	0	1	354	2	14	18	54	0	1	5	232,050	126,440	150,950	63,280	239.6	0	340,670
425	876.2	426.8	552.7	1030.8	0	1	348	1	13	16	46	0	1	5	228,670	126,440	150,950	63,280	239.9	0	340,670
426	897.8	423.7	558.6	1037.0	0	1	358	1	13	16	46	0	1	5	228,390	126,440	150,950	63,280	233.2	0	340,670
427	932.3	430.9	541.0	1024.4	0	1	351	2	18	18	62	1	1	5	209,100	126,440	150,950	63,280	235.8	0	340,670
428	643.3	327.7	631.3	948.8	0	0	326	5	16	20	72	0	2	5	272,130	153,330	134,610	49,850	239.1	0	337,790
429	626.9	311.3	662.9	968.9	0	0	334	5	15	21	71	0	1	5	276,590	153,330	134,610	49,850	241.9	0	337,790
430	613.4	295.1	662.0	971.3	0	0	328	4	14	19	63	0	1	5	273,210	153,330	134,610	49,850	242.2	0	337,790
431	634.9	291.9	667.9	977.5	0	0	338	4	14	19	63	0	1	5	272,940	153,330	134,610	49,850	235.5	0	337,790
432	669.5	299.2	650.3	965.0	0	0	331	5	19	21	79	1	1	5	253,640	153,320	134,610	49,850	238.1	0	337,780
433	688.3	297.2	686.6	909.0	0	0	335	1	23	18	68	0	1	6	287,080	142,500	132,230	49,850	261.4	0	324,580
434	692.2	352.4	679.8	933.1	0	0	328	4	15	19	65	0	3	3	260,670	160,220	137,720	49,850	246.3	0	347,790
435	675.8	336.0	711.4	953.2	0	0	336	4	14	20	64	0	2	3	265,130	160,220	137,720	49,850	249.1	0	347,790
436	662.3	319.8	710.5	955.6	0	0	330	3	13	18	56	0	2	3	261,750	160,220	137,720	49,850	249.4	0	347,790
437	683.8	316.6	716.4	961.8	0	0	340	3	13	18	56	0	2	3	261,470	160,220	137,720	49,850	242.7	0	347,790
438	718.4	323.9	698.8	949.2	0	0	333	4	18	20	72	1	2	3	242,180	160,220	137,720	49,850	245.3	0	347,790
439	737.2	321.9	735.0	893.2	0	0	337	0	22	17	61	0	2	4	275,620	149,400	135,350	49,850	268.6	0	334,600
440	710.5	322.4	723.7	902.7	0	1	332	2	16	13	53	0	2	4	276,780	173,400	118,250	49,85			

Appendix A - Route Data for All Routes
 Wolf Creek - Blackberry

Route	Sensitive Species Score (score)	Woodland in ROW (acres)	Cropland in ROW (acres)	Rangeland in ROW (acres)	NRHP Sites within 1/4 Mile (count)	Archaeological Sites within ROW (count)	Parcels Crossed (count)	Residences within 150 feet (count)	Residences within 300 feet (count)	Residences within 500 feet (count)	Residential Proximity Score (score)	Businesses within 300 feet (count)	Public Facilities within 500 feet (count)	Outbuildings in ROW (count)	Length Not Along Parcel Boundary (feet)	Low Karst Risk (feet)	Medium Karst Risk (feet)	High Karst Risk (feet)	Floodplain (acres)	Outbuildings in ROW in Eastern Spotted Skunk Habitat (count)	Total Length Karst (feet)
442	708.6	402.2	586.6	842.5	0	1	338	2	16	17	57	0	2	3	331,310	116,520	136,670	56,210	237.3	0	309,400
443	692.2	385.8	618.3	862.6	0	1	346	2	15	18	56	0	1	3	335,770	116,520	136,670	56,210	240.1	0	309,400
444	678.7	369.6	617.4	865.0	0	1	340	1	14	16	48	0	1	3	332,390	116,520	136,670	56,210	240.4	0	309,400
445	700.2	366.4	623.2	871.2	0	1	350	1	14	16	48	0	1	3	332,120	116,520	136,670	56,210	233.7	0	309,400
446	734.8	373.7	605.7	858.6	0	1	343	2	19	18	64	1	1	3	312,820	116,510	136,670	56,210	236.3	0	309,390
447	445.8	270.5	696.0	783.0	0	0	318	5	17	20	74	0	2	3	375,860	143,400	120,330	42,780	239.7	0	306,510
448	429.4	254.1	727.6	803.2	0	0	326	5	16	21	73	0	1	3	380,320	143,400	120,330	42,780	242.4	0	306,510
449	415.8	237.8	726.7	805.6	0	0	320	4	15	19	65	0	1	3	376,940	143,400	120,330	42,780	242.7	0	306,510
450	437.4	234.7	732.6	811.7	0	0	330	4	15	19	65	0	1	3	376,660	143,400	120,330	42,780	236.0	0	306,510
451	472.0	242.0	715.0	799.2	0	0	323	5	20	21	81	1	1	3	357,360	143,390	120,330	42,780	238.6	0	306,500
452	490.8	240.0	751.3	743.2	0	0	327	1	24	18	70	0	1	4	390,800	132,570	117,950	42,780	261.9	0	293,300
453	494.7	295.2	744.4	767.3	0	0	320	4	16	19	67	0	3	1	364,390	150,300	123,440	42,780	246.8	0	316,520
454	478.3	278.8	776.1	787.4	0	0	328	4	15	20	66	0	2	1	368,850	150,300	123,440	42,780	249.6	0	316,520
455	464.7	262.5	775.2	789.8	0	0	322	3	14	18	58	0	2	1	365,470	150,300	123,440	42,780	249.9	0	316,520
456	486.3	259.4	781.0	796.0	0	0	332	3	14	18	58	0	2	1	365,200	150,300	123,440	42,780	243.2	0	316,520
457	520.9	266.7	763.5	783.4	0	0	325	4	19	20	74	1	2	1	345,900	150,290	123,440	42,780	245.8	0	316,510
458	539.7	264.7	799.7	727.4	0	0	329	0	23	17	63	0	2	2	379,340	139,470	121,060	42,780	269.1	0	303,310
459	513.0	265.2	788.4	736.9	0	1	324	2	17	13	55	0	2	2	380,500	163,470	103,970	42,780	277.3	0	310,220
460	534.6	275.6	763.8	770.3	0	1	322	0	17	11	45	0	1	2	405,150	145,080	104,520	49,240	292.0	0	298,840
461	639.6	367.2	545.1	869.1	0	1	327	2	15	17	55	0	2	2	364,450	120,060	124,890	68,900	218.7	0	313,850
462	623.2	350.8	576.7	889.3	0	1	335	2	14	18	54	0	1	2	368,910	120,060	124,890	68,900	221.5	0	313,850
463	609.6	334.5	575.8	891.7	0	1	329	1	13	16	46	0	1	2	365,530	120,060	124,890	68,900	221.8	0	313,850
464	631.2	331.4	581.7	897.9	0	1	339	1	13	16	46	0	1	2	365,250	120,060	124,890	68,900	215.1	0	313,850
465	665.7	338.6	564.2	885.3	0	1	332	2	18	18	62	1	1	2	345,950	120,050	124,890	68,900	217.6	0	313,840
466	376.7	235.4	654.5	809.7	0	0	307	5	16	20	72	0	2	2	408,990	146,940	108,550	55,470	221.0	0	310,960
467	360.4	219.1	686.1	829.8	0	0	315	5	15	21	71	0	1	2	413,450	146,940	108,550	55,470	223.8	0	310,960
468	346.8	202.8	685.2	832.2	0	0	309	4	14	19	63	0	1	2	410,070	146,940	108,550	55,470	224.1	0	310,960
469	368.4	199.7	691.1	838.4	0	0	319	4	14	19	63	0	1	2	409,800	146,940	108,550	55,470	217.4	0	310,960
470	402.9	206.9	673.5	825.8	0	0	312	5	19	21	79	1	1	2	390,500	146,930	108,550	55,470	220.0	0	310,950
471	421.8	205.0	709.7	769.8	0	0	316	1	23	18	68	0	1	3	423,940	136,120	106,170	55,470	243.2	0	297,760
472	425.6	260.1	702.9	793.9	0	0	309	4	15	19	65	0	3	0	397,530	153,840	111,660	55,470	228.2	0	320,970
473	409.3	243.8	734.5	814.1	0	0	317	4	14	20	64	0	2	0	401,990	153,840	111,660	55,470	231.0	0	320,970
474	395.7	227.5	733.6	816.5	0	0	311	3	13	18	56	0	2	0	398,610	153,840	111,660	55,470	231.3	0	320,970
475	417.3	224.4	739.5	822.6	0	0	321	3	13	18	56	0	2	0	398,330	153,840	111,660	55,470	224.6	0	320,970
476	451.8	231.6	721.9	810.1	0	0	314	4	18	20	72	1	2	0	379,030	153,830	111,660	55,470	227.2	0	320,960
477	470.7	229.7	758.2	754.1	0	0	318	0	22	17	61	0	2	1	412,470	143,020	109,290	55,470	250.4	0	307,780
478	444.0	230.2	746.9	763.6	0	1	313	2	16	13	53	0	2	1	413,630	167,010	92,190	55,470	258.7	0	314,670
479	465.6	240.6	722.2	796.9	0	1	311	0	16	11	43	0	1	1	438,280	148,620	92,750	61,930	273.4	0	303,300
480	637.0	365.9	542.9	862.6	0	1	325	2	15	17	55	0	2	2	365,840	120,060	124,890	66,090	218.7	0	311,040
481	620.6	349.5	574.5	882.7	0	1	333	2	14	18	54	0	1	2	370,300	120,060	124,890	66,090	221.5	0	311,040
482	607.0	333.2	573.6	885.2	0	1	327	1	13	16	46	0	1	2	366,920	120,060	124,890	66,090	221.8	0	311,040
483	628.6	330.1	579.5	891.3	0	1	337	1	13	16	46	0	1	2	366,640	120,060	124,890	66,090	215.1	0	311,040
484	663.2	337.4	562.0	878.8	0	1	330	2	18	18	62	1	1	2	347,340	120,050	124,890	66,090	217.6	0	311,030
485	374.1	234.1	652.3	803.1	0	0	305	5	16	20	72	0	2	2	410,380	146,940	108,550	52,660	221.0	0	308,150
486	357.8	217.8	683.9	823.3	0	0	313	5	15	21	71	0	1	2	414,840	146,940	108,550	52,660	223.8	0	308,150
487	344.2	201.5	683.0	825.7	0	0	307	4	14	19	63	0	1	2	411,460	146,940	108,550	52,660	224.1	0	308,150
488	365.8	198.4	688.9	831.8	0	0	317	4	14	19	63	0	1	2	411,190	146,940	108,550	52,660	217.4	0	308,150
489	400.3	205.6	671.3	819.3	0	0	310	5	19	21	79	1	1	2	391,890	146,930	108,550	52,660	220.0	0	308,140
490	419.2	203.7	707.5	763.3	0	0	314	1	23	18	68	0	1	3	425,330	136,120	106,170	52,660	243.2	0	294,950
491	423.0	258.8	700.7	787.4	0	0	307	4	15	19	65	0	3	0	398,920	153,840	111,660	52,660	228.2	0	318,160
492	406.7	242.5	732.3	807.5	0	0	315	4	14	20	64	0	2	0	403,380	153,840	111,660	52,660	231.0	0	318,160
493	393.1	226.2	731.4	809.9	0	0	309	3	13	18	56	0	2	0	400,000	153,840	111,660	52,660	231.3	0	318,160
494	414.7	223.1	737.3	816.1	0	0	319	3	13	18	56	0	2	0	399,720	153,840	111,660	52,660	224.6	0	318,160
495	449.2	230.3	719.7	803.5	0	0	312	4	18	20	72	1	2	0	380,420	153,830	111,660	52,660	227.2	0	318,150
496	468.1	228.4	756.0	747.5	0	0	316	0	22	17	61	0	2	1	413,870	143,020	109,290	52,660	250.4	0	304,970
497	441.4	228.9	744.7	757.0	0	1	311	2	16	13	53	0	2	1	415,020	167,010	92,190	52,660	258.7	0	311,860
498	463.1	239.3	720.0	790.4	0	1	309	0	16	11	43	0	1	1	439,670	148,620	92,750	59,120	273.4	0	300,490
499	685.4	410.0	547.4	868.8	0	1	352	2	14	21	57	0	2	2	333,470	114,900	143,510	72,840	225.2	0	331,250
500	669.0	393.6	579.0	888.9	0	1	360	2	13	22	56	0	1	2	337,930	114,900	143,510	72,840	228.0	0	331,250
501	655.5	377.4	578.1	891.3	0	1	354	1	12	20	48	0	1	2	334,550	114,900	143,510	72,840	228.3	0	331,250
502	677.1	374.3	584.0	897.5	0	1	364	1	12	20	48	0	1	2	334,280	114,900	143,510	72,840	221.6	0	331,250
503	711.6	381.5	566.4	884.9	0	1	357	2	17	22	64	1	1	2	314,980	114,890	143,510	72,840			

Appendix A - Route Data for All Routes
Wolf Creek - Blackberry

Route	Sensitive Species Score (score)	Woodland in ROW (acres)	Cropland in ROW (acres)	Rangeland in ROW (acres)	NRHP Sites within 1/4 Mile (count)	Archaeological Sites within ROW (count)	Parcels Crossed (count)	Residences within 150 feet (count)	Residences within 300 feet (count)	Residences within 500 feet (count)	Residential Proximity Score (score)	Businesses within 300 feet (count)	Public Facilities within 500 feet (count)	Outbuildings in ROW (count)	Length Not Along Parcel Boundary (feet)	Low Karst Risk (feet)	Medium Karst Risk (feet)	High Karst Risk (feet)	Floodplain (acres)	Outbuildings in ROW in Eastern Spotted Skunk Habitat (count)	Total Length Karst (feet)
505	406.1	261.9	688.3	829.4	0	0	340	5	14	25	73	0	1	2	382,480	141,780	127,170	59,420	230.3	0	328,370
506	392.5	245.6	687.4	831.8	0	0	334	4	13	23	65	0	1	2	379,100	141,780	127,170	59,420	230.6	0	328,370
507	414.2	242.5	693.3	838.0	0	0	344	4	13	23	65	0	1	2	378,820	141,780	127,170	59,420	223.9	0	328,370
508	448.7	249.8	675.8	825.4	0	0	337	5	18	25	81	1	1	2	359,520	141,780	127,170	59,420	226.5	0	328,370
509	467.6	247.8	712.0	769.4	0	0	341	1	22	22	70	0	1	3	392,970	130,960	124,790	59,420	249.8	0	315,170
510	471.4	303.0	705.2	793.5	0	0	334	4	14	23	67	0	3	0	366,550	148,680	130,280	59,420	234.7	0	338,380
511	455.0	286.6	736.8	813.7	0	0	342	4	13	24	66	0	2	0	371,010	148,680	130,280	59,420	237.5	0	338,380
512	441.4	270.3	735.9	816.1	0	0	336	3	12	22	58	0	2	0	367,630	148,680	130,280	59,420	237.8	0	338,380
513	463.1	267.2	741.8	822.3	0	0	346	3	12	22	58	0	2	0	367,360	148,680	130,280	59,420	231.1	0	338,380
514	497.6	274.5	724.2	809.7	0	0	339	4	17	24	74	1	2	0	348,060	148,670	130,280	59,420	233.7	0	338,370
515	516.5	272.5	760.5	753.7	0	0	343	0	21	21	63	0	2	1	381,500	137,860	127,900	59,420	257.0	0	325,180
516	489.8	273.0	749.1	763.2	0	1	338	2	15	17	55	0	2	1	382,660	161,850	110,810	59,420	265.2	0	332,080
517	511.4	283.4	724.5	796.5	0	1	336	0	15	15	45	0	1	1	407,310	143,470	111,370	65,870	279.9	0	320,710
518	682.8	408.7	545.2	862.2	0	1	350	2	14	21	57	0	2	2	334,860	114,900	143,510	70,030	225.2	0	328,440
519	666.4	392.3	576.8	882.4	0	1	358	2	13	22	56	0	1	2	339,330	114,900	143,510	70,030	228.0	0	328,440
520	652.9	376.1	575.9	884.8	0	1	352	1	12	20	48	0	1	2	335,940	114,900	143,510	70,030	228.3	0	328,440
521	674.5	373.0	581.8	891.0	0	1	362	1	12	20	48	0	1	2	335,670	114,900	143,510	70,030	221.6	0	328,440
522	709.0	380.2	564.2	878.4	0	1	355	2	17	22	64	1	1	2	316,370	114,890	143,510	70,030	224.2	0	328,430
523	419.9	277.0	654.5	802.7	0	0	330	5	15	24	74	0	2	2	379,410	141,780	127,170	56,600	227.5	0	325,550
524	403.5	260.6	686.1	822.9	0	0	338	5	14	25	73	0	1	2	383,870	141,780	127,170	56,600	230.3	0	325,550
525	390.0	244.3	685.2	825.3	0	0	332	4	13	23	65	0	1	2	380,490	141,780	127,170	56,600	230.6	0	325,550
526	411.6	241.2	691.1	831.5	0	0	342	4	13	23	65	0	1	2	380,210	141,780	127,170	56,600	223.9	0	325,550
527	446.2	248.5	673.6	818.9	0	0	335	5	18	25	81	1	1	2	360,920	141,780	127,170	56,600	226.5	0	325,550
528	465.0	246.5	709.8	762.9	0	0	339	1	22	22	70	0	1	3	394,360	130,960	124,790	56,600	249.8	0	312,350
529	468.8	301.7	703.0	787.0	0	0	332	4	14	23	67	0	3	0	367,950	148,680	130,280	56,600	234.7	0	335,560
530	452.4	285.3	734.6	807.1	0	0	340	4	13	24	66	0	2	0	372,410	148,680	130,280	56,600	237.5	0	335,560
531	439.0	269.1	733.7	809.5	0	0	334	3	12	22	58	0	2	0	369,020	148,680	130,280	56,600	237.8	0	335,560
532	460.5	265.9	739.6	815.7	0	0	344	3	12	22	58	0	2	0	368,750	148,680	130,280	56,600	231.1	0	335,560
533	495.1	273.2	722.0	803.2	0	0	337	4	17	24	74	1	2	0	349,450	148,670	130,280	56,600	233.7	0	335,550
534	513.9	271.2	758.3	747.2	0	0	341	0	21	21	63	0	2	1	382,890	137,860	127,900	56,600	257.0	0	322,360
535	487.2	271.7	746.9	756.7	0	1	336	2	15	17	55	0	2	1	384,050	161,850	110,810	56,600	265.2	0	329,260
536	508.8	282.1	722.3	790.0	0	1	334	0	15	15	45	0	1	1	408,700	143,470	111,370	63,060	279.9	0	317,900
537	487.5	271.8	706.3	734.2	0	1	323	0	15	14	44	0	1	1	415,340	151,070	92,310	66,980	281.4	0	310,360
538	686.8	412.1	535.8	859.7	0	1	341	2	13	17	51	0	2	3	345,660	120,830	136,120	56,210	225.5	0	313,160
539	670.4	395.7	567.4	879.9	0	1	349	2	12	18	50	0	1	3	350,120	120,830	136,120	56,210	228.2	0	313,160
540	656.9	379.5	566.5	882.3	0	1	343	1	11	16	42	0	1	3	346,740	120,830	136,120	56,210	228.5	0	313,160
541	678.4	376.3	572.4	888.5	0	1	353	1	11	16	42	0	1	3	346,470	120,830	136,120	56,210	221.8	0	313,160
542	713.0	383.6	554.8	875.9	0	1	346	2	16	18	58	1	1	3	327,170	120,830	136,120	56,210	224.4	0	313,160
543	424.0	280.4	645.1	800.2	0	0	321	5	14	20	68	0	2	3	390,210	147,710	119,780	42,780	227.8	0	310,270
544	407.6	264.0	676.8	820.4	0	0	329	5	13	21	67	0	1	3	394,670	147,710	119,780	42,780	230.6	0	310,270
545	394.0	247.7	675.9	822.8	0	0	323	4	12	19	59	0	1	3	391,290	147,710	119,780	42,780	230.9	0	310,270
546	415.6	244.6	681.8	829.0	0	0	333	4	12	19	59	0	1	3	391,010	147,710	119,780	42,780	224.2	0	310,270
547	450.2	251.9	664.2	816.4	0	0	326	5	17	21	75	1	1	3	371,710	147,710	119,780	42,780	226.7	0	310,270
548	469.0	249.9	700.4	760.4	0	0	330	1	21	18	64	0	1	4	405,160	136,890	117,400	42,780	250.0	0	297,070
549	472.9	305.1	693.6	784.5	0	0	323	4	13	19	61	0	3	1	378,740	154,610	122,890	42,780	235.0	0	320,280
550	456.5	288.7	725.2	804.6	0	0	331	4	12	20	60	0	2	1	383,200	154,610	122,890	42,780	237.8	0	320,280
551	442.9	272.4	724.3	807.1	0	0	325	3	11	18	52	0	2	1	379,820	154,610	122,890	42,780	238.1	0	320,280
552	464.5	269.3	730.2	813.2	0	0	335	3	11	18	52	0	2	1	379,550	154,610	122,890	42,780	231.4	0	320,280
553	499.1	276.6	712.6	800.7	0	0	328	4	16	20	68	1	2	1	360,250	154,610	122,890	42,780	233.9	0	320,280
554	517.9	274.6	748.9	744.7	0	0	332	0	20	17	57	0	2	2	393,690	143,790	120,510	42,780	257.2	0	307,080
555	491.2	275.1	737.6	754.2	0	1	327	2	14	13	49	0	2	2	394,850	167,780	103,420	42,780	265.5	0	313,980
556	512.8	285.5	712.9	787.5	0	1	325	0	14	11	39	0	1	2	419,500	149,400	103,980	49,240	280.1	0	302,620
557	617.8	377.1	494.3	886.4	0	1	330	2	12	17	49	0	2	2	378,800	124,370	124,340	68,900	206.8	0	317,610
558	601.4	360.7	525.9	906.5	0	1	338	2	11	18	48	0	1	2	383,260	124,370	124,340	68,900	209.6	0	317,610
559	587.8	344.4	525.0	908.9	0	1	332	1	10	16	40	0	1	2	379,880	124,370	124,340	68,900	209.9	0	317,610
560	609.4	341.3	530.9	915.1	0	1	342	1	10	16	40	0	1	2	379,600	124,370	124,340	68,900	203.2	0	317,610
561	643.9	348.5	513.3	902.5	0	1	335	2	15	18	56	1	1	2	360,300	124,370	124,340	68,900	205.8	0	317,610
562	354.9	245.3	603.6	826.9	0	0	310	5	13	20	66	0	2	2	423,340	151,250	108,000	55,470	209.1	0	314,720
563	338.6	229.0	635.2	847.0	0	0	318	5	12	21	65	0	1	2	427,800	151,250	108,000	55,470	211.9	0	314,720
564	325.0	212.7	634.3	849.4	0	0	312	4	11	19	57	0	1	2	424,420	151,250	108,000	55,470	212.2	0	314,720
565	346.6	209.6	640.2	855.6	0	0	322	4	11	19	57	0	1	2	424,150	151,250	108,000	55,470	205.5	0	314,720
566	381.1	216.8	622.7	843.1	0	0	315	5	16	21	73	1	1	2	404,850	151,250	108,000				

Appendix A - Route Data for All Routes
 PUBLIC
 Wolf Creek - Blackberry

Route	Sensitive Species Score (score)	Woodland in ROW (acres)	Cropland in ROW (acres)	Rangeland in ROW (acres)	NRHP Sites within 1/4 Mile (count)	Archaeological Sites within ROW (count)	Parcels Crossed (count)	Residences within 150 feet (count)	Residences within 300 feet (count)	Residences within 500 feet (count)	Residential Proximity Score (score)	Businesses within 300 feet (count)	Public Facilities within 500 feet (count)	Outbuildings in ROW (count)	Length Not Along Parcel Boundary (feet)	Low Karst Risk (feet)	Medium Karst Risk (feet)	High Karst Risk (feet)	Floodplain (acres)	Outbuildings in ROW in Eastern Spotted Skunk Habitat (count)	Total Length Karst (feet)
568	403.8	270.0	652.1	811.2	0	0	312	4	12	19	59	0	3	0	411,880	158,150	111,110	55,470	216.3	0	324,730
569	387.5	253.7	683.7	831.3	0	0	320	4	11	20	58	0	2	0	416,340	158,150	111,110	55,470	219.1	0	324,730
570	373.9	237.4	682.8	833.7	0	0	314	3	10	18	50	0	2	0	412,960	158,150	111,110	55,470	219.4	0	324,730
571	395.5	234.3	688.7	839.9	0	0	324	3	10	18	50	0	2	0	412,680	158,150	111,110	55,470	212.7	0	324,730
572	430.0	241.5	671.1	827.3	0	0	317	4	15	20	66	1	2	0	393,380	158,150	111,110	55,470	215.3	0	324,730
573	448.9	239.6	707.3	771.3	0	0	321	0	19	17	55	0	2	1	426,830	147,330	108,740	55,470	238.6	0	311,540
574	422.2	240.1	696.0	780.8	0	1	316	2	13	13	47	0	2	1	427,980	171,320	91,640	55,470	246.8	0	318,430
575	443.8	250.5	671.4	814.2	0	1	314	0	13	11	37	0	1	1	452,630	152,940	92,200	61,930	261.5	0	307,070
576	615.2	375.8	492.1	879.8	0	1	328	2	12	17	49	0	2	2	380,190	124,370	124,340	66,090	206.8	0	314,800
577	598.8	359.4	523.7	900.0	0	1	336	2	11	18	48	0	1	2	384,650	124,370	124,340	66,090	209.6	0	314,800
578	585.2	343.1	522.8	902.4	0	1	330	1	10	16	40	0	1	2	381,270	124,370	124,340	66,090	209.9	0	314,800
579	606.8	340.0	528.7	908.6	0	1	340	1	10	16	40	0	1	2	380,990	124,370	124,340	66,090	203.2	0	314,800
580	641.4	347.3	511.1	896.0	0	1	333	2	15	18	56	1	1	2	361,690	124,370	124,340	66,090	205.8	0	314,800
581	352.3	244.0	601.4	820.4	0	0	308	5	13	20	66	0	2	2	424,730	151,250	108,000	52,660	209.1	0	311,910
582	336.0	227.7	633.0	840.5	0	0	316	5	12	21	65	0	1	2	429,190	151,250	108,000	52,660	211.9	0	311,910
583	322.4	211.4	632.1	842.9	0	0	310	4	11	19	57	0	1	2	425,810	151,250	108,000	52,660	212.2	0	311,910
584	344.0	208.3	638.0	849.1	0	0	320	4	11	19	57	0	1	2	425,540	151,250	108,000	52,660	205.5	0	311,910
585	378.5	215.5	620.5	836.5	0	0	313	5	16	21	73	1	1	2	406,240	151,250	108,000	52,660	208.1	0	311,910
586	397.4	213.6	656.7	780.5	0	0	317	1	20	18	62	0	1	3	439,680	140,430	105,620	52,660	231.4	0	298,710
587	401.2	268.7	649.9	804.6	0	0	310	4	12	19	59	0	3	0	413,270	158,150	111,110	52,660	216.3	0	321,920
588	384.9	252.4	681.5	824.8	0	0	318	4	11	20	58	0	2	0	417,730	158,150	111,110	52,660	219.1	0	321,920
589	371.3	236.1	680.6	827.2	0	0	312	3	10	18	50	0	2	0	414,350	158,150	111,110	52,660	219.4	0	321,920
590	392.9	233.0	686.5	833.3	0	0	322	3	10	18	50	0	2	0	414,070	158,150	111,110	52,660	212.7	0	321,920
591	427.4	240.2	668.9	820.8	0	0	315	4	15	20	66	1	2	0	394,770	158,150	111,110	52,660	215.3	0	321,920
592	446.3	238.3	705.1	764.8	0	0	319	0	19	17	55	0	2	1	428,220	147,330	108,740	52,660	238.6	0	308,730
593	419.6	238.8	693.8	774.3	0	1	314	2	13	13	47	0	2	1	429,380	171,320	91,640	52,660	246.8	0	315,620
594	441.3	249.2	669.2	807.6	0	1	312	0	13	11	37	0	1	1	454,030	152,940	92,200	59,120	261.5	0	304,260
595	663.6	419.9	496.6	886.0	0	1	355	2	11	21	51	0	2	2	347,820	119,210	142,960	72,840	213.3	0	335,010
596	647.2	403.5	528.2	906.1	0	1	363	2	10	22	50	0	1	2	352,280	119,210	142,960	72,840	216.1	0	335,010
597	633.7	387.3	527.3	908.6	0	1	357	1	9	20	42	0	1	2	348,900	119,210	142,960	72,840	216.4	0	335,010
598	655.3	384.2	533.2	914.7	0	1	367	1	9	20	42	0	1	2	348,630	119,210	142,960	72,840	209.7	0	335,010
599	689.8	391.4	515.6	902.2	0	1	360	2	14	22	58	1	1	2	329,330	119,210	142,960	72,840	212.3	0	335,010
600	400.7	288.2	605.9	826.5	0	0	335	5	12	24	68	0	2	2	392,370	146,100	126,620	59,420	215.7	0	332,140
601	384.3	271.8	637.5	846.7	0	0	343	5	11	25	67	0	1	2	396,830	146,100	126,620	59,420	218.5	0	332,140
602	370.7	255.5	636.6	849.1	0	0	337	4	10	23	59	0	1	2	393,450	146,100	126,620	59,420	218.7	0	332,140
603	392.4	252.4	642.5	855.2	0	0	347	4	10	23	59	0	1	2	393,170	146,100	126,620	59,420	212.1	0	332,140
604	426.9	259.7	624.9	842.7	0	0	340	5	15	25	75	1	1	2	373,880	146,090	126,620	59,420	214.6	0	332,130
605	445.8	257.7	661.2	786.7	0	0	344	1	19	22	64	0	1	3	407,320	135,270	124,240	59,420	237.9	0	318,930
606	449.6	312.9	654.4	810.8	0	0	337	4	11	23	61	0	3	0	380,900	152,990	129,730	59,420	222.9	0	342,140
607	433.2	296.5	686.0	830.9	0	0	345	4	10	24	60	0	2	0	385,370	152,990	129,730	59,420	225.6	0	342,140
608	419.6	280.2	685.1	833.3	0	0	339	3	9	22	52	0	2	0	381,980	152,990	129,730	59,420	225.9	0	342,140
609	441.3	277.1	691.0	839.5	0	0	349	3	9	22	52	0	2	0	381,710	152,990	129,730	59,420	219.2	0	342,140
610	475.8	284.4	673.4	826.9	0	0	342	4	14	24	68	1	2	0	362,410	152,990	129,730	59,420	221.8	0	342,140
611	494.7	282.4	709.6	770.9	0	0	346	0	18	21	57	0	2	1	395,850	142,170	127,350	59,420	245.1	0	328,940
612	468.0	282.9	698.3	780.4	0	1	341	2	12	17	49	0	2	1	397,010	166,170	110,260	59,420	253.3	0	335,850
613	489.6	293.3	673.7	813.8	0	1	339	0	12	15	39	0	1	1	421,660	147,780	110,820	65,870	268.0	0	324,470
614	661.0	418.6	494.4	879.5	0	1	353	2	11	21	51	0	2	2	349,220	119,210	142,960	70,030	213.3	0	332,200
615	644.6	402.2	526.0	899.6	0	1	361	2	10	22	50	0	1	2	353,680	119,210	142,960	70,030	216.1	0	332,200
616	631.1	386.0	525.1	902.0	0	1	355	1	9	20	42	0	1	2	350,290	119,210	142,960	70,030	216.4	0	332,200
617	652.7	382.9	531.0	908.2	0	1	365	1	9	20	42	0	1	2	350,020	119,210	142,960	70,030	209.7	0	332,200
618	687.2	390.1	513.4	895.6	0	1	358	2	14	22	58	1	1	2	330,720	119,210	142,960	70,030	212.3	0	332,200
619	398.1	286.9	603.7	820.0	0	0	333	5	12	24	68	0	2	2	393,760	146,100	126,620	56,600	215.7	0	329,320
620	381.7	270.5	635.3	840.1	0	0	341	5	11	25	67	0	1	2	398,220	146,100	126,620	56,600	218.5	0	329,320
621	368.2	254.2	634.4	842.5	0	0	335	4	10	23	59	0	1	2	394,840	146,100	126,620	56,600	218.7	0	329,320
622	389.8	251.1	640.3	848.7	0	0	345	4	10	23	59	0	1	2	394,560	146,100	126,620	56,600	212.1	0	329,320
623	424.4	258.4	622.7	836.1	0	0	338	5	15	25	75	1	1	2	375,270	146,090	126,620	56,600	214.6	0	329,310
624	443.2	256.4	659.0	780.1	0	0	342	1	19	22	64	0	1	3	408,710	135,270	124,240	56,600	237.9	0	316,110
625	447.0	311.6	652.2	804.2	0	0	335	4	11	23	61	0	3	0	382,300	152,990	129,730	56,600	222.9	0	339,320
626	430.6	295.2	683.8	824.4	0	0	343	4	10	24	60	0	2	0	386,760	152,990	129,730	56,600	225.6	0	339,320
627	417.1	278.9	682.9	826.8	0	0	337	3	9	22	52	0	2	0	383,380	152,990	129,730	56,600	225.9	0	339,320
628	438.7	275.8	688.8	833.0	0	0	347	3	9	22	52	0	2	0	383,100	152,990	129,730	56,600	219.2	0	339,320
629	473.3	283.1	671.2	820.4	0	0	340	4	14	24	68	1	2	0	363,800	152,990	129,730	56,600			

