

FIGURE 44: Alternative Corridors With Recommended Corridor

#### Part X: Recommended Corridor

After evaluating the alternative corridors, a recommended corridor was determined. The recommended corridor is an approximately 3-mile wide corridor that encompasses the alternative corridors that minimize adverse impact on people, places and cultural resources, protect water resources, plants and animals, maximize co-location of the new line and balance these considerations to reduce the overall impact of the line. The corridor begins at the Victoria Nuclear Site and makes a direct path in a northwestern direction to the Cholla Site. The corridor divides into two viable alternative corridors, one directly to Cholla, and a western route to Coleto Creek, then onto Cholla. From Victoria, the corridor heads east towards Blessing/Hillje, and divides into northern and southern corridors. The northern corridor follows an existing 138 kV transmission line, while the southern corridor follows a rail line and a 345 kV transmission line. The corridors merge back into one corridor where the 138 kV line and the 345 kV line intersect. The recommended corridor follows the 345 kV transmission line until reaching the 138 kV transmission line that leads to the Blessing Substation. At this point the corridor splits, one stays with the South Texas Project (STP) – Whitepoint 345 kV Transmission Line. The other co-locates with the 138 kV Transmission line to the Blessing Substation. This corridor provides ample opportunities to interconnect with the STP – Whitepoint 345 kV Transmission Line.

	Study		Recommended	
	Area		Corridor	
Land Cover Type	Acres	% Of Area	Acres	% Of Area
Open Water	19753	1.94%	3169	0.99%
Urban	50266	4.94%	15422	4.80%
Barren Land	2016	0.20%	535	0.17%
Deciduous Forest	61499	6.04%	23181	7.22%
Evergreen Forest	32309	3.17%	10594	3.30%
Mixed Forest	3269	0.32%	1170	0.36%
Shrub/Scrub	116538	11.45%	41520	12.93%
Herbaceous	19177	1.88%	6104	1.90%
Hay/Pasture	372108	36.55%	115973	36.11%
Cultivated Crops	271251	26.65%	82542	25.70%
Woody Wetlands	48999	4.81%	15596	4.86%
Emergent				
Herbaceous Wetlands	20797	2.04%	5374	1.67%
Total	1017981	100.00%	321180	100.00%

	TABLE 16: LULC COMPARISO	N WITH STUDY AREA A	AND RECOMMENDED CORRIDOR
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FIGURE 45: RECOMMENDED CORRIDOR



# Part XI: Representative Route

A representative route was delineated inside the recommended corridor in order analyze the potential impacts of the recommended corridor more thoroughly and realistically. A 200 foot right-of-way was assumed for all sections of the route in this analysis.

	Study Area		Representative		
Land Cover Type		0/ 0f A roo	A awas	Koule	
Land Cover Type	Acres	% OI Area	Acres	70 UI Area	
Open Water	19753	1.94%	13	0.46%	
Urban	50266	4.94%	70	2.49%	
Barren Land	2016	0.20%	1	0.04%	
Deciduous Forest	61499	6.04%	203	7.22%	
Evergreen Forest	32309	3.17%	127	4.53%	
Mixed Forest	3269	0.32%	11	0.38%	
Shrub/Scrub	116538	11.45%	361	12.85%	
Herbaceous	19177	1.88%	65	2.33%	
Hay/Pasture	372108	36.55%	1056	37.59%	
Cultivated Crops	271251	26.65%	747	26.59%	
Woody Wetlands	48999	4.81%	124	4.41%	
Emergent Herbaceous Wetlands	20797	2.04%	31	1.10%	
Total	1017981	100.00%	2809	100.00%	

TABLE 17: LULC COMPARISON WITH STUDY AREA AND REPRESENTATIVE ROUTE

- Total Length: 118 miles
- Length Co-locating with existing transmission lines: 72 miles (61%)
- Length Co-locating with existing 138 kV transmission lines: 36 miles
- Length Co-locating with existing 345 kV transmission lines: 36 miles
- 60 buildings within 300'
- 390 buildings within 1000'

- Adjacent to one landfill
- Two private airstrips within 2000'
- Closest school: 1300'
- Three churches within 1500'
- One eligible archeology site inside representative right-of-way
- Out of the 45 State Historical Landmarks in the study area, three are within 3000' of the representative right-of-way. All three are in the town of Blessing.
- USGS Blueline Streams crossed: 121
- Acres of NWI wetlands inside representative right-of-way: 122 AC
- Acres of 100 Yr FEMA Floodplain inside representative right-of-way: 448 AC
- Rail Crossings: 6
- U.S. Highway Crossings: 4
- State Highway Crossings: 4
- Farm to Market Road Crossings: 7
- Other Road Crossings: 50

### **Part XII: Conclusion**

This study is based on the EPRI-GTC siting methodology. The results of this study developed a reasonable corridor for locating a high voltage transmission line right-of-way from the Victoria Nuclear Site to four destination points: Cholla Substation, Coleto Creek Substation, Hillje Substation, and Blessing Substation, as well as providing opportunities to interconnect with the existing STP – Whitepoint 345 kV Transmission Line. The corridor utilizes existing electric transmission corridors while minimizing impact to both the natural and built environments. It is the conclusion of this report that the recommended corridor should be used as the basis for indentifying actual right-of-ways to each of these points from the proposed nuclear site.

# **Part XIII: References**

"EPRI-GTC Overhead Electric Transmission Line Siting Methodology," Electric Power Research Institute & Georgia Transmission Corp., February 2006

Keep Texas Moving - Texas Trans Corridor http://ttc.keeptexasmoving.com/projects/i69/deis.aspx

Bureau of Economic Geology, University of Texas at Austin http://www.beg.utexas.edu/UTopia/images/pagesizemaps/physiography.pdf

U.S. Census Bureau State and County Quick Facts http://quickfacts.census.gov/qfd/states/

Texas Historical Commission – Historic Sites Atlas http://atlas.thc.state.tx.us/shell-county.htm

# **Part XIV: Appendix**

Appendix A: Brockington Report

Appendix B: Alternative Corridors Maps