

APPENDIX W

Past, Present, and Reasonably Foreseeable Future Project Descriptions

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PAST, PRESENT, AND REASONABLY FORESEEABLE FUTURE PROJECT DESCRIPTIONS

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ACRONYMS AND ABBREVIATIONS

bcf/d	billion cubic feet per day
bpd	barrels per day
CAFOs	concentrated animal feeding operations
CEA	cumulative effects assessment
cf/d	cubic feet per day
CVA	Central Valley Agriculture
HVDC	high-voltage direct current
KMIGT	Kinder-Morgan Interstate Gas Transmission
kV	kilovolts
MLV	mainline valves
MMDK	million decatherms
MW	megawatt
PCIC	project cumulative impact corridor
ROW	right-of-way

PAST, PRESENT, AND REASONABLY FORESEEABLE FUTURE PROJECT DESCRIPTIONS

1.0 PAST PROJECTS

Past projects and activities considered in the cumulative effects assessment (CEA) are projects that have been completed and that have physical features established in the existing landscape.

1.1 CRUDE OIL PIPELINES AND STORAGE FACILITIES

1.1.1 Express-Platte Pipeline System

The Express-Platte Pipeline system is owned by Spectra Energy Partners, and comprises two crude oil pipelines, the Express and the Platte (Spectra Energy 2013). The Express pipeline originates in Hardisty, Alberta, Canada, and runs south through central Montana into central Wyoming, where it interconnects with the Platte pipeline near Casper, Wyoming (Spectra Energy 2013). The Express pipeline is within the project cumulative impact corridor (PCIC) from approximately Hardisty to Youngstown, Alberta. The Express pipeline is 24 inches in diameter, and is 785 miles long (Spectra Energy 2013). The total capacity of the Express pipeline is approximately 280,000 barrels per day (bpd) and has been in operation since 1997 (Spectra Energy 2013).

The Platte pipeline originates near Casper, Wyoming, and runs southeast through Wyoming before heading east-southeast across southern Nebraska, through the northeastern tip of Kansas, and across northern Missouri before terminating near Wood River, Illinois (Spectra Energy 2013). The Platte pipeline crosses within the PCIC near Steele City in Jefferson County, Nebraska. The Platte pipeline is 20 inches in diameter and 932 miles long, with a total capacity of approximately 145,000 bpd (Spectra Energy 2013).

1.1.2 Keystone Mainline Pipeline

The Keystone Mainline pipeline is wholly owned and operated by TransCanada PipeLines Limited. The Keystone Mainline is a 2,154-mile long crude oil pipeline originating in Hardisty, Alberta, Canada, and terminating at Wood River and Patoka, Illinois (TransCanada 2012). The pipeline runs east-southeast through southern Alberta, Saskatchewan, and Manitoba (TransCanada 2012). In south-central Manitoba, the pipeline turns south crossing the U.S.-Canada border and running south through eastern North Dakota and South Dakota to Steele City, Nebraska, where one branch heads east through northern Missouri and terminates at Patoka, Illinois (TransCanada 2012).

The second branch from Steele City, Nebraska, is the Keystone Cushing Extension, further described in Section 1.1.3, Keystone Cushing Extension. The Keystone Mainline pipeline is within the PCIC of the proposed Project in southern Jefferson County, Nebraska. The Keystone Mainline began operating in 2010, with an approximate capacity of 435,000 bpd (TransCanada 2012).

1.1.3 Keystone Cushing Extension

The Keystone Cushing Extension is the southern branch of the Keystone Mainline pipeline, which originates in Steele City, Nebraska, and terminates in Cushing, Oklahoma (TransCanada 2012). The Cushing Extension is within the PCIC of the proposed Project in Steele City in Jefferson County, Nebraska. The Cushing Extension began operating in 2011, and has an approximate capacity of 590,000 bpd (TransCanada 2012).

1.1.4 True Company Pipelines

The True Company pipeline system is composed of Bridger Pipeline, LLC, the Belle Fourche Pipeline Co., and the Butte Pipeline Co., which own and operate the following pipelines in Montana, North Dakota, and Wyoming: Belle Fourche pipeline, Bridger Gathering System, Butte pipeline, Four Bears pipeline, and the Poplar System pipelines¹ (Bridger Pipeline 2013). The Belle Fourche pipeline transports crude oil from the Williston Basin in western North Dakota to the Baker, Montana, receiving facility, and is within the PCIC of the proposed Project near Baker, Montana (Belle Fourche Pipeline 2012). The Bridger Gathering System receives crude oil from the Belle Fourche, Four Bears, and Poplar systems and consists of a series of pipelines around Baker, Montana, where it is within the PCIC of the proposed Project.