**Appendix A - Route Data for All Routes
Wolf Creek - Blackberry**

Route	Sensitive Species Score (score)	Woodland in ROW (acres)	Cropland in ROW (acres)	Rangeland in ROW (acres)	NRHP Sites within 1/4 Mile (count)	Archaeological Sites within ROW (count)	Parcels Crossed (count)	Residences within 150 feet (count)	Residences within 300 feet (count)	Residences within 500 feet (count)	Residential Proximity Score (score)	Businesses within 300 feet (count)	Public Facilities within 500 feet (count)	Outbuildings in ROW (count)	Length Not Along Parcel Boundary (feet)	Low Karst Risk (feet)	Medium Karst Risk (feet)	High Karst Risk (feet)	Floodplain (acres)	Outbuildings in ROW in Eastern Spotted Skunk Habitat (count)	Total Length Karst (feet)
631	465.4	281.6	696.1	773.9	0	1	339	2	12	17	49	0	2	1	398,400	166,170	110,260	56,600	253.3	0	333,030
632	487.0	292.0	671.5	807.2	0	1	337	0	12	15	39	0	1	1	423,050	147,780	110,820	63,060	268.0	0	321,660
633	465.7	281.7	655.5	751.5	0	1	326	0	12	14	38	0	1	1	429,690	155,380	91,760	66,980	269.5	0	314,120
634	682.3	410.0	560.9	859.0	0	1	340	2	11	15	45	0	2	3	347,780	115,230	146,800	56,260	224.3	0	318,290
635	665.9	393.6	592.6	879.2	0	1	348	2	10	16	44	0	1	3	352,240	115,230	146,800	56,260	227.1	0	318,290
636	652.4	377.4	591.7	881.6	0	1	342	1	9	14	36	0	1	3	348,860	115,230	146,800	56,260	227.4	0	318,290
637	673.9	374.2	597.5	887.8	0	1	352	1	9	14	36	0	1	3	348,590	115,230	146,800	56,260	220.7	0	318,290
638	708.5	381.5	580.0	875.2	0	1	345	2	14	16	52	1	1	3	329,290	115,230	146,800	56,260	223.3	0	318,290
639	419.5	278.3	670.3	799.6	0	0	320	5	12	18	62	0	2	3	392,330	142,120	130,470	42,830	226.6	0	315,420
640	403.1	261.9	701.9	819.7	0	0	328	5	11	19	61	0	1	3	396,790	142,120	130,470	42,830	229.4	0	315,420
641	389.5	245.6	701.0	822.1	0	0	322	4	10	17	53	0	1	3	393,410	142,120	130,470	42,830	229.7	0	315,420
642	411.1	242.5	706.9	828.3	0	0	332	4	10	17	53	0	1	3	393,130	142,120	130,470	42,830	223.0	0	315,420
643	445.7	249.8	689.3	815.7	0	0	325	5	15	19	69	1	1	3	373,830	142,110	130,470	42,830	225.6	0	315,410
644	464.5	247.8	725.5	759.7	0	0	329	1	19	16	58	0	1	4	407,270	131,290	128,090	42,830	248.9	0	302,210
645	468.4	303.0	718.7	783.8	0	0	322	4	11	17	55	0	3	1	380,860	149,020	133,580	42,830	233.8	0	325,430
646	452.0	286.6	750.3	804.0	0	0	330	4	10	18	54	0	2	1	385,320	149,020	133,580	42,830	236.6	0	325,430
647	438.4	270.3	749.4	806.4	0	0	324	3	9	16	46	0	2	1	381,940	149,020	133,580	42,830	236.9	0	325,430
648	460.0	267.2	755.3	812.5	0	0	334	3	9	16	46	0	2	1	381,670	149,020	133,580	42,830	230.2	0	325,430
649	494.6	274.5	737.8	800.0	0	0	327	4	14	18	62	1	2	1	362,370	149,010	133,580	42,830	232.8	0	325,420
650	513.4	272.5	774.0	744.0	0	0	331	0	18	15	51	0	2	2	395,810	138,190	131,200	42,830	256.1	0	312,220
651	486.7	273.0	762.7	753.5	0	1	326	2	12	11	43	0	2	2	396,970	162,190	114,110	42,830	264.3	0	319,130
652	508.3	283.4	738.1	786.8	0	1	324	0	12	9	33	0	1	2	421,620	143,800	114,660	49,290	279.0	0	307,750
653	613.3	375.0	519.4	885.7	0	1	329	2	10	15	43	0	2	2	380,920	118,780	135,030	68,950	205.7	0	322,760
654	596.9	358.6	551.0	905.8	0	1	337	2	9	16	42	0	1	2	385,380	118,780	135,030	68,950	208.4	0	322,760
655	583.3	342.3	550.1	908.2	0	1	331	1	8	14	34	0	1	2	382,000	118,780	135,030	68,950	208.7	0	322,760
656	604.9	339.2	556.0	914.4	0	1	341	1	8	14	34	0	1	2	381,720	118,780	135,030	68,950	202.0	0	322,760
657	639.4	346.4	538.4	901.8	0	1	334	2	13	16	50	1	1	2	362,420	118,770	135,030	68,950	204.6	0	322,750
658	350.4	243.2	628.7	826.2	0	0	309	5	11	18	60	0	2	2	425,460	145,660	118,690	55,520	208.0	0	319,870
659	334.1	226.9	660.4	846.3	0	0	317	5	10	19	59	0	1	2	429,920	145,660	118,690	55,520	210.8	0	319,870
660	320.5	210.6	659.5	848.8	0	0	311	4	9	17	51	0	1	2	426,540	145,660	118,690	55,520	211.1	0	319,870
661	342.1	207.5	665.3	854.9	0	0	321	4	9	17	51	0	1	2	426,270	145,660	118,690	55,520	204.4	0	319,870
662	376.6	214.7	647.8	842.4	0	0	314	5	14	19	67	1	1	2	406,970	145,650	118,690	55,520	206.9	0	319,860
663	395.5	212.8	684.0	786.4	0	0	318	1	18	16	56	0	1	3	440,410	134,830	116,310	55,520	230.2	0	306,660
664	399.3	267.9	677.2	810.5	0	0	311	4	10	17	53	0	3	0	414,000	152,560	121,800	55,520	215.2	0	329,880
665	383.0	251.6	708.8	830.6	0	0	319	4	9	18	52	0	2	0	418,460	152,560	121,800	55,520	218.0	0	329,880
666	369.4	235.3	707.9	833.0	0	0	313	3	8	16	44	0	2	0	415,080	152,560	121,800	55,520	218.3	0	329,880
667	391.0	232.2	713.8	839.2	0	0	323	3	8	16	44	0	2	0	414,800	152,560	121,800	55,520	211.6	0	329,880
668	425.5	239.4	696.2	826.6	0	0	316	4	13	18	60	1	2	0	395,500	152,550	121,800	55,520	214.1	0	329,870
669	444.4	237.5	732.5	770.6	0	0	320	0	17	15	49	0	2	1	428,940	141,730	119,420	55,520	237.4	0	316,670
670	417.7	238.0	721.2	780.1	0	1	315	2	11	11	41	0	2	1	430,100	165,730	102,330	55,520	245.7	0	323,580
671	439.3	248.4	696.5	813.5	0	1	313	0	11	9	31	0	1	1	454,750	147,340	102,890	61,980	260.3	0	312,210
672	610.7	373.7	517.2	879.2	0	1	327	2	10	15	43	0	2	2	382,310	118,780	135,030	66,130	205.7	0	319,940
673	594.3	357.3	548.8	899.3	0	1	335	2	9	16	42	0	1	2	386,770	118,780	135,030	66,130	208.4	0	319,940
674	580.7	341.0	547.9	901.7	0	1	329	1	8	14	34	0	1	2	383,390	118,780	135,030	66,130	208.7	0	319,940
675	602.3	337.9	553.8	907.9	0	1	339	1	8	14	34	0	1	2	383,110	118,780	135,030	66,130	202.0	0	319,940
676	636.9	345.2	536.2	895.3	0	1	332	2	13	16	50	1	1	2	363,810	118,770	135,030	66,130	204.6	0	319,930
677	347.8	241.9	626.5	819.7	0	0	307	5	11	18	60	0	2	2	426,850	145,660	118,690	52,710	208.0	0	317,060
678	331.5	225.6	658.2	839.8	0	0	315	5	10	19	59	0	1	2	431,310	145,660	118,690	52,710	210.8	0	317,060
679	317.9	209.3	657.3	842.2	0	0	309	4	9	17	51	0	1	2	427,930	145,660	118,690	52,710	211.1	0	317,060
680	339.5	206.2	663.1	848.4	0	0	319	4	9	17	51	0	1	2	427,660	145,660	118,690	52,710	204.4	0	317,060
681	374.0	213.4	645.6	835.8	0	0	312	5	14	19	67	1	1	2	408,360	145,650	118,690	52,710	206.9	0	317,050
682	392.9	211.5	681.8	779.8	0	0	316	1	18	16	56	0	1	3	441,800	134,830	116,310	52,710	230.2	0	303,850
683	396.7	266.6	675.0	803.9	0	0	309	4	10	17	53	0	3	0	415,390	152,560	121,800	52,710	215.2	0	327,070
684	380.4	250.3	706.6	824.1	0	0	317	4	9	18	52	0	2	0	419,850	152,560	121,800	52,710	218.0	0	327,070
685	366.8	234.0	705.7	826.5	0	0	311	3	8	16	44	0	2	0	416,470	152,560	121,800	52,710	218.3	0	327,070
686	388.4	230.9	711.6	832.6	0	0	321	3	8	16	44	0	2	0	416,190	152,560	121,800	52,710	211.6	0	327,070
687	422.9	238.1	694.0	820.1	0	0	314	4	13	18	60	1	2	0	396,890	152,550	121,800	52,710	214.1	0	327,060
688	441.8	236.2	730.3	764.1	0	0	318	0	17	15	49	0	2	1	430,340	141,730	119,420	52,710	237.4	0	313,860
689	415.1	236.7	719.0	773.6	0	1	313	2	11	11	41	0	2	1	431,490	165,730	102,330	52,710	245.7	0	320,770
690	436.8	247.1	694.3	806.9	0	1	311	0	11	9	31	0	1	1	456,140	147,340	102,890	59,170	260.3	0	309,400
691	656.8	415.5	522.7	878.7	0	1	356	2	9	18	44	0	2	2	351,390	113,130	153,400	71,360	213.7	0	337,890
692	640.5	399.2	554.3	898.9	0	1	364	2	8	19	43	0	1	2	355,850	113,130	153,400	71,360	216.4	0	

Appendix A - Route Data for All Routes
 Wolf Creek - Blackberry

Route	Sensitive Species Score (score)	Woodland in ROW (acres)	Cropland in ROW (acres)	Rangeland in ROW (acres)	NRHP Sites within 1/4 Mile (count)	Archaeological Sites within ROW (count)	Parcels Crossed (count)	Residences within 150 feet (count)	Residences within 300 feet (count)	Residences within 500 feet (count)	Residential Proximity Score (score)	Businesses within 300 feet (count)	Public Facilities within 500 feet (count)	Outbuildings in ROW (count)	Length Not Along Parcel Boundary (feet)	Low Karst Risk (feet)	Medium Karst Risk (feet)	High Karst Risk (feet)	Floodplain (acres)	Outbuildings in ROW in Eastern Spotted Skunk Habitat (count)	Total Length Karst (feet)
694	648.5	379.8	559.3	907.4	0	1	368	1	7	17	35	0	1	2	352,190	113,130	153,400	71,360	210.1	0	337,890
695	683.0	387.0	541.7	894.9	0	1	361	2	12	19	51	1	1	2	332,900	113,120	153,400	71,360	212.6	0	337,880
696	393.9	283.8	632.0	819.2	0	0	336	5	10	21	61	0	2	2	395,930	140,010	137,070	57,940	216.0	0	335,020
697	377.5	267.4	663.7	839.4	0	0	344	5	9	22	60	0	1	2	400,390	140,010	137,070	57,940	218.8	0	335,020
698	364.0	251.2	662.8	841.8	0	0	338	4	8	20	52	0	1	2	397,010	140,010	137,070	57,940	219.1	0	335,020
699	385.7	248.1	668.6	848.0	0	0	348	4	8	20	52	0	1	2	396,740	140,010	137,070	57,940	212.4	0	335,020
700	420.1	255.3	651.1	835.4	0	0	341	5	13	22	68	1	1	2	377,440	140,010	137,070	57,940	214.9	0	335,020
701	439.0	253.3	687.3	779.4	0	0	345	1	17	19	57	0	1	3	410,880	129,190	134,690	57,940	238.2	0	321,820
702	442.8	308.5	680.5	803.5	0	0	338	4	9	20	54	0	3	0	384,470	146,910	140,180	57,940	223.2	0	345,030
703	426.4	292.1	712.1	823.6	0	0	346	4	8	21	53	0	2	0	388,930	146,910	140,180	57,940	226.0	0	345,030
704	412.9	275.9	711.2	826.0	0	0	340	3	7	19	45	0	2	0	385,550	146,910	140,180	57,940	226.3	0	345,030
705	434.6	272.8	717.1	832.2	0	0	350	3	7	19	45	0	2	0	385,270	146,910	140,180	57,940	219.6	0	345,030
706	469.0	280.0	699.5	819.6	0	0	343	4	12	21	61	1	2	0	365,980	146,900	140,180	57,940	222.1	0	345,020
707	487.9	278.0	735.8	763.7	0	0	347	0	16	18	50	0	2	1	399,420	136,090	137,800	57,940	245.4	0	331,830
708	461.2	278.5	724.5	773.2	0	1	342	2	10	14	42	0	2	1	400,580	160,080	120,710	57,940	253.7	0	338,730
709	482.9	289.0	699.8	806.5	0	1	340	0	10	12	32	0	1	1	425,230	141,700	121,260	64,390	268.3	0	327,350
710	654.2	414.2	520.5	872.2	0	1	354	2	9	18	44	0	2	2	352,780	113,130	153,400	68,550	213.7	0	335,080
711	637.9	397.9	552.1	892.3	0	1	362	2	8	19	43	0	1	2	357,240	113,130	153,400	68,550	216.4	0	335,080
712	624.3	381.6	551.2	894.7	0	1	356	1	7	17	35	0	1	2	353,860	113,130	153,400	68,550	216.7	0	335,080
713	645.9	378.5	557.1	900.9	0	1	366	1	7	17	35	0	1	2	353,580	113,130	153,400	68,550	210.1	0	335,080
714	680.4	385.7	539.5	888.3	0	1	359	2	12	19	51	1	1	2	334,290	113,120	153,400	68,550	212.6	0	335,070
715	391.3	282.5	629.8	812.7	0	0	334	5	10	21	61	0	2	2	397,320	140,010	137,070	55,120	216.0	0	332,200
716	374.9	266.1	661.5	832.8	0	0	342	5	9	22	60	0	1	2	401,790	140,010	137,070	55,120	218.8	0	332,200
717	361.5	249.9	660.6	835.2	0	0	336	4	8	20	52	0	1	2	398,400	140,010	137,070	55,120	219.1	0	332,200
718	383.1	246.8	666.4	841.4	0	0	346	4	8	20	52	0	1	2	398,130	140,010	137,070	55,120	212.4	0	332,200
719	417.6	254.0	648.9	828.9	0	0	339	5	13	22	68	1	1	2	378,830	140,010	137,070	55,120	214.9	0	332,200
720	436.4	252.0	685.1	772.9	0	0	343	1	17	19	57	0	1	3	412,270	129,190	134,690	55,120	238.2	0	319,000
721	440.2	307.2	678.3	797.0	0	0	336	4	9	20	54	0	3	0	385,860	146,910	140,180	55,120	223.2	0	342,210
722	423.8	290.8	709.9	817.1	0	0	344	4	8	21	53	0	2	0	390,320	146,910	140,180	55,120	226.0	0	342,210
723	410.4	274.6	709.0	819.5	0	0	338	3	7	19	45	0	2	0	386,940	146,910	140,180	55,120	226.3	0	342,210
724	432.0	271.5	714.9	825.7	0	0	348	3	7	19	45	0	2	0	386,670	146,910	140,180	55,120	219.6	0	342,210
725	466.5	278.7	697.3	813.1	0	0	341	4	12	21	61	1	2	0	367,370	146,900	140,180	55,120	222.1	0	342,200
726	485.3	276.7	733.6	757.1	0	0	345	0	16	18	50	0	2	1	400,810	136,090	137,800	55,120	245.4	0	329,010
727	458.6	277.2	722.3	766.6	0	1	340	2	10	14	42	0	2	1	401,970	160,080	120,710	55,120	253.7	0	335,910
728	480.3	287.7	697.6	800.0	0	1	338	0	10	12	32	0	1	1	426,620	141,700	121,260	61,580	268.3	0	324,540
729	458.9	277.3	681.6	744.2	0	1	327	0	10	11	31	0	1	1	433,260	149,300	102,210	65,500	269.8	0	317,010
932.3	459.4	814.9	1053.5	0	2	368	5	24	28	84	1	3	6	472,280	173,400	153,400	72,840	292	0	347,790	
489.7	272.7	661.3	827.1	0.0	0.8	325.3	2.7	13.4	19.4	57.0	0.2	0.9	1.8	386,360.6	139,760.8	121,529.9	56,925.8	225.6	0.0	318,216.4	
289.7	163.3	490.2	696.2	0	0	293	0	7	8	31	0	0	0	209,100	111,290	82,530	42,780	191	0	282,360	
126.6	62.1	72.8	61.4	0.0	0.7	15.6	1.6	3.6	3.8	10.8	0.4	0.8	1.3	44,892.5	14,919.4	14,634.4	8,048.6	19.1	0.0	13,062.3	

APPENDIX B – WEIGHTED SCORES

Appendix B - Sorted, Weighted Route Scores for All Evaluated Routes
Wolf Creek - Blackberry

Weights	6	4	8	4	2	3	5	9	3	2	10	1	1	3	1	
Route	Total Length	Angles Over 30 Degrees (count)	Length Not Along Existing Transmission Line	Length Through Previously Mined Area	Transmission Line Crossings	Stream Crossings	Wetlands in ROW	Sensitive Species Score	Cropland in ROW	Archaeological Sites within ROW	Residential Proximity Score	Public Facilities within 500 feet	Length Not Along Parcel Boundary	Floodplain in ROW	Total Length Karst	Total
65	-9.31	-3.98	-12.49	-0.15	-2.82	0.83	-5.67	-12.45	-0.42	-2.30	0.89	-1.22	1.06	-3.96	-0.83	-52.83
68	-11.70	-7.74	-16.24	-0.09	-0.17	-0.41	-10.19	-7.12	0.59	-2.30	5.51	-1.22	1.37	-0.96	-1.85	-52.52
76	-7.18	-5.23	-4.10	-10.50	1.16	-1.45	-7.32	-4.00	1.11	0.59	-17.60	-1.22	1.69	3.78	-1.42	-51.70
75	-8.86	-6.49	1.23	-10.50	1.16	-5.19	-13.38	-5.54	2.13	0.59	-8.35	0.07	1.14	1.47	-0.55	-51.08
57	-6.50	-3.98	-3.93	-10.50	1.16	-1.45	-6.99	-3.82	1.20	0.59	-17.60	-1.22	1.66	3.78	-1.21	-48.81
66	-8.59	-3.98	-12.04	-0.10	-0.17	-0.21	-5.12	-10.92	-0.18	-2.30	0.89	-1.22	1.05	-5.02	-0.83	-48.73
372	-8.69	-3.98	-13.06	-0.15	-2.82	1.46	-0.94	-14.21	0.46	0.59	-2.81	-1.22	1.29	-2.99	-0.93	-47.99
375	-11.08	-7.74	-16.81	-0.09	-0.17	0.21	-5.45	-8.89	1.47	0.59	1.81	-1.22	1.59	0.03	-1.94	-47.68
46	-8.64	-0.21	-12.32	-0.15	-2.82	0.83	-5.34	-12.27	-0.33	-2.30	0.89	-1.22	1.03	-3.96	-0.62	-47.42
49	-11.03	-3.98	-16.07	-0.09	-0.17	-0.41	-9.86	-6.94	0.68	-2.30	5.51	-1.22	1.34	-0.96	-1.63	-47.12
383	-6.56	-5.23	-4.66	-10.50	1.16	-0.83	-2.59	-5.77	1.99	3.48	-21.30	-1.22	1.91	4.76	-1.51	-46.87
115	-9.52	-5.23	5.65	-10.50	-1.49	-3.74	-8.21	-2.27	0.54	0.59	-16.67	-1.22	1.15	5.04	-0.67	-46.54
382	-8.24	-6.49	0.67	-10.50	1.16	-4.57	-8.65	-7.31	3.00	3.48	-12.05	0.07	1.36	2.45	-0.64	-46.25
56	-8.18	-2.72	1.40	-10.50	1.16	-5.19	-13.05	-5.36	2.22	0.59	-8.35	0.07	1.11	1.47	-0.34	-45.67
422	-9.44	-6.49	4.74	-10.50	-1.49	-3.32	-3.69	-4.19	1.46	3.48	-21.30	-1.22	1.40	6.25	-0.93	-45.24
276	-10.01	-6.49	-13.88	-0.15	-2.82	1.67	1.71	-13.89	-0.57	0.59	2.74	-1.22	1.24	-2.80	-1.32	-45.22
279	-12.40	-10.26	-17.63	-0.09	-0.17	0.42	-2.70	-8.57	0.44	0.59	7.36	-1.22	1.55	0.20	-2.33	-44.81
287	-7.87	-7.74	-5.49	-10.50	1.16	-0.62	0.16	-5.45	0.95	3.48	-15.75	-1.22	1.87	4.94	-1.91	-43.99
364	-5.88	-3.98	-4.49	-10.50	1.16	-0.83	-2.26	-5.59	2.08	3.48	-21.30	-1.22	1.88	4.76	-1.30	-43.98
373	-7.97	-3.98	-12.60	-0.10	-0.17	0.42	-0.39	-12.69	0.70	0.59	-2.81	-1.22	1.28	-4.04	-0.93	-43.90
286	-9.55	-9.00	-0.16	-10.50	1.16	-4.36	-5.89	-6.99	1.97	3.48	-6.51	0.07	1.32	2.63	-1.04	-43.36
47	-7.92	-0.21	-11.87	-0.10	-0.17	-0.21	-4.79	-10.73	-0.08	-2.30	0.89	-1.22	1.02	-5.02	-0.62	-43.32
353	-8.01	-0.21	-12.88	-0.15	-2.82	1.46	-0.61	-14.04	0.55	0.59	-2.81	-1.22	1.25	-2.99	-0.71	-42.59
356	-10.41	-3.98	-16.63	-0.09	-0.17	0.21	-5.12	-8.71	1.56	0.59	1.81	-1.22	1.56	0.03	-1.72	-42.27
679	-5.49	2.30	-13.67	-0.15	-1.49	1.87	-3.36	-12.21	-0.16	-2.30	-5.58	0.07	0.93	-2.28	-0.09	-41.62
682	-7.88	-1.46	-17.43	-0.09	1.16	0.63	-7.76	-6.88	0.84	-2.30	-0.96	0.07	1.23	0.72	-1.10	-41.21
268	-7.20	-6.49	-5.32	-10.50	1.16	-0.62	0.49	-5.27	1.04	3.48	-15.75	-1.22	1.84	4.94	-1.69	-41.10
277	-9.29	-6.49	-13.43	-0.10	-0.17	0.63	2.37	-12.37	-0.33	0.59	2.74	-1.22	1.23	-3.85	-1.32	-41.01
363	-7.56	-2.72	0.84	-10.50	1.16	-4.57	-8.32	-7.13	3.09	3.48	-12.05	0.07	1.33	2.45	-0.43	-40.84
690	-3.36	1.05	-5.28	-10.50	2.49	-0.41	-4.90	-3.76	1.36	0.59	-24.07	0.07	1.55	5.45	-0.67	-40.40
257	-9.33	-2.72	-13.71	-0.15	-2.82	1.67	2.04	-13.72	-0.48	0.59	2.74	-1.22	1.21	-2.80	-1.11	-39.82
689	-5.04	-0.21	0.05	-10.50	2.49	-4.15	-10.96	-5.30	2.38	0.59	-14.83	1.37	1.01	3.15	0.20	-39.76
260	-11.72	-6.49	-17.46	-0.09	-0.17	0.42	-2.37	-8.39	0.53	0.59	7.36	-1.22	1.52	0.20	-2.12	-39.40
326	-10.21	-7.74	4.26	-10.50	-1.49	-2.91	-0.72	-3.71	0.39	3.48	-14.83	-1.22	1.32	6.20	-1.15	-38.82
729	-6.25	-0.21	4.12	-10.50	-0.17	-2.91	-6.00	-2.19	0.84	0.59	-24.07	0.07	1.04	6.94	-0.09	-38.77
583	-6.81	-0.21	-14.50	-0.15	-1.49	2.08	-0.61	-11.89	-1.20	-2.30	-0.03	0.07	0.88	-2.11	-0.48	-38.76
354	-7.29	-0.21	-12.43	-0.10	-0.17	0.42	-0.06	-12.50	0.79	0.59	-2.81	-1.22	1.25	-4.04	-0.71	-38.49
586	-9.20	-3.98	-18.25	-0.09	1.16	0.83	-5.01	-6.56	-0.19	-2.30	4.59	0.07	1.19	0.91	-1.49	-38.32
267	-8.88	-5.23	0.01	-10.50	1.16	-4.36	-5.56	-6.81	2.06	3.48	-6.51	0.07	1.29	2.63	-0.82	-37.96
594	-4.68	-1.46	-6.11	-10.50	2.49	-0.21	-2.26	-3.44	0.33	0.59	-18.52	0.07	1.51	5.64	-1.07	-37.62
671	-2.69	2.30	-5.11	-10.50	2.49	-0.41	-4.57	-3.58	1.45	0.59	-24.07	0.07	1.52	5.45	-0.46	-37.51
680	-4.77	2.30	-13.22	-0.10	1.16	0.83	-2.70	-10.67	0.07	-2.30	-5.58	0.07	0.92	-3.34	-0.09	-37.41
63	-8.12	-7.74	-11.75	2.81	-2.82	0.42	-0.50	-10.32	-1.68	-2.30	9.21	0.07	1.04	-4.45	-0.83	-36.97
593	-6.35	-2.72	-0.78	-10.50	2.49	-3.95	-8.21	-4.98	1.34	0.59	-9.28	1.37	0.96	3.33	-0.20	-36.90

