

Table 2-1. Comparison of The Preferred Route to the Two Proposed Alternatives

FEATURE	SUB-CATEGORIES	ATTRIBUTE	SANDHILLS ALTERNATIVE ROUTE	PREFERRED ROUTE	KEYSTONE MAINLINE ALTERNATIVE ROUTE
			254.8 Miles	275.2 Miles	280.5 Miles
<i>Environmental Features</i>					
<i>Federally Listed Species Range (Endangered)</i> ¹	American burying beetle	<i>CROSSING LENGTH (MILES)</i>	112.1	100.9	100.9
	Interior least tern		25.6	27.5	18.4
	Pallid sturgeon		0.0	0.0	3.2
	Topeka shiner		0.0	0.0	7.7
	Whooping crane		229.9	250.9	166.3
<i>Federally Listed Species Range (Threatened)</i> ¹	Northern long-eared bat		254.8	275.2	280.5
	Piping plover		25.6	27.5	18.4
	Western prairie fringed orchid		96.4	118.2	145.4
<i>State Listed Species Range (Endangered)</i> ¹	American burying beetle		112.1	100.9	100.9
	Interior least tern		25.6	27.5	18.4
	Pallid sturgeon		0.0	0.0	3.2
	Sturgeon chub		0.0	0.0	3.2
	Topeka shiner		0.0	0.0	7.7
	Whooping crane		229.9	250.9	166.3
<i>State Listed Species Range (Threatened)</i> ¹	Lake sturgeon		0.0	0.0	3.2
	Massasauga rattlesnake		14.4	14.4	13.4
	Northern long-eared bat		254.8	275.2	280.5
	Northern redbelly dace		23.8	16.8	16.8
	Piping plover		25.6	27.5	18.4
	River otter		33.0	26.2	26.1
	Small white lady's slipper		52.8	43.4	39.6
	Western prairie fringed orchid		96.4	118.2	145.4
<i>Highly Water Erodible Soils</i> ²			<i>CROSSING LENGTH (MILES)</i>	79.9	57.4
<i>Highly Wind Erodible Soils</i> ²		<i>CROSSING LENGTH (MILES)</i>	90.5	47.1	48.9

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<i>High Consequence Area (HCA)³ - Ecological Unusually Sensitive Areas</i>		<i>CROSSING LENGTH (MILES)</i>	3.8	2.2	4.4
<i>Sandhills Terrain Crossed</i>	Major Land Resource Area (MLRA) Sandhills ⁴	<i>CROSSING LENGTH (MILES)</i>	81.0	0.0	0.0
	Topographic Region Sandhills ⁵		68.8	3.9	3.9
	Eco-Region IV Sandhills ⁶		91.5	0.0	0.0
<i>Land Use Class⁷</i>	Barren Land (Rock/Sand/Clay)	<i>CROSSING LENGTH (MILES)</i>	0.0	0.0	0.0
	Open Water		0.9	0.7	0.7
	Developed, Open Space		5.5	8.4	10.0
	Developed, Low Intensity		0.5	0.3	0.5
	Developed, Medium Intensity		0.0	0.0	0.1
	Deciduous Forest		1.6	1.9	2.9
	Evergreen Forest		0.0	0.0	0.0
	Mixed Forest		0.1	0.1	0.1
	Shrub/Scrub		0.0	0.0	0.0
	Grassland/Herbaceous		136.6	78.3	77.9
	Pasture/Hay		5.3	2.1	2.0
	Cultivated Crops		99.8	180.9	184.6
	Woody Wetlands		1.6	1.7	1.3
	Emergent Herbaceous Wetlands		2.8	0.7	0.6
<i>Hydrology⁸</i>	Artificial Path ⁸	<i>NUMBER OF CROSSINGS</i>	11	15	11
	Canal/Ditch		1	0	1
	Intermittent Stream/River		195	229	205
	Perennial Stream/River		7	21	31
	SUBTOTAL		215	265	248

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Non-Environmental Features					
<i>Number of Pump Stations</i>		<i>NUMBER OF PUMP STATIONS</i>	5	5	6
<i>HCA - Wellhead Protection Areas⁹</i>		<i>CROSSING LENGTH (MILES)</i>	3.5	1.4	1.4
<i>Depth to Shallow Groundwater From CSD Well Data¹⁰</i>	0 - 10 Feet	<i>CROSSING LENGTH (MILES)</i>	27.7	6.0	5.1
<i>Ownership¹¹</i>	Federal	<i>CROSSING LENGTH (MILES)</i>	0.0	0.1	0.3
	State		6.6	5.4	4.8
	Local Government		0.0	0.1	0.2
	Private		248.2	269.7	275.3
<i>Railroad Crossings¹²</i>		<i>NUMBER OF CROSSINGS</i>	7	9	12
<i>Road Crossings¹²</i>	Local Road/Vehicular Trail ¹³	<i>NUMBER OF CROSSINGS</i>	47	63	56
	County Road		24	30	53
	Interstate		2	2	2
	Local Neighborhood Road ¹³		169	221	243
	State Highway		16	17	15
	US Highway		8	9	10
<i>Pipeline Crossings¹⁴</i>	Crude Oil	<i>NUMBER OF CROSSINGS</i>	0	0	0
	Miscellaneous		1	1	1
	Natural Gas		30	35	20
	Refined Products		4	4	4

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<i>Water Wells (Active and Inactive)</i> ¹⁵		<i>NUMBER WITHIN 150 FEET OF CENTERLINE</i>	26	11	15
		<i>NUMBER WITHIN 300 FEET OF CENTERLINE</i>	66	69	57
		<i>NUMBER WITHIN 500 FEET OF CENTERLINE</i>	134	189	148
<i>Pivot Irrigation Crop Crossings</i> ¹⁶		<i>NUMBER OF CROSSINGS</i>	143	326	256
<i>Co-Location</i> ¹⁷	Right-of-Way (Pipeline)	<i>CO-LOCATION LENGTH (MILES)</i>	7.8	7.3	38.3
	Utility Corridors		0.3	0.0	3.3
	Roads		1.5	2.4	13.0

¹Source: Nebraska Natural Heritage Program, Nebraska Game and Parks Commission (NGPC); September 2011.

²Source: Natural Resources Conservation Service (NRCS), 2007. Includes soils in wind erodibility group (WEG) of 1 or 2

³Source: US Department of Transportation – Pipeline and Hazardous Materials Safety Administration (PHMSA)

⁴Source: US Department of Agriculture (USDA), NRCS, 2006

⁵Source: University of Nebraska-Lincoln, Conservation and Survey Division (CSD)/Institute of Agriculture and Natural Resources

⁶Source: US Environmental Protection Agency (EPA)

⁷Source: National Landcover Data (NLCD), 2011

⁸Source: National Hydrology Dataset

⁹Source: Nebraska Department of Environmental Quality (NDEQ), 2014

¹⁰Source: University of Nebraska-Lincoln, CSD Average Groundwater Depth

¹¹Source: Contract Land Staff; previously UFS; Parcel Data along Mainline Option was digitized based on Plat Books

¹²Source: U.S. Census Bureau (TIGER), 2012

¹³Unnamed roads, including private roads and vehicular trails (as classified by MAF/TIGER Feature Class Code)

¹⁴Source: PennWell MAPSearch, 2014

¹⁵Source: Nebraska Department of Natural Resources, 2015

¹⁶Source: Pivot Irrigation Crops were digitized based on 2012 NAIP Imagery

¹⁷Source: Co-location mileage is based on features that are within 250 feet of the centerline, any segments less than 0.25 miles long that cross the centerline were removed since they are considered crossings and not co-location