Appendix B - Sorted, Weighted Route Scores for All Evaluated Routes
Wolf Creek - Blackberry

Weights	6	4	8	4	2	3	5	9	3	2	10	1	1	3	1	
Route	Total Length	Angles Over 30 Degrees (count)	Length Not Along Existing Transmission Line	Length Through Previously Mined Area	Transmission Line Crossings	Stream Crossings	Wetlands in ROW	Sensitive Species Score	Cropland in ROW	Archaeological Sites within ROW	Residential Proximity Score	Public Facilities within 500 feet	Length Not Along Parcel Boundary	Floodplain in ROW	Total Length Karst	Total
71	-5.40	-2.72	1.15	-0.15	-0.17	-4.15	-7.98	-8.98	1.58	-2.30	-5.58	0.07	0.81	-2.83	-0.07	-36.73
660	-4.82	6.07	-13.50	-0.15	-1.49	1.87	-3.03	-12.03	-0.07	-2.30	-5.58	0.07	0.90	-2.28	0.13	-36.22
663	-7.21	2.30	-17.25	-0.09	1.16	0.63	-7.43	-6.69	0.93	-2.30	-0.96	0.07	1.20	0.72	-0.88	-35.80
258	-8.61	-2.72	-13.26	-0.10	-0.17	0.63	2.70	-12.18	-0.24	0.59	2.74	-1.22	1.20	-3.85	-1.11	-35.61
67	-9.63	-6.49	-12.69	0.54	-0.17	-0.62	-4.35	-8.46	-0.90	-2.30	15.68	-1.22	0.62	-4.61	-0.84	-35.43
575	-4.00	-0.21	-5.94	-10.50	2.49	-0.21	-1.93	-3.26	0.42	0.59	-18.52	0.07	1.48	5.64	-0.85	-34.74
584	-6.09	-0.21	-14.05	-0.10	1.16	1.04	-0.06	-10.35	-0.96	-2.30	-0.03	0.07	0.87	-3.16	-0.48	-34.65
670	-4.36	3.56	0.22	-10.50	2.49	-4.15	-10.63	-5.12	2.47	0.59	-14.83	1.37	0.97	3.15	0.41	-34.36
74	-7.80	-3.98	-2.60	-0.09	2.49	-5.40	-12.39	-3.65	2.59	-2.30	-0.96	0.07	1.11	0.17	-1.08	-33.80
564	-6.13	3.56	-14.33	-0.15	-1.49	2.08	-0.28	-11.71	-1.11	-2.30	-0.03	0.07	0.85	-2.11	-0.27	-33.35
64	-6.21	-5.23	-10.55	1.60	-2.82	0.63	0.05	-11.48	-0.38	-2.30	8.29	-1.22	1.14	-4.01	-0.83	-33.33
567	-8.52	-0.21	-18.08	-0.09	1.16	0.83	-4.68	-6.37	-0.10	-2.30	4.59	0.07	1.16	0.91	-1.28	-32.92
72	-4.68	-2.72	1.60	-0.10	2.49	-5.19	-7.43	-7.44	1.82	-2.30	-5.58	0.07	0.80	-3.89	-0.07	-32.63
633	-7.02	-1.46	3.64	-10.50	-0.17	-2.49	-3.14	-1.70	-0.24	0.59	-17.60	0.07	0.97	6.89	-0.31	-32.47
370	-7.50	-7.74	-12.31	2.81	-2.82	1.04	4.24	-12.09	-0.80	0.59	5.51	0.07	1.26	-3.46	-0.93	-32.12
103	-5.83	-1.46	-5.69	-0.15	-2.82	1.46	-5.23	-9.19	-0.33	-2.30	2.74	-1.22	0.37	-2.94	0.50	-32.09
661	-4.10	6.07	-13.05	-0.10	1.16	0.83	-2.37	-10.49	0.16	-2.30	-5.58	0.07	0.89	-3.34	0.13	-32.01
378	-4.78	-2.72	0.59	-0.15	-0.17	-3.53	-3.25	-10.74	2.45	0.59	-9.28	0.07	1.03	-1.86	-0.16	-31.89
106	-8.22	-5.23	-9.44	-0.09	-0.17	0.21	-9.64	-3.87	0.69	-2.30	7.36	-1.22	0.68	0.07	-0.51	-31.66
44	-7.45	-3.98	-11.57	2.81	-2.82	0.42	-0.17	-10.14	-1.59	-2.30	9.21	0.07	1.01	-4.45	-0.62	-31.57
574	-5.68	1.05	-0.61	-10.50	2.49	-3.95	-7.87	-4.80	1.43	0.59	-9.28	1.37	0.93	3.33	0.02	-31.49
52	-4.73	1.05	1.33	-0.15	-0.17	-4.15	-7.65	-8.79	1.67	-2.30	-5.58	0.07	0.77	-2.83	0.15	-31.32
114	-3.70	-2.72	2.70	-10.50	1.16	-0.83	-6.88	-0.75	1.20	0.59	-15.75	-1.22	1.00	4.80	-0.09	-30.98
410	-5.75	-2.72	-6.59	-0.15	-2.82	1.87	-0.72	-11.12	0.60	0.59	-1.88	-1.22	0.63	-1.73	0.23	-30.79
374	-9.01	-6.49	-13.26	0.54	-0.17	0.00	0.38	-10.23	-0.02	0.59	11.98	-1.22	0.85	-3.63	-0.93	-30.59
95	-3.02	-3.98	2.88	-10.50	1.16	-0.83	-6.44	-0.57	1.29	0.59	-15.75	-1.22	0.97	4.80	0.13	-30.48
413	-8.14	-6.49	-10.34	-0.09	-0.17	0.63	-5.12	-5.79	1.61	0.59	2.74	-1.22	0.94	1.28	-0.78	-30.36
113	-5.38	-3.98	8.04	-10.50	1.16	-4.57	-12.83	-2.29	2.22	0.59	-6.51	0.07	0.45	2.49	0.78	-30.24
48	-8.96	-2.72	-12.52	0.54	-0.17	-0.62	-4.02	-8.28	-0.81	-2.30	15.68	-1.22	0.59	-4.61	-0.62	-30.03
180	-8.25	-3.98	-12.78	-0.15	-2.82	3.12	-0.06	-12.34	1.52	0.59	8.29	-1.22	0.92	-0.93	-1.61	-29.71
421	-3.62	-3.98	1.80	-10.50	1.16	-0.41	-2.37	-2.68	2.12	3.48	-20.37	-1.22	1.26	6.01	-0.35	-29.67
183	-10.65	-7.74	-16.53	-0.09	-0.17	1.87	-4.46	-7.02	2.53	0.59	12.91	-1.22	1.23	2.07	-2.62	-29.30
402	-2.95	-5.23	1.97	-10.50	1.16	-0.41	-2.04	-2.49	2.22	3.48	-20.37	-1.22	1.23	6.01	-0.14	-29.28
274	-8.82	-10.26	-13.13	2.81	-2.82	1.25	6.99	-11.77	-1.84	0.59	11.06	0.07	1.21	-3.29	-1.32	-29.25
565	-5.42	3.56	-13.88	-0.10	1.16	1.04	0.27	-10.17	-0.87	-2.30	-0.03	0.07	0.84	-3.16	-0.27	-29.25
84	-5.15	-0.21	-5.51	-0.15	-2.82	1.46	-4.90	-9.02	-0.23	-2.30	2.74	-1.22	0.34	-2.94	0.71	-29.21
282	-6.10	-5.23	-0.24	-0.15	-0.17	-3.32	-0.50	-10.42	1.42	0.59	-3.73	0.07	0.98	-1.67	-0.55	-29.01
381	-7.17	-3.98	-3.16	-0.09	2.49	-4.78	-7.65	-5.41	3.47	0.59	-4.66	0.07	1.34	1.16	-1.17	-28.96
420	-5.30	-5.23	7.13	-10.50	1.16	-4.15	-8.32	-4.21	3.14	3.48	-11.13	0.07	0.71	3.70	0.52	-28.93
87	-7.54	-3.98	-9.26	-0.09	-0.17	0.21	-9.31	-3.68	0.78	-2.30	7.36	-1.22	0.65	0.07	-0.30	-28.77
191	-6.12	-5.23	-4.39	-10.50	1.16	0.83	-1.71	-3.89	3.05	3.48	-10.20	-1.22	1.55	6.80	-2.19	-28.59
371	-5.59	-5.23	-11.11	1.60	-2.82	1.25	4.79	-13.25	0.50	0.59	4.59	-1.22	1.36	-3.04	-0.93	-28.50
38	-2.38	-5.23	-1.42	-10.50	1.16	1.67	-5.45	1.08	2.91	0.59	-15.75	-1.22	0.92	6.70	-1.55	-28.47
55	-7.12	-0.21	-2.42	-0.09	2.49	-5.40	-12.06	-3.46	2.68	-2.30	-0.96	0.07	1.08	0.17	-0.86	-28.40

Appendix B - Sorted, Weighted Route Scores for All Evaluated Routes
Wolf Creek - Blackberry

Weights	6	4	8	4	2	3	5	9	3	2	10	1	1	3	1	
Route	Total Length	Angles Over 30 Degrees (count)	Length Not Along Existing Transmission Line	Length Through Previously Mined Area	Transmission Line Crossings	Stream Crossings	Wetlands in ROW	Sensitive Species Score	Cropland in ROW	Archaeological Sites within ROW	Residential Proximity Score	Public Facilities within 500 feet	Length Not Along Parcel Boundary	Floodplain in ROW	Total Length Karst	Total
104	-5.11	-1.46	-5.23	-0.10	-0.17	0.42	-4.68	-7.66	-0.08	-2.30	2.74	-1.22	0.36	-4.00	0.50	-28.00
45	-5.54	-1.46	-10.37	1.60	-2.82	0.63	0.38	-11.30	-0.29	-2.30	8.29	-1.22	1.10	-4.01	-0.62	-27.93
391	-5.08	-1.46	-6.42	-0.15	-2.82	1.87	-0.39	-10.94	0.69	0.59	-1.88	-1.22	0.60	-1.73	0.45	-27.90
190	-7.80	-6.49	0.94	-10.50	1.16	-2.91	-7.65	-5.44	4.06	3.48	-0.96	0.07	1.00	4.50	-1.32	-27.86
278	-10.32	-9.00	-14.08	0.54	-0.17	0.21	3.14	-9.91	-1.05	0.59	17.53	-1.22	0.80	-3.45	-1.32	-27.71
379	-4.06	-2.72	1.04	-0.10	2.49	-4.57	-2.59	-9.21	2.70	0.59	-9.28	0.07	1.02	-2.91	-0.16	-27.69
394	-7.47	-5.23	-10.17	-0.09	-0.17	0.63	-4.79	-5.61	1.70	0.59	2.74	-1.22	0.91	1.28	-0.56	-27.47
94	-4.70	-2.72	8.21	-10.50	1.16	-4.57	-12.50	-2.10	2.31	0.59	-6.51	0.07	0.42	2.49	1.00	-27.35
53	-4.01	1.05	1.78	-0.10	2.49	-5.19	-6.99	-7.26	1.91	-2.30	-5.58	0.07	0.77	-3.89	0.15	-27.12
27	-4.51	-1.46	-9.81	-0.15	-2.82	3.95	-3.80	-7.36	1.38	-2.30	2.74	-1.22	0.29	-1.04	-0.96	-27.08
30	-6.90	-5.23	-13.56	-0.09	-0.17	2.71	-8.32	-2.03	2.39	-2.30	7.36	-1.22	0.60	1.97	-1.97	-26.76
351	-6.82	-3.98	-12.14	2.81	-2.82	1.04	4.57	-11.90	-0.71	0.59	5.51	0.07	1.23	-3.46	-0.71	-26.71
411	-5.03	-2.72	-6.14	-0.10	-0.17	0.83	-0.17	-9.59	0.84	0.59	-1.88	-1.22	0.62	-2.77	0.23	-26.67
359	-4.10	1.05	0.76	-0.15	-0.17	-3.53	-2.92	-10.56	2.55	0.59	-9.28	0.07	1.00	-1.86	0.05	-26.50
285	-8.49	-6.49	-3.98	-0.09	2.49	-4.57	-4.90	-5.10	2.43	0.59	0.89	0.07	1.29	1.33	-1.57	-26.09
401	-4.62	-3.98	7.31	-10.50	1.16	-4.15	-7.98	-4.03	3.23	3.48	-11.13	0.07	0.68	3.70	0.73	-26.03
487	-5.06	-0.21	-13.40	-0.15	-1.49	3.54	-2.48	-10.34	0.89	-2.30	5.51	0.07	0.56	-0.24	-0.77	-25.87
172	-5.45	-3.98	-4.22	-10.50	1.16	0.83	-1.38	-3.72	3.14	3.48	-10.20	-1.22	1.52	6.80	-1.98	-25.72
677	-4.30	-1.46	-12.93	2.81	-1.49	1.46	1.93	-10.08	-1.43	-2.30	2.74	1.37	0.90	-2.77	-0.09	-25.66
275	-6.90	-7.74	-11.93	1.60	-2.82	1.46	7.54	-12.93	-0.54	0.59	10.13	-1.22	1.31	-2.85	-1.32	-25.62
181	-7.54	-3.98	-12.33	-0.10	-0.17	2.08	0.49	-10.81	1.76	0.59	8.29	-1.22	0.91	-1.98	-1.61	-25.61
490	-7.45	-3.98	-17.15	-0.09	1.16	2.29	-6.88	-5.01	1.90	-2.30	10.13	0.07	0.87	2.76	-1.78	-25.45
685	-1.58	3.56	-0.03	-0.15	1.16	-3.12	-5.56	-8.73	1.83	-2.30	-12.05	1.37	0.67	-1.15	0.68	-25.41
37	-4.06	-3.98	3.91	-10.50	1.16	-2.08	-11.51	-0.45	3.92	0.59	-6.51	0.07	0.37	4.39	-0.68	-25.33
355	-8.33	-2.72	-13.08	0.54	-0.17	0.00	0.71	-10.04	0.07	0.59	11.98	-1.22	0.82	-3.63	-0.71	-25.19
85	-4.43	-0.21	-5.06	-0.10	-0.17	0.42	-4.35	-7.48	0.01	-2.30	2.74	-1.22	0.33	-4.00	0.71	-25.10
283	-5.38	-5.23	0.22	-0.10	2.49	-4.36	0.05	-8.89	1.66	0.59	-3.73	0.07	0.98	-2.72	-0.55	-24.91
498	-2.92	-1.46	-5.01	-10.50	2.49	1.25	-4.02	-1.89	2.42	0.59	-12.98	0.07	1.19	7.50	-1.36	-24.63
314	-6.52	-3.98	-7.07	-0.15	-2.82	2.29	2.26	-10.64	-0.48	0.59	4.59	-1.22	0.55	-1.78	0.01	-24.38
161	-7.58	-0.21	-12.61	-0.15	-2.82	3.12	0.27	-12.16	1.61	0.59	8.29	-1.22	0.89	-0.93	-1.39	-24.31
717	-2.56	3.56	-7.21	-0.15	-1.49	2.29	-3.03	-9.11	-0.03	-2.30	-4.66	0.07	0.27	-1.03	1.07	-24.30
681	-5.81	-0.21	-13.88	0.54	1.16	0.42	-1.93	-8.22	-0.65	-2.30	9.21	0.07	0.49	-2.94	-0.09	-24.13
317	-8.91	-7.74	-10.82	-0.09	-0.17	1.04	-2.26	-5.31	0.53	0.59	9.21	-1.22	0.86	1.24	-1.00	-24.05
497	-4.60	-2.72	0.32	-10.50	2.49	-2.49	-10.08	-3.43	3.43	0.59	-3.73	1.37	0.64	5.20	-0.49	-24.01
720	-4.95	-0.21	-10.96	-0.09	1.16	1.04	-7.54	-3.79	0.98	-2.30	-0.03	0.07	0.58	1.97	0.06	-24.01
164	-9.97	-3.98	-16.36	-0.09	-0.17	1.87	-4.13	-6.84	2.62	0.59	12.91	-1.22	1.20	2.07	-2.40	-23.90
255	-8.14	-6.49	-12.96	2.81	-2.82	1.25	7.32	-11.58	-1.75	0.59	11.06	0.07	1.18	-3.29	-1.11	-23.85
392	-4.36	-1.46	-5.97	-0.10	-0.17	0.83	0.16	-9.40	0.93	0.59	-1.88	-1.22	0.59	-2.77	0.45	-23.78
345	-1.76	-5.23	-1.98	-10.50	1.16	2.29	-0.72	-0.68	3.79	3.48	-19.45	-1.22	1.14	7.69	-1.64	-23.62
263	-5.42	-1.46	-0.06	-0.15	-0.17	-3.32	-0.17	-10.24	1.51	0.59	-3.73	0.07	0.95	-1.67	-0.34	-23.61
362	-6.50	-0.21	-2.99	-0.09	2.49	-4.78	-7.32	-5.23	3.56	0.59	-4.66	0.07	1.31	1.16	-0.96	-23.55
230	-8.46	-5.23	5.36	-10.50	-1.49	-1.45	-2.59	-2.16	2.48	3.48	-9.28	-1.22	1.01	8.05	-1.44	-23.44
325	-4.39	-5.23	1.32	-10.50	1.16	0.00	0.60	-2.20	1.05	3.48	-13.90	-1.22	1.18	5.97	-0.58	-23.26
728	-0.42	2.30	1.18	-10.50	2.49	0.00	-4.68	-0.67	1.49	0.59	-23.15	0.07	0.90	6.70	0.48	-23.20

Appendix B - Sorted, Weighted Route Scores for All Evaluated Routes
Wolf Creek - Blackberry

Weights	6	4	8	4	2	3	5	9	3	2	10	1	1	3	1	
Route	Total Length	Angles Over 30 Degrees (count)	Length Not Along Existing Transmission Line	Length Through Previously Mined Area	Transmission Line Crossings	Stream Crossings	Wetlands in ROW	Sensitive Species Score	Cropland in ROW	Archaeological Sites within ROW	Residential Proximity Score	Public Facilities within 500 feet	Length Not Along Parcel Boundary	Floodplain in ROW	Total Length Karst	Total
352	-4.91	-1.46	-10.94	1.60	-2.82	1.25	5.12	-13.07	0.59	0.59	4.59	-1.22	1.33	-3.04	-0.71	-23.10
28	-3.80	-1.46	-9.36	-0.10	-0.17	2.91	-3.25	-5.83	1.63	-2.30	2.74	-1.22	0.29	-2.09	-0.96	-22.98
581	-5.62	-3.98	-13.76	2.81	-1.49	1.67	4.57	-9.76	-2.47	-2.30	8.29	1.37	0.85	-2.60	-0.48	-22.90
306	-3.72	-6.49	1.49	-10.50	1.16	0.00	0.93	-2.01	1.14	3.48	-13.90	-1.22	1.15	5.97	-0.36	-22.88
709	0.25	1.05	1.35	-10.50	2.49	0.00	-4.35	-0.48	1.59	0.59	-23.15	0.07	0.87	6.70	0.70	-22.82
589	-2.90	1.05	-0.86	-0.15	1.16	-2.91	-2.92	-8.41	0.79	-2.30	-6.51	1.37	0.62	-0.98	0.28	-22.66
324	-6.07	-6.49	6.65	-10.50	1.16	-3.74	-5.45	-3.73	2.06	3.48	-4.66	0.07	0.63	3.66	0.30	-22.63
688	-3.97	2.30	-3.78	-0.09	3.81	-4.36	-10.08	-3.40	2.84	-2.30	-7.43	1.37	0.98	1.85	-0.33	-22.60
727	-2.10	1.05	6.51	-10.50	2.49	-3.74	-10.74	-2.21	2.51	0.59	-13.90	1.37	0.35	4.41	1.35	-22.56
171	-7.13	-2.72	1.11	-10.50	1.16	-2.91	-7.32	-5.26	4.15	3.48	-0.96	0.07	0.97	4.50	-1.11	-22.45
259	-9.65	-5.23	-13.91	0.54	-0.17	0.21	3.47	-9.72	-0.96	0.59	17.53	-1.22	0.77	-3.45	-1.11	-22.31
360	-3.39	1.05	1.21	-0.10	2.49	-4.57	-2.26	-9.03	2.79	0.59	-9.28	0.07	0.99	-2.91	0.05	-22.29
334	-3.89	-1.46	-10.37	-0.15	-2.82	4.58	0.93	-9.13	2.26	0.59	-0.96	-1.22	0.52	-0.05	-1.05	-22.23
678	-2.39	1.05	-11.73	1.60	-1.49	1.67	2.48	-11.24	-0.13	-2.30	1.81	0.07	1.00	-2.33	-0.09	-22.01
337	-6.28	-5.23	-14.12	-0.09	-0.17	3.33	-3.47	-3.80	3.27	0.59	3.66	-1.22	0.83	2.96	-2.06	-21.80
479	-2.25	-0.21	-4.84	-10.50	2.49	1.25	-3.69	-1.71	2.51	0.59	-12.98	0.07	1.16	7.50	-1.14	-21.75
488	-4.34	-0.21	-12.95	-0.10	1.16	2.50	-1.82	-8.81	1.14	-2.30	5.51	0.07	0.55	-1.29	-0.77	-21.65
295	-5.85	-2.72	-6.90	-0.15	-2.82	2.29	2.59	-10.46	-0.39	0.59	4.59	-1.22	0.52	-1.78	0.23	-21.49
698	-1.88	4.82	-7.04	-0.15	-1.49	2.29	-2.70	-8.93	0.06	-2.30	-4.66	0.07	0.24	-1.03	1.29	-21.41
686	-0.86	3.56	0.42	-0.10	3.81	-4.15	-5.01	-7.20	2.07	-2.30	-12.05	1.37	0.66	-2.20	0.68	-21.31
585	-7.13	-2.72	-14.70	0.54	1.16	0.63	0.82	-7.90	-1.68	-2.30	14.76	0.07	0.44	-2.75	-0.48	-21.25
701	-4.27	1.05	-10.79	-0.09	1.16	1.04	-7.21	-3.60	1.07	-2.30	-0.03	0.07	0.55	1.97	0.28	-21.11
298	-8.24	-6.49	-10.65	-0.09	-0.17	1.04	-1.82	-5.13	0.62	0.59	9.21	-1.22	0.83	1.24	-0.78	-21.06
69	-4.21	-6.49	1.90	2.81	-0.17	-4.57	-2.70	-6.84	0.31	-2.30	2.74	1.37	0.78	-3.32	-0.07	-20.76
249	-3.07	-7.74	-2.81	-10.50	1.16	2.50	2.04	-0.36	2.76	3.48	-13.90	-1.22	1.10	7.87	-2.03	-20.75
266	-7.81	-2.72	-3.81	-0.09	2.49	-4.57	-4.57	-4.91	2.52	0.59	0.89	0.07	1.26	1.33	-1.35	-20.68
344	-3.44	-3.98	3.35	-10.50	1.16	-1.45	-6.77	-2.22	4.80	3.48	-10.20	0.07	0.60	5.38	-0.77	-20.49
468	-4.38	3.56	-13.23	-0.15	-1.49	3.54	-2.04	-10.16	0.98	-2.30	5.51	0.07	0.53	-0.24	-0.56	-20.35
315	-5.80	-3.98	-6.62	-0.10	-0.17	1.25	2.81	-9.10	-0.24	0.59	4.59	-1.22	0.54	-2.83	0.01	-20.27
60	-1.00	1.05	4.77	1.65	-2.82	-1.87	-3.03	6.23	-4.92	0.59	-14.83	-1.22	0.07	-4.33	-0.61	-20.26
658	-3.63	2.30	-12.76	2.81	-1.49	1.46	2.26	-9.90	-1.34	-2.30	2.74	1.37	0.87	-2.77	0.13	-20.25
256	-6.23	-3.98	-11.76	1.60	-2.82	1.46	7.87	-12.75	-0.44	0.59	10.13	-1.22	1.28	-2.85	-1.11	-20.21
162	-6.86	-0.21	-12.16	-0.10	-0.17	2.08	0.82	-10.63	1.85	0.59	8.29	-1.22	0.88	-1.98	-1.39	-20.21
718	-1.84	3.56	-6.76	-0.10	1.16	1.25	-2.48	-7.58	0.21	-2.30	-4.66	0.07	0.26	-2.08	1.07	-20.20
471	-6.77	-0.21	-16.98	-0.09	1.16	2.29	-6.55	-4.82	1.99	-2.30	10.13	0.07	0.84	2.76	-1.57	-20.05
666	-0.91	7.33	0.14	-0.15	1.16	-3.12	-5.23	-8.55	1.92	-2.30	-12.05	1.37	0.64	-1.15	0.89	-20.01
305	-5.39	-5.23	6.82	-10.50	1.16	-3.74	-5.12	-3.55	2.15	3.48	-4.66	0.07	0.60	3.66	0.51	-19.74
592	-5.29	-0.21	-4.61	-0.09	3.81	-4.15	-7.32	-3.08	1.80	-2.30	-1.88	1.37	0.93	2.04	-0.73	-19.71
708	-1.43	2.30	6.68	-10.50	2.49	-3.74	-10.41	-2.02	2.60	0.59	-13.90	1.37	0.32	4.41	1.57	-19.67
264	-4.70	-1.46	0.39	-0.10	2.49	-4.36	0.38	-8.71	1.75	0.59	-3.73	0.07	0.95	-2.72	-0.34	-19.51
537	-5.26	-1.46	4.74	-10.50	-0.17	-1.04	-4.90	-0.16	1.85	0.59	-12.05	0.07	0.65	8.76	-0.60	-19.47
238	-5.21	-3.98	-11.20	-0.15	-2.82	4.78	3.69	-8.81	1.23	0.59	4.59	-1.22	0.47	0.12	-1.45	-19.36
73	-5.72	-5.23	0.95	0.54	2.49	-5.61	-6.55	-4.99	1.10	-2.30	9.21	0.07	0.37	-3.49	-0.07	-19.24
582	-3.71	-1.46	-12.55	1.60	-1.49	1.87	5.23	-10.92	-1.17	-2.30	7.36	0.07	0.95	-2.16	-0.48	-19.15

Appendix B - Sorted, Weighted Route Scores for All Evaluated Routes
Wolf Creek - Blackberry

Weights	6	4	8	4	2	3	5	9	3	2	10	1	1	3	1	
Route	Total Length	Angles Over 30 Degrees (count)	Length Not Along Existing Transmission Line	Length Through Previously Mined Area	Transmission Line Crossings	Stream Crossings	Wetlands in ROW	Sensitive Species Score	Cropland in ROW	Archaeological Sites within ROW	Residential Proximity Score	Public Facilities within 500 feet	Length Not Along Parcel Boundary	Floodplain in ROW	Total Length Karst	Total
241	-7.60	-7.74	-14.95	-0.09	-0.17	3.54	-0.83	-3.48	2.24	0.59	9.21	-1.22	0.78	3.14	-2.46	-19.05
662	-5.14	3.56	-13.70	0.54	1.16	0.42	-1.60	-8.04	-0.56	-2.30	9.21	0.07	0.46	-2.94	0.13	-18.73
478	-3.93	1.05	0.49	-10.50	2.49	-2.49	-9.75	-3.25	3.53	0.59	-3.73	1.37	0.61	5.20	-0.27	-18.60
590	-2.18	1.05	-0.40	-0.10	3.81	-3.95	-2.26	-6.88	1.04	-2.30	-6.51	1.37	0.62	-2.03	0.28	-18.44
335	-3.17	-1.46	-9.92	-0.10	-0.17	3.54	1.49	-7.59	2.50	0.59	-0.96	-1.22	0.51	-1.10	-1.05	-18.13
621	-3.32	2.30	-7.69	-0.15	-1.49	2.71	-0.17	-8.63	-1.11	-2.30	1.81	0.07	0.19	-1.09	0.85	-18.02
248	-4.75	-6.49	2.52	-10.50	1.16	-1.24	-4.02	-1.90	3.77	3.48	-4.66	0.07	0.55	5.56	-1.16	-17.62
624	-5.72	-1.46	-11.44	-0.09	1.16	1.46	-4.57	-3.30	-0.09	-2.30	6.44	0.07	0.50	1.93	-0.16	-17.59
562	-4.94	-0.21	-13.58	2.81	-1.49	1.67	4.90	-9.58	-2.38	-2.30	8.29	1.37	0.82	-2.60	-0.27	-17.49
296	-5.13	-2.72	-6.45	-0.10	-0.17	1.25	3.14	-8.92	-0.15	0.59	4.59	-1.22	0.51	-2.83	0.23	-17.38
699	-1.16	4.82	-6.59	-0.10	1.16	1.25	-2.15	-7.39	0.30	-2.30	-4.66	0.07	0.23	-2.08	1.29	-17.31
652	1.44	1.05	-2.60	-10.50	2.49	2.71	-3.03	1.32	3.16	0.59	-22.22	0.07	0.79	8.38	-0.80	-17.15
570	-2.23	4.82	-0.68	-0.15	1.16	-2.91	-2.48	-8.23	0.89	-2.30	-6.51	1.37	0.59	-0.98	0.50	-17.14
70	-2.30	-3.98	3.10	1.60	-0.17	-4.36	-2.15	-8.01	1.61	-2.30	1.81	0.07	0.88	-2.88	-0.07	-17.13
669	-3.30	6.07	-3.61	-0.09	3.81	-4.36	-9.64	-3.22	2.93	-2.30	-7.43	1.37	0.95	1.85	-0.12	-17.08
632	-1.19	1.05	0.70	-10.50	2.49	0.42	-1.71	-0.19	0.42	0.59	-16.67	0.07	0.82	6.66	0.26	-16.79
659	-1.71	4.82	-11.55	1.60	-1.49	1.67	2.81	-11.06	-0.04	-2.30	1.81	0.07	0.97	-2.33	0.13	-16.61
613	-0.52	-0.21	0.87	-10.50	2.49	0.42	-1.38	-0.01	0.51	0.59	-16.67	0.07	0.79	6.66	0.48	-16.41
469	-3.66	3.56	-12.78	-0.10	1.16	2.50	-1.49	-8.62	1.23	-2.30	5.51	0.07	0.52	-1.29	-0.56	-16.25
101	-4.64	-5.23	-4.94	2.81	-2.82	1.04	-0.06	-7.07	-1.59	-2.30	11.06	0.07	0.35	-3.43	0.50	-16.24
631	-2.87	-0.21	6.03	-10.50	2.49	-3.32	-7.76	-1.73	1.43	0.59	-7.43	1.37	0.27	4.35	1.13	-16.16
61	-0.28	1.05	5.22	1.70	-0.17	-2.91	-2.37	7.76	-4.68	0.59	-14.83	-1.22	0.06	-5.38	-0.61	-16.05
376	-3.59	-6.49	1.34	2.81	-0.17	-3.95	2.04	-8.61	1.19	0.59	-0.96	1.37	1.01	-2.35	-0.16	-15.93
667	-0.19	7.33	0.60	-0.10	3.81	-4.15	-4.68	-7.01	2.16	-2.30	-12.05	1.37	0.63	-2.20	0.89	-15.91
109	-1.92	-0.21	7.96	-0.15	-0.17	-3.53	-7.43	-5.71	1.67	-2.30	-3.73	0.07	0.11	-1.81	1.26	-15.88
641	-0.69	4.82	-11.00	-0.15	-1.49	4.99	-1.49	-7.12	1.63	-2.30	-3.73	0.07	0.16	0.64	-0.21	-15.87
566	-6.45	1.05	-14.53	0.54	1.16	0.63	1.15	-7.72	-1.59	-2.30	14.76	0.07	0.41	-2.75	-0.27	-15.84
644	-3.08	1.05	-14.75	-0.09	1.16	3.74	-5.89	-1.79	2.64	-2.30	0.89	0.07	0.47	3.66	-1.23	-15.45
367	-0.38	1.05	4.21	1.65	-2.82	-1.24	1.71	4.46	-4.04	3.48	-18.52	-1.22	0.29	-3.35	-0.71	-15.43
50	-3.54	-2.72	2.07	2.81	-0.17	-4.57	-2.37	-6.67	0.40	-2.30	2.74	1.37	0.75	-3.32	0.15	-15.36
239	-4.49	-3.98	-10.75	-0.10	-0.17	3.74	4.24	-7.27	1.47	0.59	4.59	-1.22	0.46	-0.93	-1.45	-15.26
602	-2.65	3.56	-7.52	-0.15	-1.49	2.71	0.16	-8.46	-1.02	-2.30	1.81	0.07	0.16	-1.09	1.07	-15.14
408	-4.56	-6.49	-5.84	2.81	-2.82	1.46	4.46	-9.00	-0.67	0.59	6.44	0.07	0.60	-2.20	0.23	-14.92
41	-0.33	4.82	4.95	1.65	-2.82	-1.87	-2.70	6.41	-4.83	0.59	-14.83	-1.22	0.04	-4.33	-0.40	-14.86
605	-5.04	-0.21	-11.27	-0.09	1.16	1.46	-4.24	-3.12	0.00	-2.30	6.44	0.07	0.47	1.93	0.05	-14.70
416	-1.84	-1.46	7.05	-0.15	-0.17	-3.12	-3.03	-7.65	2.59	0.59	-8.35	0.07	0.37	-0.60	1.00	-14.69
105	-6.15	-3.98	-5.89	0.54	-0.17	0.00	-3.80	-5.20	-0.80	-2.30	17.53	-1.22	-0.07	-3.59	0.50	-14.58
380	-5.10	-5.23	0.39	0.54	2.49	-4.99	-1.82	-6.75	1.97	0.59	5.51	0.07	0.59	-2.50	-0.16	-14.39
573	-4.62	3.56	-4.43	-0.09	3.81	-4.15	-6.99	-2.90	1.89	-2.30	-1.88	1.37	0.90	2.04	-0.51	-14.31
556	0.12	-1.46	-3.43	-10.50	2.49	2.91	-0.28	1.64	2.13	0.59	-16.67	0.07	0.74	8.56	-1.19	-14.29
651	-0.24	2.30	2.73	-10.50	2.49	-1.04	-9.09	-0.21	4.18	0.59	-12.98	1.37	0.24	6.08	0.07	-14.01
178	-7.06	-7.74	-12.04	2.81	-2.82	2.71	5.12	-10.22	0.26	0.59	16.61	0.07	0.89	-1.42	-1.61	-13.85
54	-5.05	-1.46	1.12	0.54	2.49	-5.61	-6.22	-4.80	1.19	-2.30	9.21	0.07	0.34	-3.49	0.15	-13.84
622	-2.60	2.30	-7.24	-0.10	1.16	1.67	0.49	-7.10	-0.87	-2.30	1.81	0.07	0.18	-2.13	0.85	-13.80

Appendix B - Sorted, Weighted Route Scores for All Evaluated Routes
Wolf Creek - Blackberry

Weights	6	4	8	4	2	3	5	9	3	2	10	1	1	3	1	
Route	Total Length	Angles Over 30 Degrees (count)	Length Not Along Existing Transmission Line	Length Through Previously Mined Area	Transmission Line Crossings	Stream Crossings	Wetlands in ROW	Sensitive Species Score	Cropland in ROW	Archaeological Sites within ROW	Residential Proximity Score	Public Facilities within 500 feet	Length Not Along Parcel Boundary	Floodplain in ROW	Total Length Karst	Total
563	-3.03	2.30	-12.38	1.60	-1.49	1.87	5.56	-10.74	-1.08	-2.30	7.36	0.07	0.92	-2.16	-0.27	-13.74
186	-4.34	-2.72	0.86	-0.15	-0.17	-1.87	-2.37	-8.87	3.51	0.59	1.81	0.07	0.66	0.20	-0.84	-13.61
82	-3.96	-3.98	-4.77	2.81	-2.82	1.04	0.27	-6.89	-1.50	-2.30	11.06	0.07	0.32	-3.43	0.71	-13.35
412	-6.07	-5.23	-6.79	0.54	-0.17	0.42	0.71	-7.13	0.12	0.59	12.91	-1.22	0.19	-2.38	0.23	-13.28
612	-2.20	1.05	6.20	-10.50	2.49	-3.32	-7.43	-1.54	1.52	0.59	-7.43	1.37	0.24	4.35	1.35	-13.27
280	-4.91	-9.00	0.51	2.81	-0.17	-3.74	4.68	-8.29	0.16	0.59	4.59	1.37	0.96	-2.16	-0.55	-13.15
112	-4.31	-1.46	4.21	-0.09	2.49	-4.78	-11.95	-0.39	2.68	-2.30	0.89	0.07	0.42	1.21	0.25	-13.06
571	-1.51	4.82	-0.23	-0.10	3.81	-3.95	-1.93	-6.69	1.13	-2.30	-6.51	1.37	0.59	-2.03	0.50	-13.04
90	-1.24	1.05	8.13	-0.15	-0.17	-3.53	-7.10	-5.54	1.76	-2.30	-3.73	0.07	0.08	-1.81	1.48	-13.00
545	-2.01	2.30	-11.82	-0.15	-1.49	5.20	1.27	-6.80	0.60	-2.30	1.81	0.07	0.11	0.83	-0.61	-12.99
548	-4.40	-1.46	-15.57	-0.09	1.16	3.95	-3.14	-1.47	1.61	-2.30	6.44	0.07	0.42	3.83	-1.62	-12.58
271	-1.70	-1.46	3.39	1.65	-2.82	-1.04	4.46	4.78	-5.08	3.48	-12.98	-1.22	0.25	-3.16	-1.10	-12.54
102	-2.72	-2.72	-3.74	1.60	-2.82	1.25	0.60	-8.24	-0.29	-2.30	10.13	-1.22	0.45	-2.99	0.50	-12.50
377	-1.68	-3.98	2.54	1.60	-0.17	-3.74	2.59	-9.78	2.49	0.59	-1.88	0.07	1.11	-1.91	-0.16	-12.29
182	-8.57	-6.49	-12.98	0.54	-0.17	1.67	1.38	-8.36	1.04	0.59	23.08	-1.22	0.48	-1.59	-1.61	-12.22
389	-3.89	-5.23	-5.67	2.81	-2.82	1.46	4.79	-8.81	-0.58	0.59	6.44	0.07	0.57	-2.20	0.45	-12.02
110	-1.20	-0.21	8.41	-0.10	2.49	-4.57	-6.88	-4.19	1.92	-2.30	-3.73	0.07	0.11	-2.86	1.26	-11.79
419	-4.24	-2.72	3.31	-0.09	2.49	-4.36	-7.43	-2.32	3.60	0.59	-3.73	0.07	0.68	2.41	-0.01	-11.75
51	-1.63	-0.21	3.27	1.60	-0.17	-4.36	-1.82	-7.82	1.70	-2.30	1.81	0.07	0.85	-2.88	0.15	-11.72
86	-5.47	-2.72	-5.71	0.54	-0.17	0.00	-3.47	-5.02	-0.71	-2.30	17.53	-1.22	-0.10	-3.59	0.71	-11.70
397	-1.17	-0.21	7.23	-0.15	-0.17	-3.12	-2.59	-7.47	2.68	0.59	-8.35	0.07	0.34	-0.60	1.21	-11.70
642	0.03	4.82	-10.54	-0.10	1.16	3.95	-0.83	-5.59	1.88	-2.30	-3.73	0.07	0.15	-0.41	-0.21	-11.66
284	-6.42	-7.74	-0.44	0.54	2.49	-4.78	0.93	-6.43	0.94	0.59	11.06	0.07	0.55	-2.31	-0.55	-11.51
25	-3.32	-5.23	-9.07	2.81	-2.82	3.54	1.38	-5.23	0.12	-2.30	11.06	0.07	0.27	-1.53	-0.96	-11.22
368	0.34	1.05	4.66	1.70	-0.17	-2.28	2.37	6.00	-3.80	3.48	-18.52	-1.22	0.29	-4.40	-0.71	-11.22
409	-2.65	-3.98	-4.64	1.60	-2.82	1.67	5.12	-10.16	0.63	0.59	5.51	-1.22	0.70	-1.78	0.23	-11.19
555	-1.56	-0.21	1.90	-10.50	2.49	-0.83	-6.33	0.11	3.14	0.59	-7.43	1.37	0.19	6.26	-0.32	-11.13
33	-0.60	-0.21	3.83	-0.15	-0.17	-1.04	-6.11	-3.89	3.38	-2.30	-3.73	0.07	0.04	0.09	-0.19	-10.98
603	-1.93	3.56	-7.07	-0.10	1.16	1.67	0.82	-6.91	-0.77	-2.30	1.81	0.07	0.15	-2.13	1.07	-10.90
189	-6.74	-3.98	-2.89	-0.09	2.49	-3.12	-6.77	-3.55	4.53	0.59	6.44	0.07	0.97	3.20	-1.85	-10.69
42	0.39	4.82	5.40	1.70	-0.17	-2.91	-2.04	7.95	-4.59	0.59	-14.83	-1.22	0.03	-5.38	-0.40	-10.65
357	-2.92	-2.72	1.51	2.81	-0.17	-3.95	2.37	-8.43	1.28	0.59	-0.96	1.37	0.97	-2.35	0.05	-10.52
417	-1.12	-1.46	7.51	-0.10	2.49	-4.15	-2.37	-6.11	2.83	0.59	-8.35	0.07	0.37	-1.65	1.00	-10.48
393	-5.40	-3.98	-6.62	0.54	-0.17	0.42	1.04	-6.96	0.21	0.59	12.91	-1.22	0.16	-2.38	0.45	-10.40
93	-3.64	-0.21	4.38	-0.09	2.49	-4.78	-11.62	-0.20	2.77	-2.30	0.89	0.07	0.39	1.21	0.47	-10.16
179	-5.15	-5.23	-10.83	1.60	-2.82	2.91	5.78	-11.39	1.56	0.59	15.68	-1.22	0.99	-0.98	-1.61	-10.11
348	0.30	4.82	4.38	1.65	-2.82	-1.24	2.04	4.65	-3.95	3.48	-18.52	-1.22	0.26	-3.35	-0.49	-10.02
485	-3.87	-3.98	-12.66	2.81	-1.49	3.12	2.81	-8.22	-0.37	-2.30	13.83	1.37	0.54	-0.73	-0.77	-9.90
29	-4.83	-3.98	-10.01	0.54	-0.17	2.50	-2.48	-3.37	0.90	-2.30	17.53	-1.22	-0.14	-1.69	-0.96	-9.68
493	-1.15	1.05	0.24	-0.15	1.16	-1.45	-4.68	-6.86	2.89	-2.30	-0.96	1.37	0.30	0.89	0.00	-9.66
83	-2.05	-1.46	-3.57	1.60	-2.82	1.25	0.93	-8.05	-0.20	-2.30	10.13	-1.22	0.41	-2.99	0.71	-9.61
683	-0.39	-0.21	0.72	2.81	1.16	-3.53	-0.39	-6.61	0.56	-2.30	-3.73	2.66	0.65	-1.64	0.68	-9.56
281	-2.99	-6.49	1.71	1.60	-0.17	-3.53	5.34	-9.46	1.46	0.59	3.66	0.07	1.06	-1.72	-0.55	-9.41
187	-3.63	-2.72	1.32	-0.10	2.49	-2.91	-1.71	-7.33	3.76	0.59	1.81	0.07	0.66	-0.85	-0.84	-9.40

Appendix B - Sorted, Weighted Route Scores for All Evaluated Routes
Wolf Creek - Blackberry

Weights	6	4	8	4	2	3	5	9	3	2	10	1	1	3	1	
Route	Total Length	Angles Over 30 Degrees (count)	Length Not Along Existing Transmission Line	Length Through Previously Mined Area	Transmission Line Crossings	Stream Crossings	Wetlands in ROW	Sensitive Species Score	Cropland in ROW	Archaeological Sites within ROW	Residential Proximity Score	Public Facilities within 500 feet	Length Not Along Parcel Boundary	Floodplain in ROW	Total Length Karst	Total
361	-4.42	-1.46	0.56	0.54	2.49	-4.99	-1.49	-6.57	2.06	0.59	5.51	0.07	0.56	-2.50	0.05	-8.99
218	-4.77	-1.46	-5.97	-0.15	-2.82	3.74	0.38	-9.09	1.61	0.59	10.13	-1.22	0.23	0.09	-0.28	-8.98
674	2.82	7.33	3.59	1.65	-1.49	-0.83	-0.61	6.47	-4.67	0.59	-21.30	0.07	-0.07	-2.66	0.13	-8.96
91	-0.53	1.05	8.58	-0.10	2.49	-4.57	-6.55	-4.00	2.01	-2.30	-3.73	0.07	0.08	-2.86	1.48	-8.90
546	-1.29	2.30	-11.37	-0.10	1.16	4.16	1.82	-5.27	0.84	-2.30	1.81	0.07	0.10	-0.22	-0.61	-8.89
400	-3.56	-1.46	3.48	-0.09	2.49	-4.36	-7.10	-2.13	3.69	0.59	-3.73	0.07	0.65	2.41	0.20	-8.85
221	-7.16	-5.23	-9.72	-0.09	-0.17	2.50	-4.02	-3.76	2.62	0.59	14.76	-1.22	0.54	3.11	-1.29	-8.55
312	-5.33	-7.74	-6.33	2.81	-2.82	1.87	7.43	-8.52	-1.75	0.59	12.91	0.07	0.52	-2.27	0.01	-8.53
715	-1.37	-0.21	-6.46	2.81	-1.49	1.87	2.15	-6.99	-1.30	-2.30	3.66	1.37	0.24	-1.51	1.07	-8.46
159	-6.39	-3.98	-11.86	2.81	-2.82	2.71	5.45	-10.03	0.35	0.59	16.61	0.07	0.86	-1.42	-1.39	-8.45
272	-0.98	-1.46	3.84	1.70	-0.17	-2.08	5.01	6.32	-4.84	3.48	-12.98	-1.22	0.24	-4.22	-1.10	-8.44
489	-5.38	-2.72	-13.60	0.54	1.16	2.08	-1.05	-6.35	0.41	-2.30	20.30	0.07	0.12	-0.88	-0.77	-8.36
390	-1.98	-2.72	-4.47	1.60	-2.82	1.67	5.45	-9.98	0.72	0.59	5.51	-1.22	0.67	-1.78	0.45	-8.30
320	-2.61	-2.72	6.57	-0.15	-0.17	-2.70	-0.06	-7.16	1.52	0.59	-1.88	0.07	0.29	-0.65	0.78	-8.28
167	-3.67	1.05	1.04	-0.15	-0.17	-1.87	-2.04	-8.68	3.60	0.59	1.81	0.07	0.63	0.20	-0.63	-8.21
723	1.35	4.82	6.44	-0.15	1.16	-2.70	-5.34	-5.64	1.96	-2.30	-11.13	1.37	0.01	0.11	1.84	-8.21
36	-3.00	-1.46	0.08	-0.09	2.49	-2.28	-10.52	1.44	4.39	-2.30	0.89	0.07	0.34	3.11	-1.21	-8.04
687	-1.90	1.05	-0.23	0.54	3.81	-4.57	-4.24	-4.75	1.35	-2.30	2.74	1.37	0.23	-1.81	0.68	-8.04
261	-4.23	-5.23	0.68	2.81	-0.17	-3.74	5.01	-8.11	0.25	0.59	4.59	1.37	0.93	-2.16	-0.34	-7.75
229	-2.64	-2.72	2.42	-10.50	1.16	1.46	-1.16	-0.65	3.14	3.48	-8.35	-1.22	0.86	7.83	-0.86	-7.75
398	-0.45	-0.21	7.68	-0.10	2.49	-4.15	-2.04	-5.93	2.92	0.59	-8.35	0.07	0.34	-1.65	1.21	-7.59
26	-1.41	-2.72	-7.87	1.60	-2.82	3.74	2.04	-6.40	1.42	-2.30	10.13	-1.22	0.37	-1.09	-0.96	-7.47
210	-1.96	-3.98	2.59	-10.50	1.16	1.46	-0.83	-0.46	3.23	3.48	-8.35	-1.22	0.83	7.83	-0.65	-7.37
252	-1.02	2.30	3.56	1.65	-2.82	-1.04	4.79	4.97	-4.99	3.48	-12.98	-1.22	0.21	-3.16	-0.88	-7.14
228	-4.32	-3.98	7.75	-10.50	1.16	-2.28	-7.21	-2.18	4.16	3.48	0.89	0.07	0.31	5.53	0.01	-7.12
316	-6.84	-6.49	-7.27	0.54	-0.17	0.83	3.58	-6.65	-0.96	0.59	19.38	-1.22	0.11	-2.42	0.01	-6.98
719	-2.87	1.05	-7.41	0.54	1.16	0.83	-1.71	-5.12	-0.51	-2.30	10.13	0.07	-0.17	-1.69	1.07	-6.92
358	-1.00	-0.21	2.71	1.60	-0.17	-3.74	2.92	-9.59	2.58	0.59	-1.88	0.07	1.07	-1.91	0.05	-6.89
163	-7.90	-2.72	-12.81	0.54	-0.17	1.67	1.71	-8.17	1.13	0.59	23.08	-1.22	0.45	-1.59	-1.39	-6.82
34	0.11	-0.21	4.29	-0.10	2.49	-2.08	-5.45	-2.35	3.62	-2.30	-3.73	0.07	0.03	-0.96	-0.19	-6.77
496	-3.54	-0.21	-3.51	-0.09	3.81	-2.70	-9.09	-1.53	3.90	-2.30	3.66	1.37	0.61	3.89	-1.01	-6.73
587	-1.71	-2.72	-0.11	2.81	1.16	-3.32	2.37	-6.29	-0.47	-2.30	1.81	2.66	0.60	-1.47	0.28	-6.69
332	-2.70	-5.23	-9.63	2.81	-2.82	4.16	6.11	-7.00	1.00	0.59	7.36	0.07	0.49	-0.54	-1.05	-6.37
486	-1.95	-1.46	-11.46	1.60	-1.49	3.33	3.36	-9.37	0.93	-2.30	12.91	0.07	0.63	-0.29	-0.77	-6.26
340	0.02	-0.21	3.27	-0.15	-0.17	-0.41	-1.38	-5.65	4.26	0.59	-7.43	0.07	0.26	1.08	-0.29	-6.13
265	-5.74	-3.98	-0.26	0.54	2.49	-4.78	1.27	-6.25	1.03	0.59	11.06	0.07	0.52	-2.31	-0.34	-6.10
199	-4.10	-0.21	-5.80	-0.15	-2.82	3.74	0.71	-8.91	1.70	0.59	10.13	-1.22	0.20	0.09	-0.06	-6.09
578	1.50	4.82	2.77	1.65	-1.49	-0.62	2.15	6.79	-5.70	0.59	-15.75	0.07	-0.11	-2.47	-0.26	-6.08
349	1.02	4.82	4.84	1.70	-0.17	-2.28	2.70	6.18	-3.71	3.48	-18.52	-1.22	0.26	-4.40	-0.49	-5.81
684	1.52	2.30	1.92	1.60	1.16	-3.32	0.27	-7.77	1.87	-2.30	-4.66	1.37	0.75	-1.20	0.68	-5.81
202	-6.49	-3.98	-9.55	-0.09	-0.17	2.50	-3.69	-3.57	2.71	0.59	14.76	-1.22	0.51	3.11	-1.07	-5.66
293	-4.66	-6.49	-6.15	2.81	-2.82	1.87	7.76	-8.34	-1.66	0.59	12.91	0.07	0.49	-2.27	0.23	-5.64
696	-0.69	1.05	-6.29	2.81	-1.49	1.87	2.48	-6.81	-1.21	-2.30	3.66	1.37	0.21	-1.51	1.29	-5.56
494	-0.43	1.05	0.70	-0.10	3.81	-2.49	-4.13	-5.33	3.13	-2.30	-0.96	1.37	0.30	-0.16	0.00	-5.56

Appendix B - Sorted, Weighted Route Scores for All Evaluated Routes
Wolf Creek - Blackberry

Weights	6	4	8	4	2	3	5	9	3	2	10	1	1	3	1	
Route	Total Length	Angles Over 30 Degrees (count)	Length Not Along Existing Transmission Line	Length Through Previously Mined Area	Transmission Line Crossings	Stream Crossings	Wetlands in ROW	Sensitive Species Score	Cropland in ROW	Archaeological Sites within ROW	Residential Proximity Score	Public Facilities within 500 feet	Length Not Along Parcel Boundary	Floodplain in ROW	Total Length Karst	Total
301	-1.94	-1.46	6.75	-0.15	-0.17	-2.70	0.27	-6.99	1.61	0.59	-1.88	0.07	0.26	-0.65	0.99	-5.39
323	-5.00	-3.98	2.82	-0.09	2.49	-3.95	-4.46	-1.83	2.52	0.59	2.74	0.07	0.60	2.37	-0.23	-5.34
704	2.03	6.07	6.61	-0.15	1.16	-2.70	-5.01	-5.46	2.06	-2.30	-11.13	1.37	-0.02	0.11	2.05	-5.32
170	-6.06	-0.21	-2.71	-0.09	2.49	-3.12	-6.44	-3.36	4.62	0.59	6.44	0.07	0.94	3.20	-1.64	-5.29
726	-1.04	3.56	2.69	-0.09	3.81	-3.95	-9.75	-0.31	2.98	-2.30	-6.51	1.37	0.32	3.11	0.83	-5.28
153	-1.32	-5.23	-1.71	-10.50	1.16	3.95	0.27	1.19	4.85	3.48	-8.35	-1.22	0.78	9.74	-2.32	-5.24
591	-3.22	-1.46	-1.05	0.54	3.81	-4.36	-1.49	-4.43	0.31	-2.30	8.29	1.37	0.19	-1.62	0.28	-5.15
525	-1.57	2.30	-6.59	-0.15	-1.49	4.16	-1.93	-7.09	0.98	-2.30	7.36	0.07	-0.13	0.78	0.56	-5.03
313	-3.42	-5.23	-5.13	1.60	-2.82	2.08	7.98	-9.68	-0.44	0.59	11.98	-1.22	0.62	-1.83	0.01	-4.89
675	3.54	7.33	4.04	1.70	1.16	-1.87	-0.06	8.00	-4.43	0.59	-21.30	0.07	-0.07	-3.71	0.13	-4.86
716	0.55	2.30	-5.26	1.60	-1.49	2.08	2.70	-8.16	0.01	-2.30	2.74	0.07	0.34	-1.07	1.07	-4.82
219	-4.05	-1.46	-5.52	-0.10	-0.17	2.71	1.04	-7.55	1.85	0.59	10.13	-1.22	0.22	-0.96	-0.28	-4.77
336	-4.21	-3.98	-10.58	0.54	-0.17	3.12	2.37	-5.14	1.78	0.59	13.83	-1.22	0.08	-0.70	-1.05	-4.72
160	-4.48	-1.46	-10.66	1.60	-2.82	2.91	6.11	-11.20	1.65	0.59	15.68	-1.22	0.96	-0.98	-1.39	-4.71
19	9.58	-2.72	-1.61	-10.50	-0.17	4.58	-6.99	15.12	0.25	0.59	-17.60	-1.22	-1.39	6.63	0.85	-4.61
528	-3.96	-1.46	-10.35	-0.09	1.16	2.91	-6.33	-1.75	2.00	-2.30	11.98	0.07	0.18	3.80	-0.45	-4.60
466	-3.19	-0.21	-12.48	2.81	-1.49	3.12	3.14	-8.03	-0.28	-2.30	13.83	1.37	0.50	-0.73	-0.56	-4.50
58	0.19	-2.72	5.52	4.62	-2.82	-2.28	2.26	8.36	-6.19	0.59	-6.51	0.07	0.04	-4.81	-0.61	-4.29
474	-0.47	4.82	0.42	-0.15	1.16	-1.45	-4.35	-6.68	2.98	-2.30	-0.96	1.37	0.27	0.89	0.21	-4.26
209	-3.64	-2.72	7.92	-10.50	1.16	-2.28	-6.88	-2.00	4.25	3.48	0.89	0.07	0.28	5.53	0.22	-4.23
664	0.28	3.56	0.89	2.81	1.16	-3.53	-0.06	-6.42	0.65	-2.30	-3.73	2.66	0.62	-1.64	0.89	-4.15
724	2.07	4.82	6.89	-0.10	3.81	-3.74	-4.79	-4.10	2.21	-2.30	-11.13	1.37	0.01	-0.95	1.84	-4.10
297	-6.17	-5.23	-7.10	0.54	-0.17	0.83	3.91	-6.47	-0.87	0.59	19.38	-1.22	0.08	-2.42	0.23	-4.10
321	-1.89	-2.72	7.02	-0.10	2.49	-3.74	0.60	-5.63	1.76	0.59	-1.88	0.07	0.29	-1.70	0.78	-4.06
700	-2.20	2.30	-7.24	0.54	1.16	0.83	-1.38	-4.95	-0.42	-2.30	10.13	0.07	-0.20	-1.69	1.29	-4.04
262	-2.32	-2.72	1.89	1.60	-0.17	-3.53	5.67	-9.27	1.55	0.59	3.66	0.07	1.03	-1.72	-0.34	-4.01
168	-2.95	1.05	1.49	-0.10	2.49	-2.91	-1.38	-7.16	3.85	0.59	1.81	0.07	0.63	-0.85	-0.63	-4.00
142	-3.46	-1.46	-10.10	-0.15	-2.82	6.24	1.82	-7.26	3.32	0.59	10.13	-1.22	0.15	1.99	-1.74	-3.96
536	0.56	1.05	1.80	-10.50	2.49	1.87	-3.58	1.36	2.51	0.59	-11.13	0.07	0.50	8.53	-0.02	-3.91
655	3.49	11.09	3.76	1.65	-1.49	-0.83	-0.28	6.65	-4.58	0.59	-21.30	0.07	-0.10	-2.66	0.35	-3.56
145	-5.85	-5.23	-13.85	-0.09	-0.17	4.99	-2.59	-1.93	4.33	0.59	14.76	-1.22	0.46	5.01	-2.75	-3.54
517	1.23	-0.21	1.97	-10.50	2.49	1.87	-3.25	1.54	2.60	0.59	-11.13	0.07	0.47	8.53	0.19	-3.53
236	-4.02	-7.74	-10.46	2.81	-2.82	4.37	8.86	-6.68	-0.04	0.59	12.91	0.07	0.45	-0.35	-1.45	-3.49
8	7.45	1.05	-10.00	-0.15	-4.14	6.86	-5.45	6.68	-1.28	-2.30	0.89	-1.22	-2.02	-1.12	1.43	-3.33
535	-1.12	-0.21	7.13	-10.50	2.49	-1.87	-9.64	-0.18	3.53	0.59	-1.88	1.37	-0.05	6.22	0.85	-3.28
244	-1.30	-2.72	2.45	-0.15	-0.17	-0.21	1.38	-5.33	3.22	0.59	-1.88	0.07	0.21	1.25	-0.68	-3.26
343	-2.37	-1.46	-0.48	-0.09	2.49	-1.66	-5.78	-0.33	5.27	0.59	-2.81	0.07	0.57	4.08	-1.30	-3.21
588	0.20	-0.21	1.09	1.60	1.16	-3.12	2.92	-7.45	0.83	-2.30	0.89	1.37	0.70	-1.03	0.28	-3.05
253	-0.30	2.30	4.01	1.70	-0.17	-2.08	5.34	6.50	-4.74	3.48	-12.98	-1.22	0.21	-4.22	-0.88	-3.04
470	-4.70	1.05	-13.43	0.54	1.16	2.08	-0.72	-6.17	0.50	-2.30	20.30	0.07	0.09	-0.88	-0.56	-2.96
11	5.05	-2.72	-13.75	-0.09	-1.49	5.62	-9.86	12.00	-0.27	-2.30	5.51	-1.22	-1.71	1.90	0.42	-2.91
62	-1.32	-1.46	4.57	2.35	-0.17	-3.32	-1.60	10.22	-5.40	0.59	-0.03	-1.22	-0.37	-4.98	-0.61	-2.76
333	-0.79	-2.72	-8.43	1.60	-2.82	4.37	6.77	-8.17	2.30	0.59	6.44	-1.22	0.59	-0.10	-1.05	-2.63
668	-1.23	4.82	-0.06	0.54	3.81	-4.57	-3.80	-4.56	1.44	-2.30	2.74	1.37	0.20	-1.81	0.89	-2.52

Appendix B - Sorted, Weighted Route Scores for All Evaluated Routes
Wolf Creek - Blackberry

Weights	6	4	8	4	2	3	5	9	3	2	10	1	1	3	1	
Route	Total Length	Angles Over 30 Degrees (count)	Length Not Along Existing Transmission Line	Length Through Previously Mined Area	Transmission Line Crossings	Stream Crossings	Wetlands in ROW	Sensitive Species Score	Cropland in ROW	Archaeological Sites within ROW	Residential Proximity Score	Public Facilities within 500 feet	Length Not Along Parcel Boundary	Floodplain in ROW	Total Length Karst	Total
304	-4.33	-2.72	2.99	-0.09	2.49	-3.95	-4.13	-1.65	2.62	0.59	2.74	0.07	0.57	2.37	-0.02	-2.45
707	-0.36	4.82	2.86	-0.09	3.81	-3.95	-9.42	-0.13	3.07	-2.30	-6.51	1.37	0.29	3.11	1.04	-2.39
506	-0.90	3.56	-6.42	-0.15	-1.49	4.16	-1.60	-6.91	1.07	-2.30	7.36	0.07	-0.16	0.78	0.78	-2.14
152	-3.00	-3.98	3.62	-10.50	1.16	0.21	-5.78	-0.35	5.86	3.48	0.89	0.07	0.23	7.43	-1.45	-2.10
619	-2.13	-1.46	-6.95	2.81	-1.49	2.29	5.12	-6.51	-2.37	-2.30	10.13	1.37	0.16	-1.56	0.85	-2.04
579	2.22	4.82	3.22	1.70	1.16	-1.66	2.70	8.32	-5.46	0.59	-15.75	0.07	-0.12	-3.52	-0.26	-1.98
240	-5.53	-6.49	-11.40	0.54	-0.17	3.33	5.01	-4.82	0.75	0.59	19.38	-1.22	0.03	-0.52	-1.45	-1.96
697	1.22	3.56	-5.09	1.60	-1.49	2.08	3.03	-7.97	0.10	-2.30	2.74	0.07	0.31	-1.07	1.29	-1.92
341	0.74	-0.21	3.72	-0.10	2.49	-1.45	-0.72	-4.11	4.50	0.59	-7.43	0.07	0.25	0.03	-0.29	-1.92
294	-2.74	-3.98	-4.95	1.60	-2.82	2.08	8.42	-9.49	-0.35	0.59	11.98	-1.22	0.59	-1.83	0.23	-1.88
200	-3.38	-0.21	-5.35	-0.10	-0.17	2.71	1.38	-7.37	1.94	0.59	10.13	-1.22	0.19	-0.96	-0.06	-1.88
627	0.59	3.56	5.95	-0.15	1.16	-2.28	-2.37	-5.16	0.89	-2.30	-4.66	1.37	-0.07	0.04	1.62	-1.81
509	-3.29	-0.21	-10.17	-0.09	1.16	2.91	-6.00	-1.57	2.09	-2.30	11.98	0.07	0.15	3.80	-0.23	-1.70
18	7.90	-1.46	3.72	-10.50	-0.17	0.83	-13.05	13.58	1.26	0.59	-8.35	0.07	-1.94	4.32	1.72	-1.48
460	1.87	-1.46	-2.33	-10.50	2.49	4.37	-2.15	3.19	4.22	0.59	-11.13	0.07	0.42	10.43	-1.48	-1.40
477	-2.86	3.56	-3.33	-0.09	3.81	-2.70	-8.76	-1.35	3.99	-2.30	3.66	1.37	0.58	3.89	-0.80	-1.33
568	-1.04	1.05	0.06	2.81	1.16	-3.32	2.70	-6.10	-0.38	-2.30	1.81	2.66	0.57	-1.47	0.50	-1.28
705	2.75	6.07	7.06	-0.10	3.81	-3.74	-4.46	-3.92	2.30	-2.30	-11.13	1.37	-0.02	-0.95	2.05	-1.21
302	-1.22	-1.46	7.20	-0.10	2.49	-3.74	0.93	-5.44	1.85	0.59	-1.88	0.07	0.26	-1.70	0.99	-1.17
526	-0.85	2.30	-6.14	-0.10	1.16	3.12	-1.38	-5.55	1.23	-2.30	7.36	0.07	-0.14	-0.27	0.56	-0.93
467	-1.28	2.30	-11.28	1.60	-1.49	3.33	3.69	-9.19	1.02	-2.30	12.91	0.07	0.60	-0.29	-0.56	-0.86
559	2.18	8.58	2.94	1.65	-1.49	-0.62	2.48	6.97	-5.61	0.59	-15.75	0.07	-0.14	-2.47	-0.05	-0.67
59	2.10	-0.21	6.72	3.41	-2.82	-2.08	2.81	7.19	-4.88	0.59	-7.43	-1.22	0.14	-4.37	-0.61	-0.65
623	-3.64	-0.21	-7.89	0.54	1.16	1.25	1.27	-4.64	-1.59	-2.30	16.61	0.07	-0.25	-1.73	0.85	-0.51
665	2.19	6.07	2.09	1.60	1.16	-3.32	0.60	-7.58	1.96	-2.30	-4.66	1.37	0.72	-1.20	0.89	-0.40
247	-3.69	-3.98	-1.31	-0.09	2.49	-1.45	-3.03	-0.01	4.23	0.59	2.74	0.07	0.52	4.27	-1.69	-0.32
516	-0.44	1.05	7.30	-10.50	2.49	-1.87	-9.20	0.01	3.62	0.59	-1.88	1.37	-0.08	6.22	1.06	-0.28
475	0.25	4.82	0.87	-0.10	3.81	-2.49	-3.80	-5.14	3.22	-2.30	-0.96	1.37	0.27	-0.16	0.21	-0.15
107	-0.73	-3.98	8.71	2.81	-0.17	-3.95	-2.26	-3.60	0.41	-2.30	4.59	1.37	0.09	-2.30	1.26	-0.03
449	-0.26	2.30	-10.72	-0.15	-1.49	6.66	-0.50	-5.25	2.69	-2.30	7.36	0.07	-0.21	2.68	-0.90	-0.01
639	0.50	1.05	-10.25	2.81	-1.49	4.58	3.80	-4.99	0.37	-2.30	4.59	1.37	0.13	0.15	-0.21	0.10
237	-2.10	-5.23	-9.25	1.60	-2.82	4.58	9.41	-7.85	1.26	0.59	11.98	-1.22	0.54	0.07	-1.45	0.13
143	-2.74	-1.46	-9.65	-0.10	-0.17	5.20	2.37	-5.72	3.56	0.59	10.13	-1.22	0.14	0.94	-1.74	0.14
572	-2.54	2.30	-0.88	0.54	3.81	-4.36	-1.16	-4.24	0.40	-2.30	8.29	1.37	0.16	-1.62	0.50	0.25
452	-2.65	-1.46	-14.47	-0.09	1.16	5.41	-5.01	0.08	3.71	-2.30	11.98	0.07	0.10	5.70	-1.91	0.31
647	3.22	6.07	2.65	-0.15	1.16	0.00	-3.69	-3.65	3.63	-2.30	-10.20	1.37	-0.10	1.77	0.55	0.33
365	0.81	-2.72	4.96	4.62	-2.82	-1.66	6.99	6.59	-5.31	3.48	-10.20	0.07	0.27	-3.84	-0.71	0.54
656	4.21	11.09	4.22	1.70	1.16	-1.87	0.27	8.19	-4.34	0.59	-21.30	0.07	-0.10	-3.71	0.35	0.55
98	2.48	3.56	11.58	1.65	-2.82	-1.24	-2.48	9.49	-4.83	0.59	-12.98	-1.22	-0.62	-3.30	0.72	0.59
9	8.16	1.05	-9.55	-0.10	-1.49	5.82	-4.90	8.21	-1.04	-2.30	0.89	-1.22	-2.03	-2.17	1.43	0.77
245	-0.58	-2.72	2.90	-0.10	2.49	-1.24	1.93	-3.79	3.46	0.59	-1.88	0.07	0.21	0.20	-0.68	0.84
600	-1.46	-0.21	-6.77	2.81	-1.49	2.29	5.45	-6.32	-2.28	-2.30	10.13	1.37	0.13	-1.56	1.07	0.85
608	1.26	4.82	6.13	-0.15	1.16	-2.28	-2.04	-4.98	0.98	-2.30	-4.66	1.37	-0.10	0.04	1.83	1.07
39	0.86	1.05	5.69	4.62	-2.82	-2.28	2.59	8.54	-6.10	0.59	-6.51	0.07	0.01	-4.81	-0.40	1.12

Appendix B - Sorted, Weighted Route Scores for All Evaluated Routes
Wolf Creek - Blackberry

Weights	6	4	8	4	2	3	5	9	3	2	10	1	1	3	1	
Route	Total Length	Angles Over 30 Degrees (count)	Length Not Along Existing Transmission Line	Length Through Previously Mined Area	Transmission Line Crossings	Stream Crossings	Wetlands in ROW	Sensitive Species Score	Cropland in ROW	Archaeological Sites within ROW	Residential Proximity Score	Public Facilities within 500 feet	Length Not Along Parcel Boundary	Floodplain in ROW	Total Length Karst	Total
630	-1.81	2.30	2.20	-0.09	3.81	-3.53	-6.77	0.17	1.90	-2.30	-0.03	1.37	0.24	3.06	0.61	1.13
414	-0.65	-5.23	7.80	2.81	-0.17	-3.53	2.26	-5.52	1.33	0.59	-0.03	1.37	0.35	-1.09	1.00	1.27
111	-2.24	-2.72	7.76	0.54	2.49	-4.99	-6.11	-1.73	1.19	-2.30	11.06	0.07	-0.32	-2.46	1.26	1.51
620	-0.22	1.05	-5.75	1.60	-1.49	2.50	5.67	-7.68	-1.07	-2.30	9.21	0.07	0.26	-1.12	0.85	1.59
643	-1.01	2.30	-11.19	0.54	1.16	3.54	-0.06	-3.13	1.15	-2.30	11.06	0.07	-0.28	0.00	-0.21	1.64
459	0.20	-0.21	3.00	-10.50	2.49	0.63	-8.21	1.66	5.23	0.59	-1.88	1.37	-0.13	8.12	-0.61	1.74
405	2.56	2.30	10.68	1.65	-2.82	-0.83	2.04	7.56	-3.91	3.48	-17.60	-1.22	-0.36	-2.09	0.45	1.89
507	-0.18	3.56	-5.97	-0.10	1.16	3.12	-1.05	-5.37	1.32	-2.30	7.36	0.07	-0.17	-0.27	0.78	1.97
369	-0.70	-1.46	4.01	2.35	-0.17	-2.70	3.14	8.45	-4.52	3.48	-3.73	-1.22	-0.14	-4.00	-0.71	2.08
628	1.30	3.56	6.40	-0.10	3.81	-3.32	-1.82	-3.62	1.13	-2.30	-4.66	1.37	-0.07	-1.01	1.62	2.29
184	-3.16	-6.49	1.61	2.81	-0.17	-2.28	2.92	-6.74	2.25	0.59	10.13	1.37	0.64	-0.29	-0.84	2.35
569	0.88	3.56	1.27	1.60	1.16	-3.12	3.25	-7.26	0.92	-2.30	0.89	1.37	0.67	-1.03	0.50	2.35
604	-2.97	1.05	-7.72	0.54	1.16	1.25	1.60	-4.46	-1.50	-2.30	16.61	0.07	-0.28	-1.73	1.07	2.37
43	-0.65	2.30	4.75	2.35	-0.17	-3.32	-1.27	10.41	-5.31	0.59	-0.03	-1.22	-0.40	-4.98	-0.40	2.64
418	-2.16	-3.98	6.86	0.54	2.49	-4.57	-1.60	-3.65	2.11	0.59	6.44	0.07	-0.06	-1.25	1.00	2.82
88	-0.06	-2.72	8.88	2.81	-0.17	-3.95	-1.93	-3.41	0.50	-2.30	4.59	1.37	0.06	-2.30	1.48	2.86
175	0.06	1.05	4.48	1.65	-2.82	0.42	2.70	6.33	-2.98	3.48	-7.43	-1.22	-0.07	-1.31	-1.39	2.95
543	-0.82	-1.46	-11.07	2.81	-1.49	4.78	6.55	-4.67	-0.67	-2.30	10.13	1.37	0.09	0.34	-0.61	2.98
551	1.90	3.56	1.82	-0.15	1.16	0.21	-0.94	-3.33	2.59	-2.30	-4.66	1.37	-0.15	1.96	0.16	3.22
650	0.83	4.82	-1.10	-0.09	3.81	-1.24	-8.09	1.69	4.64	-2.30	-5.58	1.37	0.21	4.79	-0.46	3.28
560	2.89	8.58	3.39	1.70	1.16	-1.66	3.03	8.51	-5.37	0.59	-15.75	0.07	-0.15	-3.52	-0.05	3.43
269	-0.51	-5.23	4.13	4.62	-2.82	-1.45	9.74	6.91	-6.34	3.48	-4.66	0.07	0.22	-3.65	-1.10	3.43
79	3.16	4.82	11.75	1.65	-2.82	-1.24	-2.15	9.67	-4.74	0.59	-12.98	-1.22	-0.65	-3.30	0.93	3.48
108	1.18	-1.46	9.91	1.60	-0.17	-3.74	-1.71	-4.76	1.71	-2.30	3.66	0.07	0.19	-1.86	1.26	3.60
640	2.41	3.56	-9.05	1.60	-1.49	4.78	4.35	-6.15	1.67	-2.30	3.66	0.07	0.23	0.59	-0.21	3.73
188	-4.67	-5.23	0.66	0.54	2.49	-3.32	-0.94	-4.88	3.04	0.59	16.61	0.07	0.23	-0.46	-0.84	3.88
611	-1.13	3.56	2.38	-0.09	3.81	-3.53	-6.44	0.36	1.99	-2.30	-0.03	1.37	0.21	3.06	0.82	4.02
450	0.46	2.30	-10.27	-0.10	1.16	5.62	0.05	-3.72	2.94	-2.30	7.36	0.07	-0.22	1.63	-0.90	4.09
395	0.02	-3.98	7.97	2.81	-0.17	-3.53	2.59	-5.34	1.42	0.59	-0.03	1.37	0.32	-1.09	1.21	4.16
366	2.73	-0.21	6.16	3.41	-2.82	-1.45	7.54	5.43	-4.01	3.48	-11.13	-1.22	0.37	-3.40	-0.71	4.18
92	-1.56	-1.46	7.93	0.54	2.49	-4.99	-5.78	-1.55	1.28	-2.30	11.06	0.07	-0.35	-2.46	1.48	4.40
648	3.94	6.07	3.10	-0.10	3.81	-1.04	-3.14	-2.11	3.87	-2.30	-10.20	1.37	-0.10	0.72	0.55	4.43
601	0.45	2.30	-5.57	1.60	-1.49	2.50	6.00	-7.49	-0.98	-2.30	9.21	0.07	0.23	-1.12	1.07	4.48
547	-2.33	-0.21	-12.02	0.54	1.16	3.74	2.70	-2.81	0.12	-2.30	16.61	0.07	-0.33	0.17	-0.61	4.51
99	3.20	3.56	12.03	1.70	-0.17	-2.28	-1.93	11.03	-4.58	0.59	-12.98	-1.22	-0.63	-4.36	0.72	4.69
40	2.78	3.56	6.89	3.41	-2.82	-2.08	3.14	7.38	-4.79	0.59	-7.43	-1.22	0.11	-4.37	-0.40	4.75
386	3.23	3.56	10.85	1.65	-2.82	-0.83	2.37	7.74	-3.82	3.48	-17.60	-1.22	-0.40	-2.09	0.67	4.78
415	1.26	-2.72	9.00	1.60	-0.17	-3.32	2.81	-6.69	2.63	0.59	-0.96	0.07	0.45	-0.65	1.00	4.91
273	-2.01	-3.98	3.19	2.35	-0.17	-2.49	5.89	8.77	-5.56	3.48	1.81	-1.22	-0.19	-3.82	-1.10	4.95
31	0.59	-3.98	4.58	2.81	-0.17	-1.45	-0.83	-1.75	2.11	-2.30	4.59	1.37	0.01	-0.40	-0.19	4.99
609	1.98	4.82	6.58	-0.10	3.81	-3.32	-1.49	-3.44	1.22	-2.30	-4.66	1.37	-0.10	-1.01	1.83	5.18
22	3.80	3.56	7.45	1.65	-2.82	1.25	-1.05	11.32	-3.12	0.59	-12.98	-1.22	-0.70	-1.40	-0.74	5.61
399	-1.49	-2.72	7.03	0.54	2.49	-4.57	-1.27	-3.48	2.20	0.59	6.44	0.07	-0.09	-1.25	1.21	5.70
346	1.49	1.05	5.13	4.62	-2.82	-1.66	7.32	6.77	-5.22	3.48	-10.20	0.07	0.24	-3.84	-0.49	5.95

Appendix B - Sorted, Weighted Route Scores for All Evaluated Routes
Wolf Creek - Blackberry

Weights	6	4	8	4	2	3	5	9	3	2	10	1	1	3	1	
Route	Total Length	Angles Over 30 Degrees (count)	Length Not Along Existing Transmission Line	Length Through Previously Mined Area	Transmission Line Crossings	Stream Crossings	Wetlands in ROW	Sensitive Species Score	Cropland in ROW	Archaeological Sites within ROW	Residential Proximity Score	Public Facilities within 500 feet	Length Not Along Parcel Boundary	Floodplain in ROW	Total Length Karst	Total
406	3.28	2.30	11.13	1.70	-0.17	-1.87	2.59	9.09	-3.67	3.48	-17.60	-1.22	-0.37	-3.15	0.45	5.99
185	-1.24	-3.98	2.81	1.60	-0.17	-2.08	3.47	-7.91	3.55	0.59	9.21	0.07	0.74	0.15	-0.84	5.99
554	-0.49	2.30	-1.92	-0.09	3.81	-1.04	-5.45	2.01	3.61	-2.30	-0.03	1.37	0.16	4.96	-0.85	6.04
491	0.04	-2.72	0.99	2.81	1.16	-1.87	0.49	-4.74	1.62	-2.30	7.36	2.66	0.28	0.40	0.00	6.19
89	1.86	-0.21	10.08	1.60	-0.17	-3.74	-1.38	-4.58	1.80	-2.30	3.66	0.07	0.16	-1.86	1.48	6.49
35	-0.92	-2.72	3.63	0.54	2.49	-2.49	-4.68	0.11	2.90	-2.30	11.06	0.07	-0.40	-0.55	-0.19	6.53
544	1.09	1.05	-9.87	1.60	-1.49	4.99	7.10	-5.83	0.64	-2.30	9.21	0.07	0.19	0.78	-0.61	6.62
482	3.25	4.82	3.86	1.65	-1.49	0.83	0.27	8.34	-3.61	0.59	-10.20	0.07	-0.43	-0.60	-0.55	6.81
672	4.01	3.56	4.34	4.62	-1.49	-1.24	4.57	8.60	-5.94	0.59	-12.98	1.37	-0.09	-3.13	0.13	6.92
216	-3.58	-5.23	-5.23	2.81	-2.82	3.33	5.67	-6.97	0.35	0.59	18.45	0.07	0.20	-0.40	-0.28	6.98
176	0.78	1.05	4.94	1.70	-0.17	-0.62	3.25	7.87	-2.74	3.48	-7.43	-1.22	-0.08	-2.36	-1.39	7.05
270	1.41	-2.72	5.33	3.41	-2.82	-1.24	10.29	5.75	-5.04	3.48	-5.58	-1.22	0.32	-3.21	-1.10	7.07
224	-0.86	-0.21	7.67	-0.15	-0.17	-1.24	-1.82	-5.61	3.61	0.59	3.66	0.07	-0.03	1.22	0.49	7.23
552	2.62	3.56	2.28	-0.10	3.81	-0.83	-0.39	-1.79	2.84	-2.30	-4.66	1.37	-0.15	0.91	0.16	7.32
350	-0.02	2.30	4.18	2.35	-0.17	-2.70	3.47	8.64	-4.43	3.48	-3.73	-1.22	-0.17	-4.00	-0.49	7.49
80	3.88	4.82	12.21	1.70	-0.17	-2.28	-1.60	11.21	-4.49	0.59	-12.98	-1.22	-0.66	-4.36	0.93	7.58
721	2.54	1.05	7.18	2.81	1.16	-3.12	-0.17	-3.52	0.70	-2.30	-2.81	2.66	-0.01	-0.38	1.84	7.64
318	-1.42	-6.49	7.32	2.81	-0.17	-3.12	5.23	-5.05	0.25	0.59	6.44	1.37	0.27	-1.14	0.78	7.68
165	-2.48	-2.72	1.78	2.81	-0.17	-2.28	3.25	-6.56	2.34	0.59	10.13	1.37	0.61	-0.29	-0.63	7.76
396	1.93	-1.46	9.18	1.60	-0.17	-3.32	3.14	-6.50	2.72	0.59	-0.96	0.07	0.42	-0.65	1.21	7.80
495	-1.47	-1.46	0.04	0.54	3.81	-2.91	-3.25	-2.88	2.41	-2.30	13.83	1.37	-0.13	0.25	-0.01	7.84
712	5.75	8.58	10.06	1.65	-1.49	-0.41	-0.39	9.57	-4.53	0.59	-20.37	0.07	-0.72	-1.40	1.29	8.25
309	1.79	1.05	10.19	1.65	-2.82	-0.41	5.01	8.04	-4.98	3.48	-11.13	-1.22	-0.44	-2.14	0.23	8.30
156	0.73	4.82	4.66	1.65	-2.82	0.42	3.03	6.52	-2.89	3.48	-7.43	-1.22	-0.10	-1.31	-1.17	8.36
220	-5.09	-3.98	-6.18	0.54	-0.17	2.29	1.82	-5.10	1.13	0.59	24.93	-1.22	-0.21	-0.55	-0.28	8.53
676	2.50	4.82	3.39	2.35	1.16	-2.28	0.82	10.46	-5.15	0.59	-6.51	0.07	-0.50	-3.30	0.13	8.55
32	2.50	-1.46	5.78	1.60	-0.17	-1.24	-0.28	-2.92	3.41	-2.30	3.66	0.07	0.11	0.04	-0.19	8.62
250	0.17	-1.46	4.30	4.62	-2.82	-1.45	10.07	7.09	-6.25	3.48	-4.66	0.07	0.19	-3.65	-0.88	8.83
387	3.95	3.56	11.30	1.70	-0.17	-1.87	2.92	9.28	-3.58	3.48	-17.60	-1.22	-0.40	-3.15	0.67	8.88
322	-2.93	-5.23	6.37	0.54	2.49	-4.15	1.38	-3.18	1.03	0.59	12.91	0.07	-0.14	-1.29	0.78	9.23
725	1.04	2.30	6.24	0.54	3.81	-4.15	-3.91	-1.65	1.48	-2.30	3.66	1.37	-0.42	-0.55	1.84	9.28
169	-3.99	-1.46	0.84	0.54	2.49	-3.32	-0.61	-4.70	3.13	0.59	16.61	0.07	0.20	-0.46	-0.63	9.29
347	3.40	3.56	6.33	3.41	-2.82	-1.45	7.87	5.61	-3.92	3.48	-11.13	-1.22	0.34	-3.40	-0.49	9.58
23	4.51	3.56	7.90	1.70	-0.17	0.21	-0.50	12.86	-2.88	0.59	-12.98	-1.22	-0.71	-2.46	-0.74	9.70
576	2.69	1.05	3.51	4.62	-1.49	-1.04	7.32	8.92	-6.97	0.59	-7.43	1.37	-0.14	-2.96	-0.26	9.79
338	1.21	-3.98	4.02	2.81	-0.17	-0.83	3.91	-3.52	2.99	0.59	0.89	1.37	0.24	0.59	-0.29	9.84
197	-2.91	-3.98	-5.06	2.81	-2.82	3.33	6.00	-6.79	0.44	0.59	18.45	0.07	0.17	-0.40	-0.06	9.87
492	1.95	-0.21	2.19	1.60	1.16	-1.66	1.15	-5.90	2.92	-2.30	6.44	1.37	0.38	0.84	0.00	9.94
205	-0.19	1.05	7.84	-0.15	-0.17	-1.24	-1.49	-5.44	3.70	0.59	3.66	0.07	-0.06	1.22	0.71	10.11
227	-3.25	-1.46	3.92	-0.09	2.49	-2.49	-6.22	-0.28	4.62	0.59	8.29	0.07	0.28	4.22	-0.52	10.16
254	-1.34	-0.21	3.36	2.35	-0.17	-2.49	6.22	8.96	-5.47	3.48	1.81	-1.22	-0.22	-3.82	-0.88	10.35
329	4.42	3.56	6.89	1.65	-2.82	1.87	3.69	9.55	-2.24	3.48	-16.67	-1.22	-0.48	-0.41	-0.83	10.45
299	-0.75	-5.23	7.49	2.81	-0.17	-3.12	5.56	-4.86	0.34	0.59	6.44	1.37	0.24	-1.14	0.99	10.57
217	-1.67	-2.72	-4.03	1.60	-2.82	3.54	6.22	-8.13	1.65	0.59	17.53	-1.22	0.30	0.04	-0.28	10.62

Appendix B - Sorted, Weighted Route Scores for All Evaluated Routes
Wolf Creek - Blackberry

Weights	6	4	8	4	2	3	5	9	3	2	10	1	1	3	1	
Route	Total Length	Angles Over 30 Degrees (count)	Length Not Along Existing Transmission Line	Length Through Previously Mined Area	Transmission Line Crossings	Stream Crossings	Wetlands in ROW	Sensitive Species Score	Cropland in ROW	Archaeological Sites within ROW	Residential Proximity Score	Public Facilities within 500 feet	Length Not Along Parcel Boundary	Floodplain in ROW	Total Length Karst	Total
673	5.92	6.07	5.54	3.41	-1.49	-1.04	5.23	7.44	-4.63	0.59	-13.90	0.07	0.01	-2.71	0.13	10.65
702	3.22	2.30	7.36	2.81	1.16	-3.12	0.27	-3.33	0.79	-2.30	-2.81	2.66	-0.04	-0.38	2.05	10.65
523	-0.38	-1.46	-5.85	2.81	-1.49	3.74	3.25	-4.96	-0.28	-2.30	15.68	1.37	-0.15	0.29	0.56	10.83
483	3.97	4.82	4.32	1.70	1.16	-0.21	0.93	9.87	-3.37	0.59	-10.20	0.07	-0.44	-1.65	-0.55	11.02
531	2.34	3.56	7.05	-0.15	1.16	-0.83	-4.24	-3.60	2.98	-2.30	0.89	1.37	-0.39	1.91	1.33	11.07
693	6.43	9.84	10.23	1.65	-1.49	-0.41	-0.06	9.75	-4.44	0.59	-20.37	0.07	-0.75	-1.40	1.51	11.14
290	2.46	2.30	10.37	1.65	-2.82	-0.41	5.34	8.22	-4.89	3.48	-11.13	-1.22	-0.47	-2.14	0.45	11.19
319	0.49	-3.98	8.52	1.60	-0.17	-2.91	5.78	-6.20	1.55	0.59	5.51	0.07	0.37	-0.70	0.78	11.32
580	1.18	2.30	2.56	2.35	1.16	-2.08	3.47	10.78	-6.19	0.59	-0.96	0.07	-0.55	-3.12	-0.26	11.33
225	-0.14	-0.21	8.12	-0.10	2.49	-2.28	-1.27	-4.08	3.85	0.59	3.66	0.07	-0.03	0.17	0.49	11.33
342	-0.30	-2.72	3.07	0.54	2.49	-1.87	0.05	-1.66	3.78	0.59	7.36	0.07	-0.18	0.44	-0.29	11.38
722	4.46	3.56	8.38	1.60	1.16	-2.91	0.49	-4.68	2.00	-2.30	-3.73	1.37	0.09	0.06	1.84	11.39
166	-0.57	-0.21	2.98	1.60	-0.17	-2.08	3.80	-7.72	3.64	0.59	9.21	0.07	0.71	0.15	-0.63	11.39
201	-4.42	-2.72	-6.00	0.54	-0.17	2.29	2.15	-4.92	1.22	0.59	24.93	-1.22	-0.24	-0.55	-0.06	11.41
472	0.72	1.05	1.16	2.81	1.16	-1.87	0.82	-4.55	1.71	-2.30	7.36	2.66	0.25	0.40	0.21	11.60
140	-2.26	-5.23	-9.36	2.81	-2.82	5.82	6.99	-5.13	2.06	0.59	18.45	0.07	0.13	1.50	-1.74	11.89
303	-2.26	-3.98	6.55	0.54	2.49	-4.15	1.71	-3.00	1.12	0.59	12.91	0.07	-0.17	-1.29	0.99	12.11
706	1.71	3.56	6.41	0.54	3.81	-4.15	-3.58	-1.47	1.57	-2.30	3.66	1.37	-0.45	-0.55	2.05	12.17
463	3.93	8.58	4.04	1.65	-1.49	0.83	0.60	8.52	-3.52	0.59	-10.20	0.07	-0.46	-0.60	-0.33	12.21
148	0.45	-0.21	3.55	-0.15	-0.17	1.25	-0.39	-3.78	5.32	0.59	3.66	0.07	-0.11	3.12	-0.97	12.25
653	4.69	7.33	4.51	4.62	-1.49	-1.24	4.90	8.79	-5.84	0.59	-12.98	1.37	-0.12	-3.13	0.35	12.33
310	2.51	1.05	10.65	1.70	-0.17	-1.45	5.56	9.58	-4.74	3.48	-11.13	-1.22	-0.45	-3.19	0.23	12.40
157	1.45	4.82	5.11	1.70	-0.17	-0.62	3.58	8.05	-2.65	3.48	-7.43	-1.22	-0.11	-2.36	-1.17	12.45
251	2.08	1.05	5.51	3.41	-2.82	-1.24	10.63	5.93	-4.95	3.48	-5.58	-1.22	0.29	-3.21	-0.88	12.47
713	6.47	8.58	10.51	1.70	1.16	-1.45	0.27	11.10	-4.29	0.59	-20.37	0.07	-0.73	-2.44	1.29	12.47
527	-1.89	-0.21	-6.79	0.54	1.16	2.71	-0.50	-3.09	0.51	-2.30	22.15	0.07	-0.57	0.14	0.56	12.49
242	-0.11	-6.49	3.19	2.81	-0.17	-0.62	6.55	-3.20	1.96	0.59	6.44	1.37	0.19	0.77	-0.68	12.59
6	8.64	-2.72	-9.25	2.81	-4.14	6.45	-0.17	8.80	-2.55	-2.30	9.21	0.07	-2.04	-1.61	1.43	12.63
14	11.36	2.30	3.65	-0.15	-1.49	1.87	-7.65	10.15	0.72	-2.30	-5.58	0.07	-2.27	0.01	2.20	12.88
208	-2.58	-0.21	4.09	-0.09	2.49	-2.49	-5.89	-0.10	4.71	0.59	8.29	0.07	0.25	4.22	-0.31	13.05
233	3.10	1.05	6.07	1.65	-2.82	2.08	6.33	9.87	-3.28	3.48	-11.13	-1.22	-0.52	-0.24	-1.23	13.20
476	-0.79	2.30	0.22	0.54	3.81	-2.91	-2.92	-2.69	2.50	-2.30	13.83	1.37	-0.16	0.25	0.21	13.25
577	4.60	3.56	4.71	3.41	-1.49	-0.83	7.87	7.76	-5.67	0.59	-8.35	0.07	-0.04	-2.52	-0.26	13.42
339	3.12	-1.46	5.22	1.60	-0.17	-0.62	4.46	-4.69	4.30	0.59	-0.03	0.07	0.34	1.03	-0.29	13.47
198	-0.99	-1.46	-3.85	1.60	-2.82	3.54	6.55	-7.95	1.74	0.59	17.53	-1.22	0.27	0.04	-0.06	13.51
144	-3.78	-3.98	-10.30	0.54	-0.17	4.78	3.25	-3.27	2.84	0.59	24.93	-1.22	-0.29	1.35	-1.74	13.54
504	0.29	-0.21	-5.67	2.81	-1.49	3.74	3.58	-4.78	-0.19	-2.30	15.68	1.37	-0.19	0.29	0.78	13.72
657	3.17	8.58	3.57	2.35	1.16	-2.28	1.15	10.64	-5.06	0.59	-6.51	0.07	-0.53	-3.30	0.35	13.95
512	3.01	4.82	7.23	-0.15	1.16	-0.83	-3.91	-3.43	3.07	-2.30	0.89	1.37	-0.42	1.91	1.54	13.96
534	-0.06	2.30	3.30	-0.09	3.81	-2.08	-8.65	1.72	3.99	-2.30	5.51	1.37	-0.08	4.93	0.32	14.01
625	1.77	-0.21	6.70	2.81	1.16	-2.70	2.81	-3.03	-0.37	-2.30	3.66	2.66	-0.09	-0.43	1.62	14.06
10	7.13	-1.46	-10.20	0.54	-1.49	5.41	-4.02	10.66	-1.76	-2.30	15.68	-1.22	-2.46	-1.76	1.43	14.17
300	1.16	-2.72	8.69	1.60	-0.17	-2.91	6.11	-6.02	1.64	0.59	5.51	0.07	0.34	-0.70	0.99	14.21
206	0.53	1.05	8.30	-0.10	2.49	-2.28	-0.94	-3.89	3.94	0.59	3.66	0.07	-0.06	0.17	0.71	14.22

Appendix B - Sorted, Weighted Route Scores for All Evaluated Routes
Wolf Creek - Blackberry

Weights	6	4	8	4	2	3	5	9	3	2	10	1	1	3	1	
Route	Total Length	Angles Over 30 Degrees (count)	Length Not Along Existing Transmission Line	Length Through Previously Mined Area	Transmission Line Crossings	Stream Crossings	Wetlands in ROW	Sensitive Species Score	Cropland in ROW	Archaeological Sites within ROW	Residential Proximity Score	Public Facilities within 500 feet	Length Not Along Parcel Boundary	Floodplain in ROW	Total Length Karst	Total
246	-1.62	-5.23	2.24	0.54	2.49	-1.66	2.81	-1.34	2.74	0.59	12.91	0.07	-0.22	0.61	-0.68	14.24
703	5.13	4.82	8.56	1.60	1.16	-2.91	0.82	-4.50	2.09	-2.30	-3.73	1.37	0.06	0.06	2.05	14.28
330	5.14	3.56	7.34	1.70	-0.17	0.83	4.24	11.09	-2.00	3.48	-16.67	-1.22	-0.48	-1.47	-0.83	14.55
524	1.53	1.05	-4.65	1.60	-1.49	3.95	3.91	-6.13	1.02	-2.30	14.76	0.07	-0.06	0.73	0.56	14.57
616	4.99	7.33	9.57	1.65	-1.49	0.00	2.59	10.05	-5.61	0.59	-13.90	0.07	-0.80	-1.45	1.07	14.66
151	-1.94	-1.46	-0.21	-0.09	2.49	0.00	-4.90	1.54	6.33	0.59	8.29	0.07	0.20	6.14	-1.98	15.07
557	3.37	4.82	3.69	4.62	-1.49	-1.04	7.65	9.11	-6.88	0.59	-7.43	1.37	-0.17	-2.96	-0.05	15.19
532	3.05	3.56	7.50	-0.10	3.81	-1.87	-3.58	-2.07	3.22	-2.30	0.89	1.37	-0.39	0.86	1.33	15.28
291	3.18	2.30	10.82	1.70	-0.17	-1.45	5.89	9.76	-4.65	3.48	-11.13	-1.22	-0.48	-3.19	0.45	15.29
473	2.63	3.56	2.36	1.60	1.16	-1.66	1.49	-5.71	3.01	-2.30	6.44	1.37	0.35	0.84	0.21	15.35
694	7.15	9.84	10.68	1.70	1.16	-1.45	0.60	11.29	-4.20	0.59	-20.37	0.07	-0.76	-2.44	1.51	15.37
508	-1.22	1.05	-6.62	0.54	1.16	2.71	-0.17	-2.91	0.60	-2.30	22.15	0.07	-0.60	0.14	0.78	15.37
141	-0.35	-2.72	-8.15	1.60	-2.82	6.03	7.65	-6.29	3.36	0.59	17.53	-1.22	0.22	1.94	-1.74	15.64
629	0.26	1.05	5.75	0.54	3.81	-3.74	-0.94	-1.16	0.41	-2.30	10.13	1.37	-0.50	-0.60	1.62	15.70
17	8.96	1.05	-0.10	-0.09	1.16	0.63	-12.17	15.47	1.73	-2.30	-0.96	0.07	-1.97	3.03	1.19	15.70
447	0.93	-1.46	-9.97	2.81	-1.49	6.24	4.68	-3.12	1.43	-2.30	15.68	1.37	-0.23	2.21	-0.90	15.87
134	10.64	-5.23	-1.90	-10.50	-0.17	6.86	-1.38	15.23	2.18	3.48	-10.20	-1.22	-1.53	9.66	0.07	15.99
654	6.60	9.84	5.71	3.41	-1.49	-1.04	5.56	7.62	-4.54	0.59	-13.90	0.07	-0.02	-2.71	0.35	16.05
455	3.65	3.56	2.92	-0.15	1.16	1.67	-2.81	-1.78	4.69	-2.30	0.89	1.37	-0.47	3.81	-0.13	16.09
645	4.41	2.30	3.40	2.81	1.16	-0.41	1.49	-1.51	2.36	-2.30	-1.88	2.66	-0.12	1.28	0.55	16.20
7	10.55	-0.21	-8.05	1.60	-4.14	6.66	0.38	7.63	-1.24	-2.30	8.29	-1.22	-1.94	-1.17	1.43	16.27
243	1.81	-3.98	4.39	1.60	-0.17	-0.41	7.21	-4.37	3.26	0.59	5.51	0.07	0.29	1.21	-0.68	16.34
149	1.17	-0.21	4.00	-0.10	2.49	0.21	0.16	-2.24	5.56	0.59	3.66	0.07	-0.11	2.07	-0.97	16.34
464	4.65	8.58	4.49	1.70	1.16	-0.21	1.27	10.06	-3.28	0.59	-10.20	0.07	-0.47	-1.65	-0.33	16.42
96	3.67	-0.21	12.33	4.62	-2.82	-1.66	2.70	11.62	-6.09	0.59	-4.66	0.07	-0.65	-3.79	0.72	16.44
561	1.86	6.07	2.74	2.35	1.16	-2.08	3.80	10.96	-6.10	0.59	-0.96	0.07	-0.58	-3.12	-0.05	16.72
636	7.62	9.84	6.27	1.65	-1.49	2.29	1.27	11.57	-2.87	0.59	-19.45	0.07	-0.84	0.28	0.01	16.81
515	0.62	3.56	3.48	-0.09	3.81	-2.08	-8.32	1.91	4.09	-2.30	5.51	1.37	-0.11	4.93	0.53	16.91
606	2.45	1.05	6.87	2.81	1.16	-2.70	3.14	-2.85	-0.28	-2.30	3.66	2.66	-0.12	-0.43	1.83	16.95
15	12.07	2.30	4.10	-0.10	1.16	0.83	-7.10	11.69	0.96	-2.30	-5.58	0.07	-2.28	-1.04	2.20	16.98
123	8.50	-1.46	-10.29	-0.15	-4.14	9.15	0.16	6.78	0.65	0.59	8.29	-1.22	-2.16	1.91	0.66	17.27
451	-0.58	-0.21	-10.92	0.54	1.16	5.20	0.82	-1.26	2.21	-2.30	22.15	0.07	-0.65	2.04	-0.90	17.39
234	3.82	1.05	6.52	1.70	-0.17	1.04	6.99	11.41	-3.04	3.48	-11.13	-1.22	-0.53	-1.29	-1.23	17.42
505	2.20	2.30	-4.47	1.60	-1.49	3.95	4.24	-5.94	1.11	-2.30	14.76	0.07	-0.09	0.73	0.78	17.46
597	5.66	8.58	9.75	1.65	-1.49	0.00	2.92	10.24	-5.52	0.59	-13.90	0.07	-0.83	-1.45	1.29	17.55
126	6.11	-5.23	-14.04	-0.09	-1.49	7.90	-4.24	12.11	1.67	0.59	12.91	-1.22	-1.85	4.91	-0.35	17.69
403	3.75	-1.46	11.42	4.62	-2.82	-1.24	7.21	9.69	-5.17	3.48	-9.28	0.07	-0.39	-2.58	0.45	17.75
626	3.69	2.30	7.90	1.60	1.16	-2.49	3.47	-4.20	0.93	-2.30	2.74	1.37	0.01	0.00	1.62	17.79
649	2.90	3.56	2.45	0.54	3.81	-1.45	-2.26	0.35	3.15	-2.30	4.59	1.37	-0.53	1.13	0.55	17.85
100	2.16	1.05	11.38	2.35	-0.17	-2.70	-1.16	13.48	-5.31	0.59	1.81	-1.22	-1.06	-3.95	0.72	17.98
513	3.73	4.82	7.68	-0.10	3.81	-1.87	-3.25	-1.89	3.32	-2.30	0.89	1.37	-0.42	0.86	1.54	18.18
610	0.94	2.30	5.92	0.54	3.81	-3.74	-0.61	-0.99	0.50	-2.30	10.13	1.37	-0.53	-0.60	1.83	18.58
617	5.71	7.33	10.02	1.70	1.16	-1.04	3.14	11.59	-5.37	0.59	-13.90	0.07	-0.81	-2.50	1.07	18.76
173	1.25	-2.72	5.23	4.62	-2.82	0.00	7.87	8.46	-4.25	3.48	0.89	0.07	-0.10	-1.80	-1.39	18.81

Appendix B - Sorted, Weighted Route Scores for All Evaluated Routes
Wolf Creek - Blackberry

Weights	6	4	8	4	2	3	5	9	3	2	10	1	1	3	1	
Route	Total Length	Angles Over 30 Degrees (count)	Length Not Along Existing Transmission Line	Length Through Previously Mined Area	Transmission Line Crossings	Stream Crossings	Wetlands in ROW	Sensitive Species Score	Cropland in ROW	Archaeological Sites within ROW	Residential Proximity Score	Public Facilities within 500 feet	Length Not Along Parcel Boundary	Floodplain in ROW	Total Length Karst	Total
558	5.28	7.33	4.89	3.41	-1.49	-0.83	8.31	7.94	-5.58	0.59	-8.35	0.07	-0.07	-2.52	-0.05	18.94
458	1.26	2.30	-0.83	-0.09	3.81	0.42	-7.21	3.56	5.70	-2.30	5.51	1.37	-0.16	6.83	-1.14	19.03
549	3.09	-0.21	2.57	2.81	1.16	-0.21	4.24	-1.19	1.33	-2.30	3.66	2.66	-0.17	1.47	0.16	19.08
133	8.96	-3.98	3.44	-10.50	-0.17	3.12	-7.43	13.69	3.20	3.48	-0.96	0.07	-2.08	7.35	0.94	19.13
407	2.24	-0.21	10.48	2.35	-0.17	-2.28	3.36	11.55	-4.39	3.48	-2.81	-1.22	-0.80	-2.74	0.45	19.29
77	4.35	1.05	12.50	4.62	-2.82	-1.66	3.03	11.80	-6.00	0.59	-4.66	0.07	-0.68	-3.79	0.93	19.34
448	2.85	1.05	-8.77	1.60	-1.49	6.45	5.23	-4.28	2.73	-2.30	14.76	0.07	-0.13	2.63	-0.90	19.49
540	6.30	7.33	5.45	1.65	-1.49	2.50	4.02	11.89	-3.90	0.59	-13.90	0.07	-0.88	0.45	-0.39	19.68
441	13.83	-1.46	-2.52	-10.50	1.16	7.28	-3.80	17.23	1.56	0.59	-12.98	0.07	-1.89	10.35	0.91	19.84
646	6.32	4.82	4.60	1.60	1.16	-0.21	2.15	-2.68	3.67	-2.30	-2.81	1.37	-0.02	1.72	0.55	19.94
456	4.37	3.56	3.38	-0.10	3.81	0.63	-2.26	-0.24	4.93	-2.30	0.89	1.37	-0.47	2.76	-0.13	20.19
97	5.59	2.30	13.53	3.41	-2.82	-1.45	3.36	10.45	-4.79	0.59	-5.58	-1.22	-0.55	-3.35	0.72	20.19
177	-0.26	-1.46	4.28	2.35	-0.17	-1.04	4.02	10.32	-3.46	3.48	7.36	-1.22	-0.51	-1.95	-1.39	20.35
553	1.58	1.05	1.62	0.54	3.81	-1.24	0.38	0.67	2.11	-2.30	10.13	1.37	-0.58	1.30	0.16	20.60
384	4.42	-0.21	11.60	4.62	-2.82	-1.24	7.54	9.87	-5.08	3.48	-9.28	0.07	-0.42	-2.58	0.67	20.64
607	4.36	3.56	8.07	1.60	1.16	-2.49	3.80	-4.01	1.02	-2.30	2.74	1.37	-0.02	0.00	1.83	20.68
637	8.34	9.84	6.72	1.70	1.16	1.25	1.82	13.09	-2.63	0.59	-19.45	0.07	-0.84	-0.77	0.01	20.90
81	2.84	2.30	11.55	2.35	-0.17	-2.70	-0.72	13.66	-5.22	0.59	1.81	-1.22	-1.09	-3.95	0.93	20.99
430	11.70	2.30	-10.91	-0.15	-2.82	9.57	-2.15	8.79	0.03	-2.30	5.51	0.07	-2.52	2.60	1.50	21.23
404	5.66	1.05	12.62	3.41	-2.82	-1.04	7.76	8.52	-3.87	3.48	-10.20	-1.22	-0.29	-2.14	0.45	21.39
20	4.99	-0.21	8.20	4.62	-2.82	0.83	4.13	13.45	-4.39	0.59	-4.66	0.07	-0.73	-1.89	-0.74	21.46
124	9.22	-1.46	-9.84	-0.10	-1.49	8.11	0.82	8.32	0.90	0.59	8.29	-1.22	-2.17	0.86	0.66	21.48
598	6.38	8.58	10.20	1.70	1.16	-1.04	3.47	11.77	-5.28	0.59	-13.90	0.07	-0.84	-2.50	1.29	21.65
433	9.31	-1.46	-14.66	-0.09	-0.17	8.32	-6.55	14.12	1.04	-2.30	10.13	0.07	-2.21	5.62	0.49	21.66
388	2.91	1.05	10.65	2.35	-0.17	-2.28	3.69	11.74	-4.30	3.48	-2.81	-1.22	-0.83	-2.74	0.67	22.19
174	3.16	-0.21	6.43	3.41	-2.82	0.21	8.42	7.30	-2.95	3.48	-0.03	-1.22	0.00	-1.36	-1.39	22.45
550	5.00	2.30	3.77	1.60	1.16	0.00	4.79	-2.36	2.63	-2.30	2.74	1.37	-0.07	1.91	0.16	22.71
480	4.44	1.05	4.61	4.62	-1.49	0.42	5.56	10.47	-4.88	0.59	-1.88	1.37	-0.46	-1.09	-0.55	22.78
24	3.48	1.05	7.25	2.35	-0.17	-0.21	0.27	15.31	-3.60	0.59	1.81	-1.22	-1.14	-2.05	-0.74	23.00
222	0.33	-3.98	8.42	2.81	-0.17	-1.66	3.36	-3.50	2.34	0.59	11.98	1.37	-0.05	0.73	0.49	23.08
78	6.26	3.56	13.70	3.41	-2.82	-1.45	3.69	10.63	-4.70	0.59	-5.58	-1.22	-0.58	-3.35	0.93	23.08
440	12.15	-0.21	2.81	-10.50	1.16	3.54	-9.75	15.69	2.57	0.59	-3.73	1.37	-2.44	8.04	1.78	23.08
213	3.54	3.56	11.29	1.65	-2.82	1.04	3.14	9.59	-2.89	3.48	-5.58	-1.22	-0.76	-0.27	-0.06	23.69
541	7.02	7.33	5.90	1.70	1.16	1.46	4.57	13.41	-3.66	0.59	-13.90	0.07	-0.89	-0.60	-0.39	23.77
307	2.98	-2.72	10.94	4.62	-2.82	-0.83	10.18	10.17	-6.25	3.48	-2.81	0.07	-0.47	-2.63	0.23	24.17
154	1.92	1.05	5.40	4.62	-2.82	0.00	8.20	8.64	-4.16	3.48	0.89	0.07	-0.13	-1.80	-1.17	24.21
710	6.94	4.82	10.80	4.62	-1.49	-0.83	4.90	11.69	-5.80	0.59	-12.05	1.37	-0.75	-1.87	1.29	24.23
484	2.93	2.30	3.66	2.35	1.16	-0.62	1.71	12.33	-4.09	0.59	4.59	0.07	-0.87	-1.26	-0.55	24.31
385	6.34	2.30	12.80	3.41	-2.82	-1.04	8.20	8.71	-3.78	3.48	-10.20	-1.22	-0.32	-2.14	0.67	24.39
226	-1.18	-2.72	7.47	0.54	2.49	-2.70	-0.50	-1.63	3.13	0.59	18.45	0.07	-0.46	0.58	0.49	24.62
21	6.90	2.30	9.40	3.41	-2.82	1.04	4.68	12.28	-3.08	0.59	-5.58	-1.22	-0.63	-1.45	-0.74	25.10
431	12.42	2.30	-10.46	-0.10	-0.17	8.53	-1.60	10.32	0.27	-2.30	5.51	0.07	-2.53	1.55	1.50	25.33
311	1.47	-1.46	9.99	2.35	-0.17	-1.87	6.33	12.03	-5.47	3.48	3.66	-1.22	-0.88	-2.79	0.23	25.70
714	5.44	6.07	9.86	2.35	1.16	-1.87	1.04	13.56	-5.02	0.59	-5.58	0.07	-1.16	-2.05	1.29	25.75

Appendix B - Sorted, Weighted Route Scores for All Evaluated Routes
Wolf Creek - Blackberry

Weights	6	4	8	4	2	3	5	9	3	2	10	1	1	3	1	
Route	Total Length	Angles Over 30 Degrees (count)	Length Not Along Existing Transmission Line	Length Through Previously Mined Area	Transmission Line Crossings	Stream Crossings	Wetlands in ROW	Sensitive Species Score	Cropland in ROW	Archaeological Sites within ROW	Residential Proximity Score	Public Facilities within 500 feet	Length Not Along Parcel Boundary	Floodplain in ROW	Total Length Karst	Total
158	0.41	2.30	4.46	2.35	-0.17	-1.04	4.35	10.51	-3.37	3.48	7.36	-1.22	-0.54	-1.95	-1.17	25.75
203	1.00	-2.72	8.59	2.81	-0.17	-1.66	3.69	-3.31	2.43	0.59	11.98	1.37	-0.08	0.73	0.71	25.97
327	5.61	-0.21	7.64	4.62	-2.82	1.46	8.86	11.68	-3.51	3.48	-8.35	0.07	-0.50	-0.90	-0.83	26.30
481	6.36	3.56	5.81	3.41	-1.49	0.63	6.11	9.31	-3.58	0.59	-2.81	0.07	-0.36	-0.65	-0.55	26.42
194	4.21	4.82	11.47	1.65	-2.82	1.04	3.47	9.77	-2.80	3.48	-5.58	-1.22	-0.79	-0.27	0.16	26.59
223	2.24	-1.46	9.62	1.60	-0.17	-1.45	4.02	-4.65	3.64	0.59	11.06	0.07	0.05	1.17	0.49	26.83
529	3.53	-0.21	7.80	2.81	1.16	-1.24	1.04	-1.48	1.72	-2.30	9.21	2.66	-0.41	1.42	1.33	27.04
288	3.65	-1.46	11.11	4.62	-2.82	-0.83	10.51	10.35	-6.16	3.48	-2.81	0.07	-0.50	-2.63	0.45	27.05
691	7.62	6.07	10.98	4.62	-1.49	-0.83	5.23	11.88	-5.71	0.59	-12.05	1.37	-0.78	-1.87	1.51	27.13
207	-0.51	-1.46	7.65	0.54	2.49	-2.70	-0.06	-1.45	3.22	0.59	18.45	0.07	-0.49	0.58	0.71	27.62
520	6.74	7.33	10.67	1.65	-1.49	1.46	0.82	11.60	-3.52	0.59	-8.35	0.07	-1.12	0.42	0.78	27.65
214	4.26	3.56	11.74	1.70	-0.17	0.00	3.69	11.12	-2.65	3.48	-5.58	-1.22	-0.77	-1.32	-0.06	27.80
308	4.89	-0.21	12.14	3.41	-2.82	-0.62	10.74	9.01	-4.95	3.48	-3.73	-1.22	-0.37	-2.19	0.23	27.80
331	4.10	1.05	6.69	2.35	-0.17	0.42	5.01	13.54	-2.72	3.48	-1.88	-1.22	-0.91	-1.07	-0.83	27.83
155	3.83	3.56	6.60	3.41	-2.82	0.21	8.75	7.48	-2.85	3.48	-0.03	-1.22	-0.03	-1.36	-1.17	27.85
711	8.86	7.33	12.00	3.41	-1.49	-0.62	5.45	10.53	-4.50	0.59	-12.98	0.07	-0.65	-1.45	1.29	27.85
146	1.64	-3.98	4.29	2.81	-0.17	0.83	4.79	-1.65	4.05	0.59	11.98	1.37	-0.13	2.63	-0.97	28.10
461	5.12	4.82	4.78	4.62	-1.49	0.42	5.89	10.66	-4.79	0.59	-1.88	1.37	-0.49	-1.09	-0.33	28.19
533	2.02	1.05	6.85	0.54	3.81	-2.28	-2.81	0.38	2.50	-2.30	15.68	1.37	-0.82	1.27	1.33	28.58
292	2.14	-0.21	10.16	2.35	-0.17	-1.87	6.66	12.21	-5.37	3.48	3.66	-1.22	-0.91	-2.79	0.45	28.59
695	6.11	7.33	10.03	2.35	1.16	-1.87	1.38	13.74	-4.93	0.59	-5.58	0.07	-1.19	-2.05	1.51	28.64
137	4.86	3.56	7.16	1.65	-2.82	3.54	4.57	11.42	-1.18	3.48	-5.58	-1.22	-0.84	1.63	-1.51	28.71
12	12.54	-1.46	4.39	2.81	-1.49	1.46	-2.48	12.28	-0.55	-2.30	2.74	1.37	-2.30	-0.48	2.20	28.73
231	4.29	-2.72	6.81	4.62	-2.82	1.67	11.62	12.00	-4.54	3.48	-2.81	0.07	-0.55	-0.73	-1.23	29.17
3	15.76	6.07	7.27	1.65	-4.14	4.16	-2.70	25.35	-5.78	0.59	-14.83	-1.22	-3.01	-1.48	1.65	29.34
150	0.13	-2.72	3.34	0.54	2.49	-0.21	0.93	0.21	4.84	0.59	18.45	0.07	-0.54	2.48	-0.97	29.64
465	3.61	6.07	3.84	2.35	1.16	-0.62	2.04	12.51	-4.00	0.59	4.59	0.07	-0.90	-1.26	-0.34	29.71
204	2.92	-0.21	9.79	1.60	-0.17	-1.45	4.35	-4.47	3.74	0.59	11.06	0.07	0.02	1.17	0.71	29.72
510	4.20	1.05	7.97	2.81	1.16	-1.24	1.38	-1.30	1.81	-2.30	9.21	2.66	-0.44	1.42	1.54	29.93
328	7.52	2.30	8.84	3.41	-2.82	1.67	9.41	10.52	-2.20	3.48	-9.28	-1.22	-0.40	-0.46	-0.83	29.95
16	11.03	-0.21	3.45	0.54	1.16	0.42	-6.33	14.14	0.23	-2.30	9.21	0.07	-2.71	-0.63	2.20	30.27
501	7.41	8.58	10.85	1.65	-1.49	1.46	1.15	11.79	-3.43	0.59	-8.35	0.07	-1.15	0.42	1.00	30.55
614	6.18	3.56	10.32	4.62	-1.49	-0.41	7.87	12.18	-6.87	0.59	-5.58	1.37	-0.83	-1.94	1.07	30.63
530	5.44	2.30	9.00	1.60	1.16	-1.04	1.60	-2.65	3.02	-2.30	8.29	1.37	-0.31	1.86	1.33	30.67
195	4.93	4.82	11.92	1.70	-0.17	0.00	4.02	11.31	-2.56	3.48	-5.58	-1.22	-0.80	-1.32	0.16	30.69
289	5.57	1.05	12.31	3.41	-2.82	-0.62	11.07	9.19	-4.86	3.48	-3.73	-1.22	-0.40	-2.19	0.45	30.69
235	2.78	-1.46	5.87	2.35	-0.17	0.63	7.76	13.86	-3.76	3.48	3.66	-1.22	-0.96	-0.88	-1.23	30.72
692	9.53	8.58	12.18	3.41	-1.49	-0.62	5.78	10.72	-4.41	0.59	-12.98	0.07	-0.68	-1.45	1.51	30.75
514	2.69	2.30	7.02	0.54	3.81	-2.28	-2.48	0.56	2.59	-2.30	15.68	1.37	-0.85	1.27	1.54	31.47
147	3.56	-1.46	5.49	1.60	-0.17	1.04	5.34	-2.81	5.35	0.59	11.06	0.07	-0.03	3.07	-0.97	31.75
521	7.46	7.33	11.12	1.70	1.16	0.42	1.38	13.14	-3.27	0.59	-8.35	0.07	-1.13	-0.63	0.78	31.76
462	7.03	7.33	5.99	3.41	-1.49	0.63	6.44	9.49	-3.48	0.59	-2.81	0.07	-0.39	-0.65	-0.33	31.82
453	4.84	-0.21	3.67	2.81	1.16	1.25	2.48	0.36	3.42	-2.30	9.21	2.66	-0.49	3.33	-0.13	32.06
618	4.67	4.82	9.37	2.35	1.16	-1.45	4.02	14.04	-6.09	0.59	0.89	0.07	-1.24	-2.09	1.07	32.17

Appendix B - Sorted, Weighted Route Scores for All Evaluated Routes
Wolf Creek - Blackberry

Weights	6	4	8	4	2	3	5	9	3	2	10	1	1	3	1	
Route	Total Length	Angles Over 30 Degrees (count)	Length Not Along Existing Transmission Line	Length Through Previously Mined Area	Transmission Line Crossings	Stream Crossings	Wetlands in ROW	Sensitive Species Score	Cropland in ROW	Archaeological Sites within ROW	Residential Proximity Score	Public Facilities within 500 feet	Length Not Along Parcel Boundary	Floodplain in ROW	Total Length Karst	Total
13	14.46	1.05	5.60	1.60	-1.49	1.67	-1.93	11.11	0.75	-2.30	1.81	0.07	-2.20	-0.04	2.20	32.37
444	8.05	7.33	6.55	1.65	-1.49	3.95	2.15	13.43	-1.81	0.59	-8.35	0.07	-1.20	2.32	-0.67	32.57
634	8.81	6.07	7.02	4.62	-1.49	1.87	6.55	13.69	-4.14	0.59	-11.13	1.37	-0.86	-0.21	0.01	32.78
232	6.21	-0.21	8.01	3.41	-2.82	1.87	12.17	10.84	-3.24	3.48	-3.73	-1.22	-0.45	-0.29	-1.23	32.81
138	5.57	3.56	7.62	1.70	-0.17	2.50	5.12	12.96	-0.94	3.48	-5.58	-1.22	-0.85	0.58	-1.51	32.82
121	9.69	-5.23	-9.54	2.81	-4.14	8.73	5.45	8.91	-0.61	0.59	16.61	0.07	-2.19	1.42	0.66	33.24
4	16.48	6.07	7.72	1.70	-1.49	3.12	-2.15	26.89	-5.54	0.59	-14.83	-1.22	-3.02	-2.53	1.65	33.45
129	12.41	-0.21	3.36	-0.15	-1.49	4.16	-2.04	10.26	2.65	0.59	1.81	0.07	-2.42	3.04	1.43	33.48
595	6.85	4.82	10.49	4.62	-1.49	-0.41	8.20	12.36	-6.78	0.59	-5.58	1.37	-0.86	-1.94	1.29	33.52
511	6.11	3.56	9.17	1.60	1.16	-1.04	1.93	-2.47	3.11	-2.30	8.29	1.37	-0.34	1.86	1.54	33.56
457	3.33	1.05	2.72	0.54	3.81	0.21	-1.38	2.22	4.21	-2.30	15.68	1.37	-0.90	3.17	-0.13	33.60
615	8.09	6.07	11.52	3.41	-1.49	-0.21	8.42	11.01	-5.57	0.59	-6.51	0.07	-0.73	-1.50	1.07	34.26
638	7.30	7.33	6.07	2.35	1.16	0.83	2.70	15.55	-3.35	0.59	-4.66	0.07	-1.27	-0.37	0.01	34.32
502	8.13	8.58	11.30	1.70	1.16	0.42	1.71	13.32	-3.18	0.59	-8.35	0.07	-1.16	-0.63	1.00	34.65
125	8.18	-3.98	-10.49	0.54	-1.49	7.69	1.60	10.77	0.18	0.59	23.08	-1.22	-2.60	1.27	0.66	34.78
599	5.34	6.07	9.55	2.35	1.16	-1.45	4.35	14.22	-6.00	0.59	0.89	0.07	-1.27	-2.09	1.29	35.06
538	7.49	3.56	6.19	4.62	-1.49	2.08	9.19	14.01	-5.17	0.59	-5.58	1.37	-0.91	-0.02	-0.39	35.55
454	6.75	2.30	4.87	1.60	1.16	1.46	3.03	-0.81	4.73	-2.30	8.29	1.37	-0.39	3.77	-0.13	35.69
132	10.02	-1.46	-0.39	-0.09	1.16	2.91	-6.44	15.59	3.66	0.59	6.44	0.07	-2.11	6.04	0.42	36.41
635	10.72	8.58	8.22	3.41	-1.49	2.08	7.10	12.52	-2.83	0.59	-12.05	0.07	-0.76	0.23	0.01	36.41
445	8.77	7.33	7.00	1.70	1.16	2.91	2.81	14.96	-1.57	0.59	-8.35	0.07	-1.21	1.27	-0.67	36.77
122	11.61	-2.72	-8.34	1.60	-4.14	8.94	6.00	7.75	0.69	0.59	15.68	-1.22	-2.09	1.86	0.66	36.88
428	12.89	-1.46	-10.16	2.81	-2.82	9.15	3.03	10.92	-1.24	-2.30	13.83	1.37	-2.54	2.12	1.50	37.09
596	8.76	7.33	11.69	3.41	-1.49	-0.21	8.75	11.20	-5.48	0.59	-6.51	0.07	-0.76	-1.50	1.29	37.16
542	5.98	4.82	5.25	2.35	1.16	1.04	5.45	15.87	-4.39	0.59	0.89	0.07	-1.32	-0.19	-0.39	37.19
436	15.61	3.56	2.74	-0.15	-0.17	4.58	-4.35	12.27	2.03	-2.30	-0.96	1.37	-2.78	3.73	2.26	37.44
130	13.13	-0.21	3.81	-0.10	1.16	3.12	-1.49	11.79	2.90	0.59	1.81	0.07	-2.42	1.99	1.43	37.58
432	11.38	-0.21	-11.11	0.54	-0.17	8.11	-0.72	12.78	-0.45	-2.30	20.30	0.07	-2.96	1.96	1.50	38.74
539	9.40	6.07	7.39	3.41	-1.49	2.29	9.85	12.84	-3.87	0.59	-6.51	0.07	-0.81	0.40	-0.39	39.28
211	4.73	-0.21	12.04	4.62	-2.82	0.63	8.31	11.72	-4.16	3.48	2.74	0.07	-0.79	-0.76	-0.06	39.56
439	13.22	2.30	-1.01	-0.09	2.49	3.33	-8.87	17.59	3.04	-2.30	3.66	1.37	-2.47	6.75	1.25	40.27
429	14.80	1.05	-8.96	1.60	-2.82	9.36	3.69	9.75	0.07	-2.30	12.91	0.07	-2.45	2.56	1.50	40.83
215	3.22	1.05	11.09	2.35	-0.17	-0.41	4.57	13.58	-3.37	3.48	9.21	-1.22	-1.20	-0.93	-0.06	41.19
437	16.33	3.56	3.19	-0.10	2.49	3.54	-3.80	13.80	2.27	-2.30	-0.96	1.37	-2.78	2.68	2.26	41.54
192	5.40	1.05	12.21	4.62	-2.82	0.63	8.75	11.90	-4.07	3.48	2.74	0.07	-0.82	-0.76	0.16	42.56
212	6.64	2.30	13.24	3.41	-2.82	0.83	8.97	10.56	-2.85	3.48	1.81	-1.22	-0.69	-0.32	-0.06	43.30
518	7.93	3.56	11.42	4.62	-1.49	1.04	6.00	13.73	-4.78	0.59	-0.03	1.37	-1.15	-0.07	0.78	43.51
196	3.90	2.30	11.26	2.35	-0.17	-0.41	4.90	13.76	-3.28	3.48	9.21	-1.22	-1.23	-0.93	0.16	44.08
135	6.05	-0.21	7.91	4.62	-2.82	3.12	9.74	13.55	-2.45	3.48	2.74	0.07	-0.87	1.14	-1.51	44.57
522	6.42	4.82	10.47	2.35	1.16	0.00	2.15	15.59	-4.00	0.59	6.44	0.07	-1.56	-0.22	0.78	45.05
1	16.95	2.30	8.01	4.62	-4.14	3.74	2.48	27.48	-7.05	0.59	-6.51	0.07	-3.04	-1.97	1.65	45.20
139	4.53	1.05	6.96	2.35	-0.17	2.08	5.89	15.41	-1.66	3.48	9.21	-1.22	-1.28	0.99	-1.51	46.11
193	7.32	3.56	13.41	3.41	-2.82	0.83	9.30	10.74	-2.76	3.48	1.81	-1.22	-0.72	-0.32	0.16	46.20
499	8.60	4.82	11.59	4.62	-1.49	1.04	6.33	13.91	-4.69	0.59	-0.03	1.37	-1.18	-0.07	1.00	46.41

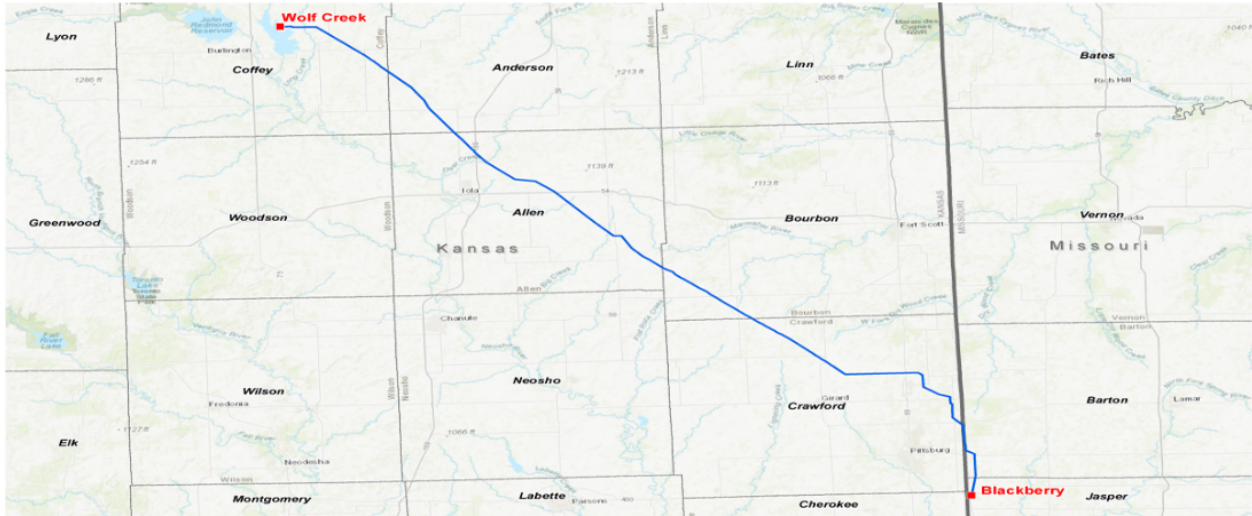
Appendix B - Sorted, Weighted Route Scores for All Evaluated Routes
Wolf Creek - Blackberry

Weights	6	4	8	4	2	3	5	9	3	2	10	1	1	3	1	
Route	Total Length	Angles Over 30 Degrees (count)	Length Not Along Existing Transmission Line	Length Through Previously Mined Area	Transmission Line Crossings	Stream Crossings	Wetlands in ROW	Sensitive Species Score	Cropland in ROW	Archaeological Sites within ROW	Residential Proximity Score	Public Facilities within 500 feet	Length Not Along Parcel Boundary	Floodplain in ROW	Total Length Karst	Total
5	15.44	3.56	7.07	2.35	-1.49	2.71	-1.27	29.34	-6.26	0.59	-0.03	-1.22	-3.45	-2.13	1.65	46.85
519	9.84	6.07	12.62	3.41	-1.49	1.25	6.55	12.56	-3.48	0.59	-0.96	0.07	-1.05	0.37	0.78	47.15
503	7.09	6.07	10.65	2.35	1.16	0.00	2.48	15.77	-3.91	0.59	6.44	0.07	-1.59	-0.22	1.00	47.95
136	7.96	2.30	9.11	3.41	-2.82	3.33	10.40	12.39	-1.15	3.48	1.81	-1.22	-0.77	1.58	-1.51	48.32
442	9.24	3.56	7.29	4.62	-1.49	3.54	7.43	15.56	-3.08	0.59	-0.03	1.37	-1.23	1.83	-0.67	48.53
2	18.86	4.82	9.21	3.41	-4.14	3.95	3.14	26.32	-5.75	0.59	-7.43	-1.22	-2.94	-1.53	1.65	48.95
127	13.60	-3.98	4.11	2.81	-1.49	3.74	3.14	12.38	1.39	0.59	10.13	1.37	-2.44	2.56	1.43	49.34
118	16.81	3.56	6.98	1.65	-4.14	6.45	2.92	25.46	-3.85	3.48	-7.43	-1.22	-3.15	1.55	0.88	49.95
500	10.51	7.33	12.79	3.41	-1.49	1.25	6.88	12.75	-3.39	0.59	-0.96	0.07	-1.08	0.37	1.00	50.04
446	7.73	4.82	6.34	2.35	1.16	2.50	3.58	17.42	-2.29	0.59	6.44	0.07	-1.64	1.68	-0.68	50.07
131	12.09	-2.72	3.16	0.54	1.16	2.71	-0.61	14.24	2.17	0.59	16.61	0.07	-2.85	2.40	1.43	50.99
443	11.16	6.07	8.49	3.41	-1.49	3.74	7.98	14.39	-1.77	0.59	-0.96	0.07	-1.13	2.27	-0.67	52.17
128	15.52	-1.46	5.31	1.60	-1.49	3.95	3.80	11.22	2.69	0.59	9.21	0.07	-2.34	3.00	1.43	53.09
434	16.80	-0.21	3.49	2.81	-0.17	4.16	0.82	14.39	0.76	-2.30	7.36	2.66	-2.80	3.25	2.26	53.30
425	20.01	7.33	6.36	1.65	-2.82	6.86	0.60	27.47	-4.47	0.59	-10.20	0.07	-3.51	2.24	1.72	53.91
119	17.53	3.56	7.43	1.70	-1.49	5.41	3.47	27.00	-3.60	3.48	-7.43	-1.22	-3.16	0.50	0.88	54.05
438	15.29	1.05	2.54	0.54	2.49	3.12	-3.03	16.26	1.54	-2.30	13.83	1.37	-3.21	3.09	2.26	54.84
435	18.71	2.30	4.69	1.60	-0.17	4.37	1.38	13.23	2.06	-2.30	6.44	1.37	-2.70	3.69	2.26	56.93
426	20.73	7.33	6.81	1.70	-0.17	5.82	1.15	29.01	-4.23	0.59	-10.20	0.07	-3.52	1.19	1.72	58.01
116	18.00	-0.21	7.73	4.62	-4.14	6.03	8.20	27.59	-5.11	3.48	0.89	0.07	-3.18	1.06	0.88	65.93
120	16.49	1.05	6.78	2.35	-1.49	4.99	4.35	29.46	-4.33	3.48	7.36	-1.22	-3.59	0.89	0.88	67.45
117	19.92	2.30	8.93	3.41	-4.14	6.24	8.75	26.43	-3.81	3.48	-0.03	-1.22	-3.08	1.50	0.88	69.56
423	21.20	3.56	7.11	4.62	-2.82	6.45	5.78	29.60	-5.74	0.59	-1.88	1.37	-3.54	1.75	1.72	69.77
427	19.69	4.82	6.16	2.35	-0.17	5.41	1.93	31.46	-4.95	0.59	4.59	0.07	-3.95	1.60	1.72	71.31
424	23.11	6.07	8.31	3.41	-2.82	6.66	6.44	28.44	-4.44	0.59	-2.81	0.07	-3.44	2.19	1.72	73.52

APPENDIX C – PROJECT WEBSITE SCREENSHOTS; WEBSITE MATERIALS

Wolf Creek-Blackberry

A 345 kV Transmission Line Project



Project Overview

In October 2021, NEET Southwest was awarded to construct a new approximately 94 circuit miles of 345 kV transmission facilities from the Wolf Creek substation in Coffey County, Kansas to the Blackberry substation in Jasper County, Missouri. NEET Southwest finances, develops, constructs, owns, operates and maintains the Wolf Creek-Blackberry 345-kilovolt (kV) transmission project. The project requires regulatory approval in both Kansas and Missouri. Assuming timely regulatory approvals, the project is expected to be in-service in January 2025, and NEET Southwest will become a transmission-owning member in SPP.

The project is part of the 2019 Integrated Transmission Plan approved by SPP in October 2019 to address the needs for a more reliable and cost-effective grid. This project will reduce congestion and provide market efficiencies and benefits to ratepayers.

[DOWNLOAD MAP](#)

Virtual Open House

NEET Southwest hosted a virtual public meeting for the project on March 22nd, 2022.

[VIRTUAL OPEN HOUSE PRESENTATION >](#)

Project Benefits

Economic Development And Investment

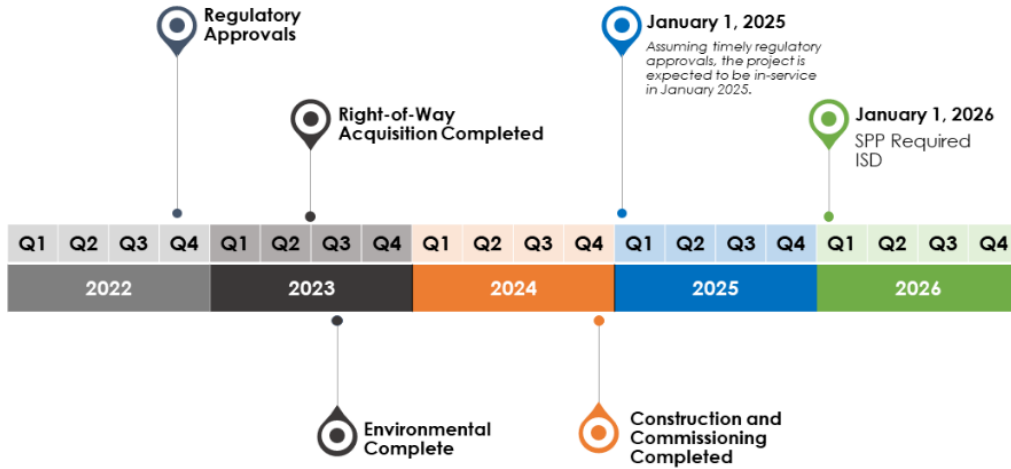
- Greater access to more affordable power in the region
- Expected to provide approximately \$23.7 million in congestion savings in its first year and additional \$377 million over the next 40 years
- Additional investment in the local economy during construction and the life of the project
- Ongoing collaboration and support of local businesses, contractors and community members

Minimal Environmental And Visual Impact

- Project is designed to provide most value to customers with safe, reliable and cost-effective components and materials
- Project will utilize monopole structures to minimize tree clearing and agricultural impacts

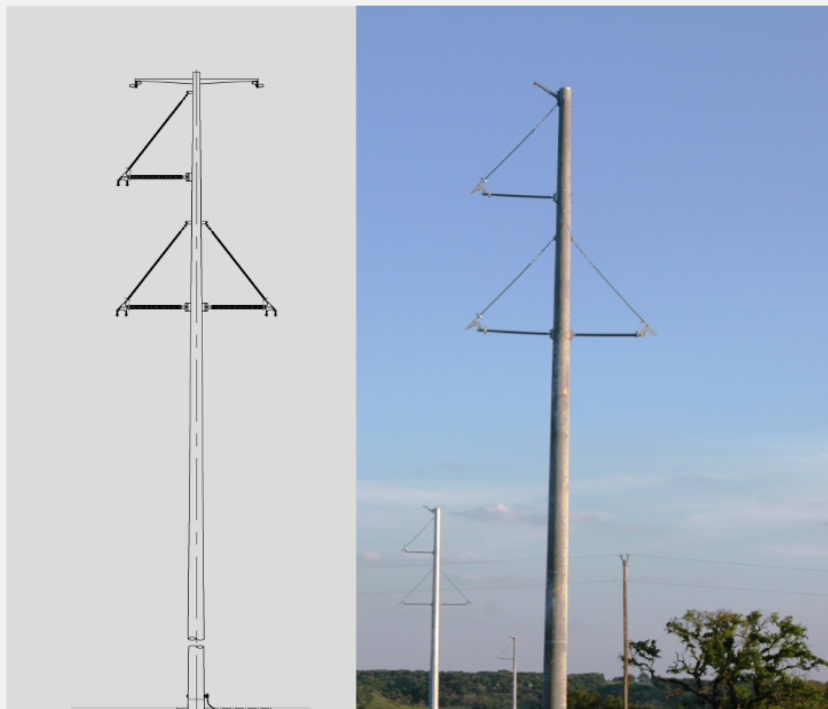
[DOWNLOAD FACT SHEET](#)

Project Timeline



Project Design

NEET Southwest’s design provides most value to customers with safe, reliable, and cost-effective components and materials.



Frequently Asked Questions

Learn more about the Wolf Creek-Blackberry 345 kV Transmission Project.

Who is NextEra Energy Transmission Southwest?

NextEra Energy Transmission Southwest, LLC (NEET Southwest), is a direct subsidiary of NextEra Energy Transmission, LLC (NEET), both members of the NextEra Energy, Inc. (NextEra Energy) family. NextEra Energy is a leading clean-energy company and one of America's largest infrastructure capital investors in any industry.

NEET Southwest is pursuing opportunities to finance, develop, build, own, operate and maintain new transmission facilities to address economic needs in the SPP region. NEET Southwest is committed to creating long-term relationships in the communities in which it works and believes that early engagement with project stakeholders is integral to a successful project. There will be several opportunities throughout the project for stakeholders to ask questions and provide comments to the project team.

What is the Wolf Creek-Blackberry project?

Wolf Creek-Blackberry is an approximately 94 miles of 345 kV transmission line from the Wolf Creek substation in Coffey County in Kansas to the Blackberry substation in Jasper County, Missouri. Subject to receiving regulatory approvals, the project will have a proposed 150 foot easement width with typical above-ground transmission line structures of 125 feet tall. Final design details are not yet available and will be determined based on the results of technical studies (e.g., geotechnical, environmental) as the project progresses.

What is the need for this project?

SPP plans all public utility transmission throughout the region. This project is part of the 2019 Integrated Transmission Plan that identified projects to address needs for a more reliable and cost-effective grid capable of enabling a rapidly changing generation mix and new technologies and was approved by the SPP in October 2019. The Wolf Creek-Blackberry Project is one of the projects proposed as part of this plan.

What are the benefits of this project?

The Wolf Creek-Blackberry Project will facilitate the reliable delivery of lower-cost electricity generation. The Project will also create local employment opportunities during construction and operation of the line.

What governmental approvals will be required before you build?

Federal, state and county-level permits and approvals will be required to support construction and operation of the line, including environmental and county permits. NEET Southwest also plans to seek a Certificate of Convenience and Necessity and line siting approval from the Kansas Corporation Commission and a Certificate of Public Convenience and Necessity from Missouri Public Service Commission.

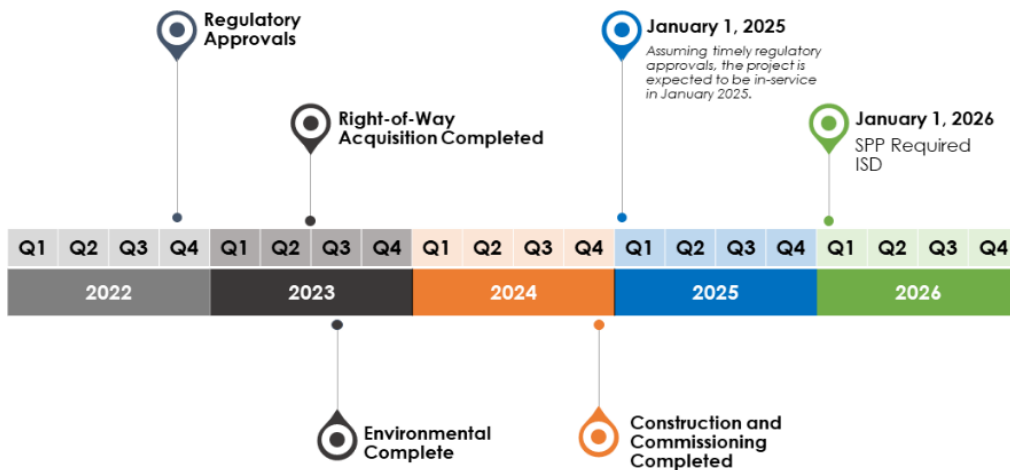
How do I get more information about these state approval processes?

NEET Southwest will be hosting virtual public meetings for the project in March 2022. Register online and learn more about the project and the state approval process.

[Virtual Open House Registration](#)

What is the proposed timing for this project?

NEET Southwest is targeting all regulatory approvals by end of 2022 and plans to start construction in 2023 in order to have the Wolf Creek to Blackberry transmission line in-service by 2025.



Have a question for our project team?

Call (620)205-2051 or [submit your question](#).



Contact Us


NEET Southwest Transmission Project

Let's Connect

Contact us at (620)205-2051 between business hours from 9am-5pm EST, email us at neetsw@nexteraenergy.com or fill out the form below.

*All fields required.

<input type="text" value="*Full Name"/>	<input type="text" value="*Project Name"/>
<input type="text" value="*Email"/>	<input type="text" value="*Comment"/>
<input type="text" value="*Phone Number"/>	

I'm not a robot  reCAPTCHA
[Privacy](#) - [Terms](#)

SUBMIT

By clicking submit, you agree to be contacted by NextEra Energy Transmission Southwest at the email and/or phone number provided in an effort to respond to your inquiry.

[TERMS & CONDITIONS](#) | [PRIVACY POLICY](#) | [SAFETY POLICY](#) | [CAREERS](#) | [INVESTORS](#) | [NEWS](#)

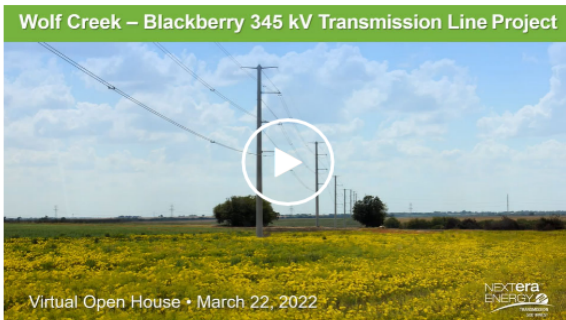
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Virtual Open House Materials March 22, 2022

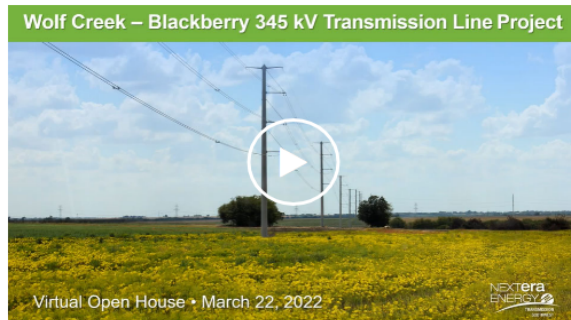
Wolf Creek-Blackberry Transmission Line Project

Virtual Open House Recordings

Meeting Recording 10am-11am CT



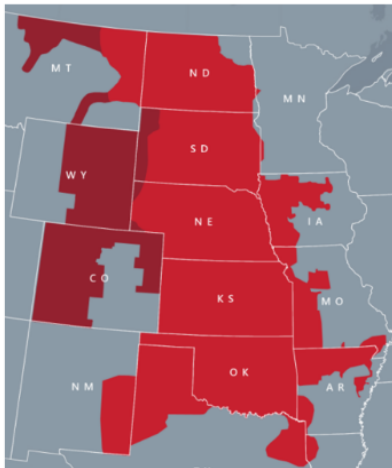
Meeting Recording 6pm-7pm CT



Virtual Open House Presentation

Background - Project Need

Background – Project Need



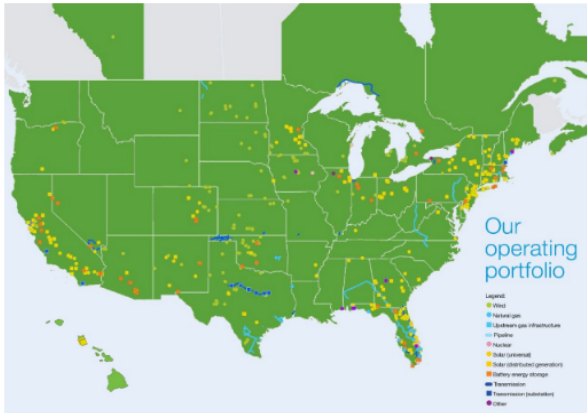
Southwest Power Pool (SPP)

- A non-for-profit, regional transmission organization (RTO) mandated by the Federal Energy Regulatory Commission (FERC) to ensure safe, reliable and cost-effective transmission infrastructure in the central region of the country
- In 2019, SPP identified the need for this project in its annual Integrated Transmission Plan (ITP)
- In 2021, through a competitive solicitation process which included 7 qualified bids, SPP selected NextEra Energy Transmission Southwest (NEET Southwest) to design, finance, build, operate and maintain this project

For more information please visit: <https://www.spp.org/>

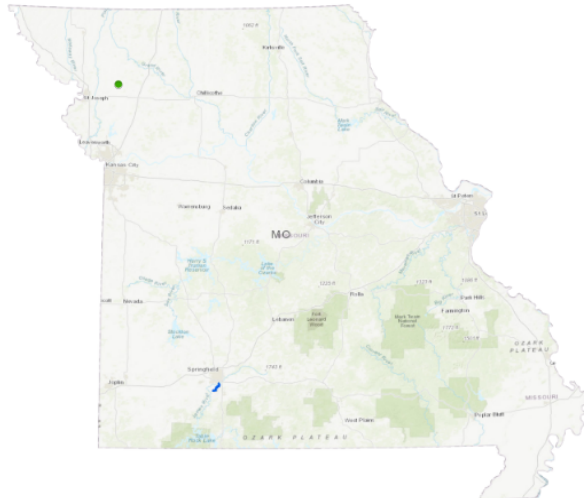
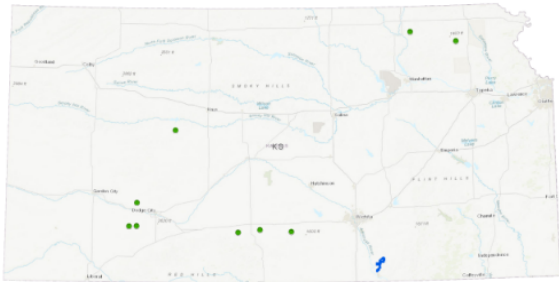
Investing in America's Energy Infrastructure

NextEra Energy Inc. (NextEra) is a leading clean energy utility infrastructure company active across North America.



- ~55,300 MW generating capacity as of year-end 2021
- ~\$119 billion in infrastructure capital deployed since 2011
- ~81,500 miles of transmission and distribution lines
- ~15,000 employees as of year-end 2021
- 49 states with operations and development projects
- 4 provinces in Canada with operations and development projects

Our Affiliates' Existing Assets in Kansas and Missouri



Map Key:

Green circle - NEER Wind

Blue line - NEET Transmission

Existing Assets:

- Approximately \$2.2 billion total capital investment
- Approximately \$10.8 million annual payroll
- \$7.9 million annual land payments
- \$5.9 million in property taxes, 2020*
- Approximately 260 miles of transmission lines operating in Kansas and Missouri

*Annual Property Taxes: Includes property tax and other indirect taxes. Internal data based on 2020 full year.

Wolf Creek - Blackberry Project

What Is The Project?

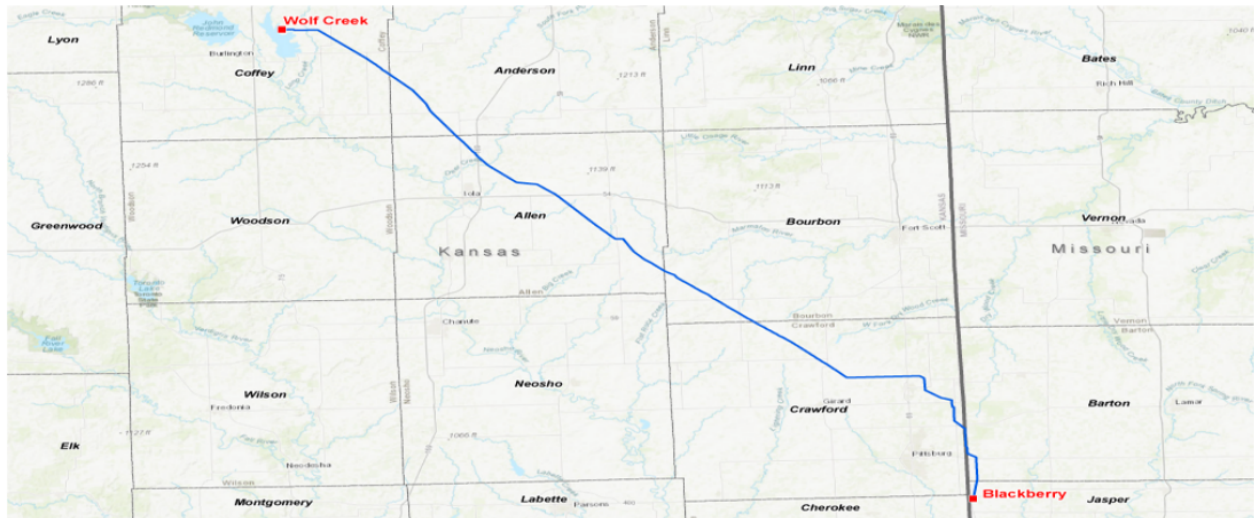
This project is a new 94-mile, 345 kilovolt (kV) regulated transmission line that runs from the Wolf Creek substation (Everg) in Kansas to the Blackberry substation (AECI) in Missouri.

Why Is It Needed?

The Wolf Creek-Blackberry Project is part of SPP's 2019 Integrated Transmission Plan to address the needs for a more reliable and cost-effective grid. This project will reduce congestion and provide market efficiencies and benefits to customers.

Where?

The project route traverses Coffey, Anderson, Allen, Bourbon and Crawford counties in Kansas, and Barton and Jasper counties in Missouri.



Project Benefits

Project Benefits

The Southwest Power Pool identified the Wolf Creek-Blackberry project as needed through its Integrated Transmission Planning Process in 2019 to provide more affordable power in the region.

- Expected to provide customers \$23.7 million in congestion savings in its first year and an additional \$377 million over the next 40 years
- Additional investment in the local economy during construction and the life of the project
- NEET Southwest is committed to using domestically-sourced materials, local vendors and workers as much as possible
- Estimated to provide over \$28 MM in tax revenue to Kansas and \$4 MM to Missouri over the next 40 years

Routing Considerations

Routing Considerations

Socioeconomic, Landowners Impacts

- Most direct route possible; lower cost for customers
- Reducing greenfield routing impacts for landowners by paralleling or co-locating with existing transmission lines, roads, and property lines
- Maximizing distances from residences and public facilities
- Minimizing impacts to public airports (FAA) and Military Training Zones

Environmental Impacts

- Minimizing impacts to forested wetland and known cultural and archeological resources
- Minimizing/avoiding protected or sensitive species and habitat impacts
- Minimizing impacts to federal, state-owned, and tribal lands

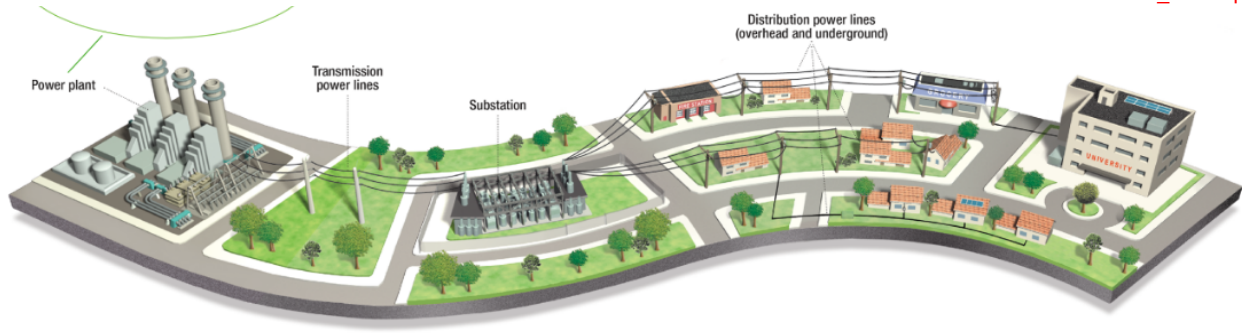
Infrastructure Impacts

- Optimize clearances to existing structures, including bridges, culverts, oil and gas wells, transmission lines, telecom towers, and wind turbines

The Electric System

Transmission is a critical component of the electric system.





Power is generated at the plant and this could be a nuclear power plant, solar site, or wind farm. It is transmitted via the transmission power lines to the substation, where high voltage power is stepped down to a lower voltage. This lower voltage power is then distributed over distribution power lines to neighborhoods, businesses, and residences and ultimately into your homes.

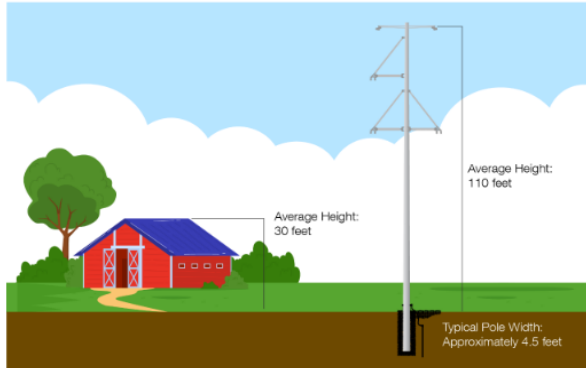
Engineering Design and Construction Activities



Engineering Design and Construction Activities

Engineering Design

The project was designed to use safe, reliable and cost-effective materials.



1 Conductor

Twin-Bundled 1590 kcmil “Falcon” ACSS/TW HS conductor will be installed, exceeding SPP minimum capacity requirements to reduce loss throughout the line and offer excellent structural reliability.

2 Structures

Steel and spun concrete monopole structures will be installed, allowing minimal visual impact on the environment given their slim profile while exceeding structural reliability and durability requirements. The average above ground pole height will be 110 feet, the average span length will be 900 feet, and the right-of-way width will be 150’, which is typical for 345-kV transmission lines.

3 Insulators

Braced post insulator assemblies will be installed in a delta configuration on the pole to support the conductor wires.

4 OPGW

Optical Ground Wire (OPGW) will provide the best possible protection for optical fibers, reliable lightning shielding, excellent corrosion performance, and will exceed the required fault current carrying capacity.

5 Foundation

Typical foundations installed will include direct embedded poles with crushed rock or unreinforced concrete backfill with an average pole diameter of 4.5 feet at the groundline. Angle structures will also be direct embedded poles supported by guy wires. Self-supporting structures placed on drilled shaft foundations will be installed at select locations to support line crossings and other constraints.

Construction Activities

With Safety at the Forefront of Everything We Do, NEET Southwest Will:

- Construct the line with qualified, insured, experienced contractors with proven safety records and that use protocols to help prevent the spread of COVID-19
- Require its contractors to minimize disturbances, protect landowners and their property

Activities That Will Happen Along the Project's Right-of-Way (ROW):

- Meet with landowners to address issues and questions
- Clear ROW for construction access
- Install new foundations, poles and wires
- Clean up and restore the ROW as close to original condition as possible

Right-Of-Way Easements





Right-Of-Way Easements

Right-of-Way Easements

Working with Landowners

NEET Southwest is securing options for easements from landowners whose land will be crossed by the transmission line. Following regulatory approvals of the project, NEET Southwest will finalize the purchase of the easements.

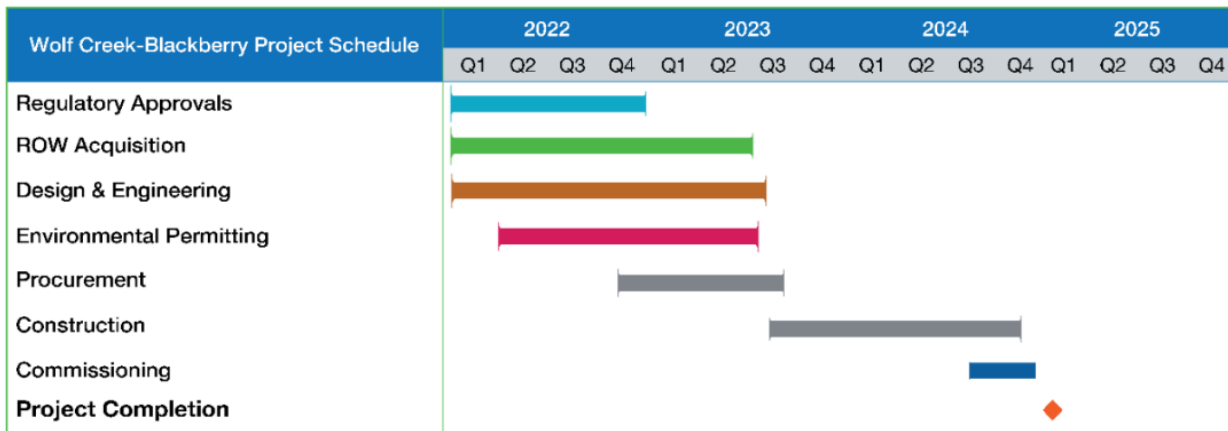
Crews and contractors may access the rights of way to conduct the following activities while the project approval process is underway:

- Surveying
- Cultural and natural resources assessments
- Wetlands delineations
- Soils testing

NEET Southwest will work with landowners on an ongoing basis throughout the construction, clean up phase of the project, and beyond.

Project Timeline

Project Timeline



- Regulatory Approvals:** 2022 Q1-Q4
- ROW Acquisition:** 2022 Q1-2023 Q2
- Design and Engineering:** 2022 Q1-2023 Q3
- Environmental Permitting:** 2022 Q2-2023 Q2
- Procurement:** 2022 Q4-2023 Q3
- Construction:** 2023 Q3-2024 Q4
- Commissioning:** 2024 Q3-2024 Q4
- Project In-Service:** 2025 Q1

Note: Subject to Regulatory approvals.

Operations and Maintenance

Operations and Maintenance

NEET Southwest focuses on reliability and safety standards for operating transmission assets.

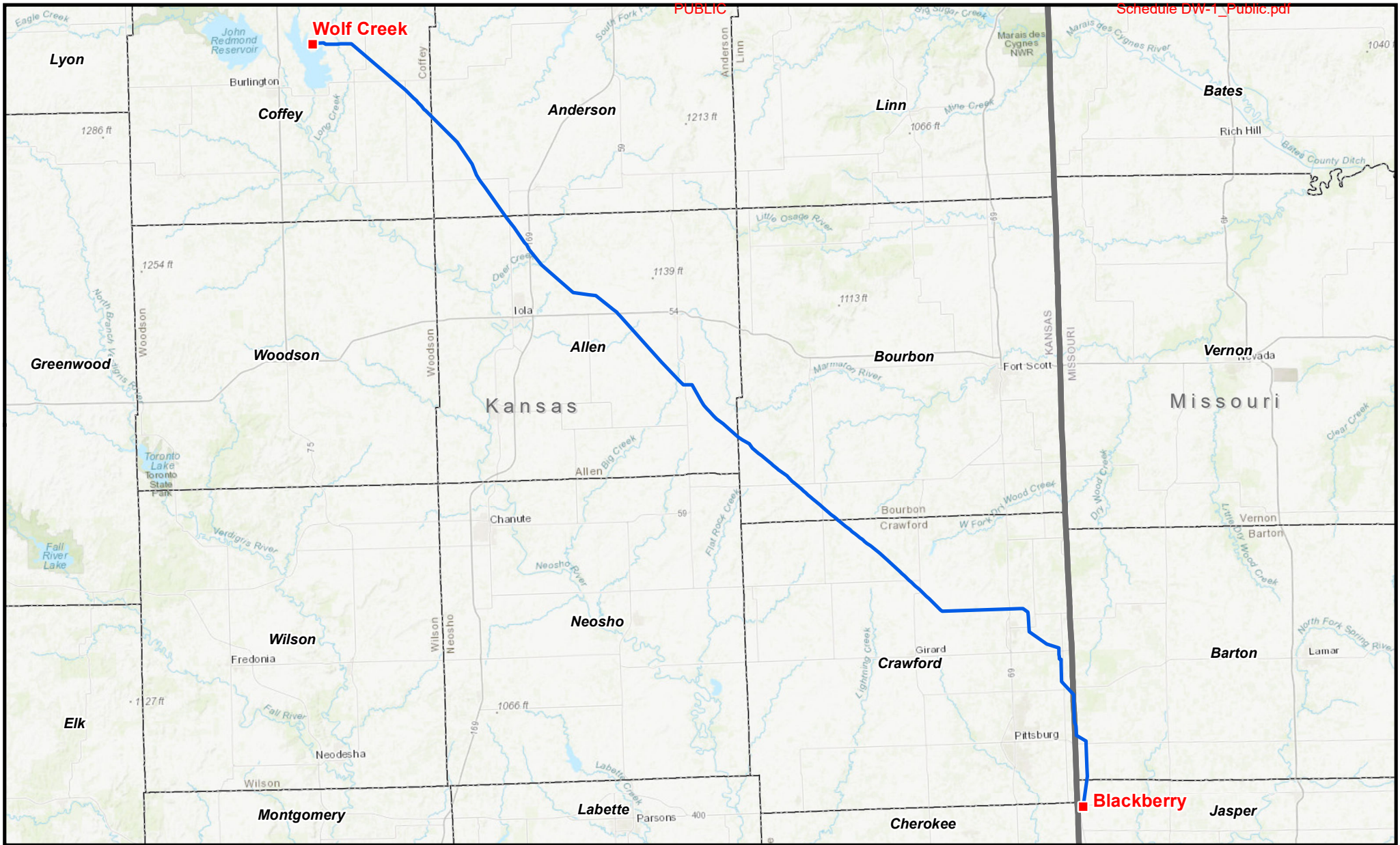
To do this, NEET Southwest:

- Monitors system on a 24-hour basis from its state-of-the-art operations control center
- Performs regular, preventative, time-based inspections
- Makes timely repairs when needed
- Monitors and removes vegetation in ROW to help ensure the safe and reliable operation of the transmission line
- Supports by 70 technical staff in locations near the Project and one location within 30-minute drive from the Project mid-point

NEET Southwest provides landowners notice before accessing the ROW to perform scheduled maintenance. In the unlikely event of an emergency, NEET Southwest will immediately deploy local crews to ensure safety and resolve any issues.

Have a question for our project team?

Call (620)205-2051 or [submit your question](#).



- Project Substation
- Wolf Creek to Blackberry Proposed Route
- County Boundary
- State Boundary

NEET Southwest Wolf Creek to Blackberry 345kV Transmission Line

0 5 10 PUBLIC 15 20 25 Miles

NEXTeraTM
ENERGY

TRANSMISSION
SOUTHWEST
Page 166 of 287



Meeting the Transmission Needs for the Region



An Experienced Partner

NextEra Energy Transmission, LLC (NEET) is a leading competitive transmission company in North America. The company and its parent, NextEra Energy, Inc. (NextEra Energy), have a successful track record of working with local communities and regulators to build and operate complex transmission projects across North America.

On October 27, 2021, NextEra Energy Transmission Southwest, LLC (NEET Southwest) a subsidiary of NEET, was awarded the Wolf Creek-Blackberry transmission project by Southwest Power Pool (SPP).

Project Overview

- » **Developer:** NEET Southwest to finance, develop, construct, own, operate and maintain the Wolf Creek-Blackberry 345-kilovolt (kV) transmission project.
- » **Project:** Construct approximately 94 miles of new 345 kV transmission line that will run from Wolf Creek substation in Coffey County, Kansas to the Blackberry substation in Jasper County, Missouri.
- » **Construction:** The project requires regulatory approval in both Kansas and Missouri. Assuming timely regulatory approvals, the project is expected to be in-service in January 2025.

About NextEra Energy Transmission

- » A leading competitive transmission company, which develops, finances, constructs and operates transmission assets across North America.
- » Affiliated with Florida Power & Light, America's largest electric utility, and NextEra Energy Resources, the world's largest generator of renewable energy from the wind and sun and a world leader in battery storage.
- » Current assets include: operating transmission facilities in California Indiana, Texas, New Hampshire, Nevada, Illinois, Kentucky, Missouri, Kansas and Oklahoma; a project under construction in Ontario, Canada and New York as well as numerous other projects in development throughout the United States.

Benefits of NextEra Energy's energy investments in Kansas and Missouri

Approximately
\$2.2 billion
total capital investment



Approximately
\$10.8 million
annual payroll



\$7.9 million
annual land payments

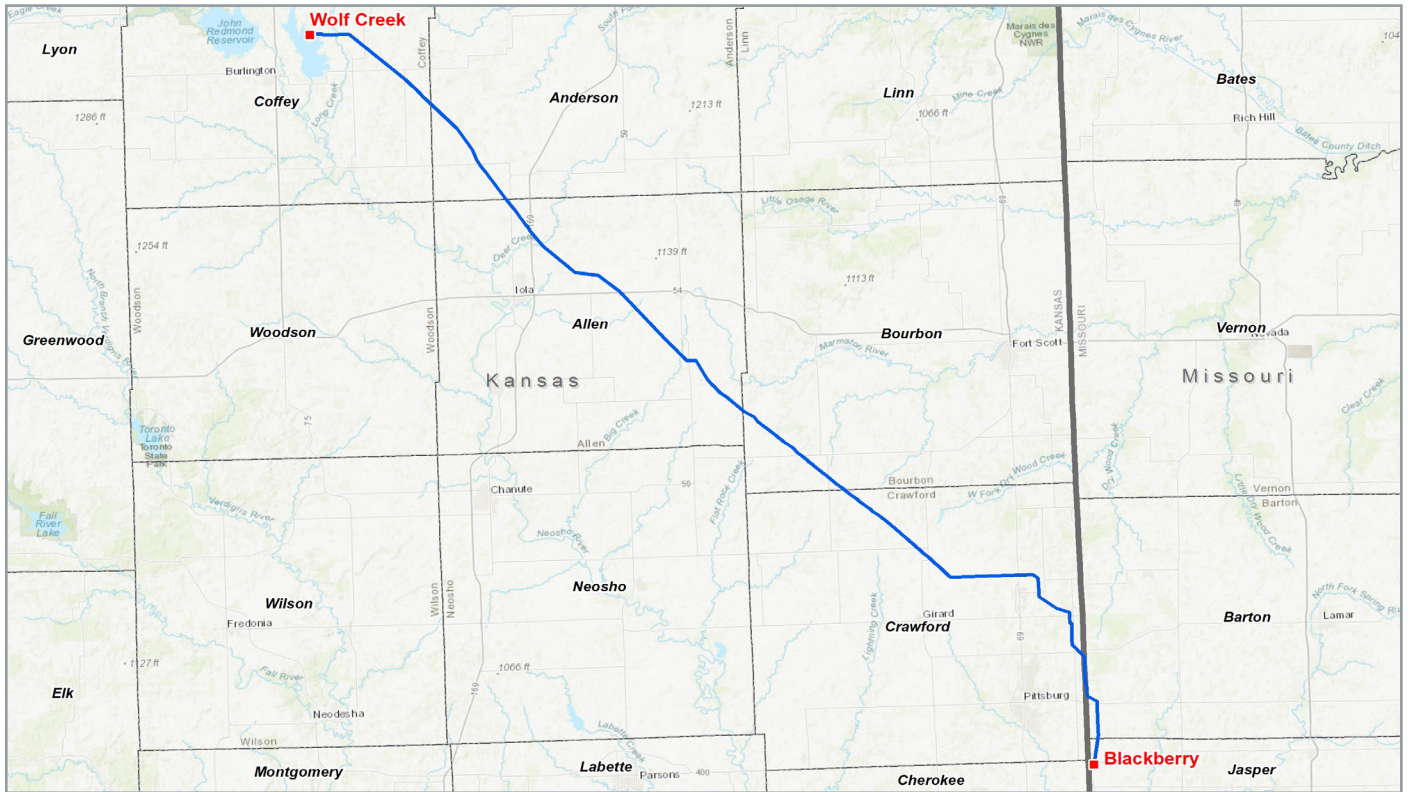


\$5.9 million
in property taxes, 2020*

* Annual Property Taxes: Includes property tax and other indirect taxes. Internal data based on 2020 full year.



Approximately
247 miles
of transmission lines operating
in Kansas and Missouri



Project Benefits

- » **Economic Development And Investment**
 - Greater access to more affordable power in the region
 - Expected to provide approximately \$23.7 million in congestion savings in its first year and additional \$377 million over the next 40 years
 - Additional investment in the local economy during construction and the life of the project
 - Ongoing collaboration and support of local businesses, contractors and community members
- » **Minimal Environmental And Visual Impact**
 - Project is designed to provide most value to customers with safe, reliable and cost-effective components and materials
 - Project will utilize monopole structures to minimize tree clearing and agricultural impacts

Regulatory Oversight and Permitting



- » NEET Southwest plans to file its application for a Certificate of Convenience and Necessity (CCN) Application with Kansas Corporation Commission (KCC) in February 2022 and the Missouri Public Service Commission (MPSC) in April 2022
- » NEET Southwest plans to file its Siting Application at the KCC in the second quarter of 2022, with statutory deadlines in Kansas running through approximately August 2022
- » It is NEET Southwest’s goal to diligently work with the KCC and MPSC during the CCN review and approval process
- » Assuming timely regulatory approvals, NEET Southwest’s planned early in-service date of January 1, 2025, which represents an estimated \$14.5 MM of additional Adjusted Production Cost (APC) savings to SPP customers

**APPENDIX D – VIRTUAL OPEN HOUSE POSTCARD INVITATIONS &
NEWSPAPER ADVERTISEMENTS**



NextEra Energy Transmission Southwest is hosting a virtual open house to discuss the **Wolf Creek to Blackberry 345kV Transmission Line Project**. PUBLIC Schedule DW-T_Public.pdf

Join us to learn more about our project and the state approval process.

Due to COVID-19 and associated social distancing measures, the presentation will be held as a virtual online event. **You must pre-register** to receive an access code to **“join” the virtual open house** at the designated time.

VIRTUAL OPEN HOUSE

Date: **Tuesday, March 22, 2022**

Morning Session: **10:00 – 11:00 a.m.**

OR

Evening Session: **6:00 – 7:00 p.m.**

JOIN MEETING BY PHONE



Morning Session

Dial in: 816-298-0271

Code: 853 4019#

Evening Session

Dial in: 816-298-0271

Code: 869 083 596#



REGISTER TO JOIN VIRTUAL MEETING



https://www.surveymonkey.com/r/WCBB_nw

PUBLIC If you have questions in advance of the meeting, please email them to: neetsw@nexteraenergy.com or contact us at 620-205-2051.