The Butte pipeline runs north-south between Baker, Montana, and Ft. Laramie, Wyoming, and is within the PCIC of the proposed Project near Baker, Montana. The Four Bears pipeline is a new 12-inch-diameter crude oil pipeline that transports crude oil from McKenzie and Dunn counties, North Dakota, to the Baker, Montana, receiving station, and is within the PCIC of the proposed Project near Baker, Montana. The Poplar pipeline consists of 10- and 12-inch-diameter pipelines that transport crude oil from the eastern Williston Basin to the Baker, Montana, receiving station, and is within the PCIC of the proposed Project near Baker, Montana (Bridger Pipeline 2013).

1.2 REFINED/FINISHED PRODUCT PIPELINES

1.2.1 Cenex Pipeline

The Cenex pipeline is owned and operated by Cenex Pipeline, LLC. The 8-inch-diameter refined products pipeline extends from the Williams Pipeline Terminal in Fargo, North Dakota, through north-central North Dakota and into northeastern Montana to the Cenex Refinery near Billings, Montana (Cenex Pipeline 2012). The Cenex pipeline is within the PCIC of the proposed Project in southeastern Dawson County, Montana.

1.2.2 Magellan Pipeline

The Magellan refined petroleum products pipeline is owned and operated by Magellan Midstream Partners, L.P. The Magellan petroleum products pipeline system runs generally north-south, with portions of the pipeline system located in the following states: North Dakota, Minnesota, Wisconsin, South Dakota, Iowa, Nebraska, Illinois, Missouri, Kansas, Colorado, Oklahoma, Arkansas, and Texas. Product terminals are located in each of the states listed except Wisconsin (Magellan Midstream Partners 2013). The Magellan petroleum products pipeline is within the PCIC of the proposed Project route in southern York County, Nebraska.

¹ Plains All American, L.P. owns the Poplar Pipeline from the Canadian border to Raymond Station, Montana (6 miles south of the border).

1.2.3 NuStar Pipelines: Refined Products and Ammonia

NuStar Energy, L.P. owns and operates crude oil, refined products, and ammonia pipeline systems throughout the central United States. The NuStar East Refined Products pipeline system runs north-south from Jamestown, North Dakota, through eastern South Dakota, western Iowa, eastern and southern Nebraska, and central Kansas. The East Refined Products pipeline is approximately 1,900 miles long, and portions of the pipeline are 16, 10, 8, or 6 inches in diameter. The East Refined Products pipeline carries gasoline, distillates, propane, natural gasoline, and naphtha (NuStar Energy 2012). The East Refined Products pipeline is within the PCIC of the proposed Project's route in southern York County, Nebraska.

One section of the NuStar Ammonia pipeline runs generally east-west from Nebraska through Iowa, Missouri, and Illinois before terminating near Huntington, Indiana; one branch of the Ammonia pipeline runs north-south from Missouri through Arkansas, and terminates in Taft, Louisiana (NuStar Energy 2012). The Ammonia pipeline is approximately 2,000 miles long, and sections are 10, 8, 6, or 4 inches in diameter. The Ammonia pipeline is within the proposed Project route in northwestern York County, Nebraska.

1.3 NATURAL GAS PIPELINES

1.3.1 WBI Energy Transmission

WBI Energy Transmission, formerly known as the Williston Basin Interstate Pipeline Company, owns and operates over 3,700 miles of natural gas transmission lines in North Dakota, South Dakota, Montana, and Wyoming. The pipeline system's annual transport volume is approximately 113.2 million decatherms (MMDK). WBI Energy Transmission also owns and operates the Baker Facility, an underground natural gas storage field near Baker, Montana (WBI Energy Transmission 2012). The WBI Energy Transmission pipeline system is within the PCIC of the proposed Project in northwestern Harding County, South Dakota, near Baker in Fallon County, Montana, and near Nashua, in Valley County, Montana. The Baker facility natural gas storage field is within the PCIC of the proposed Project near Baker in Fallon County, Montana.

1.3.2 Northern Border Pipeline

The Northern Border pipeline, an existing natural gas pipeline, is owned by the Northern Border Pipeline Company, operated by TransCanada and Oneok Partners (Northern Border Pipeline Company 2012, TransCanada 2012). The pipeline is 1,249 miles long, originating at the Port of Morgan, Montana, and running generally southeast through North Dakota, northeastern South Dakota, southwestern Minnesota, central Iowa, and northern Illinois before terminating near North Hayden, Indiana. The pipeline is 42 inches in diameter, and has a system receipt capacity of 2.37 billion cubic feet per day (bcf/d) (Northern Border Pipeline Company 2012). The pipeline has been in service since 1982.

Portions of the Northern Border pipeline would be within the PCIC of the proposed Project in northeastern Montana, in northeastern Phillips County and northwestern Valley County. The proposed Project right-of-way (ROW) would parallel the Northern Border pipeline for approximately 21.5 miles beginning at the U.S.-Canada border near Morgan, Montana. The Northern Border pipeline's permanent ROW has been reclaimed, and routine maintenance and refurbishment activities would continue along the ROW during construction and operation of the proposed Project.

1.3.3 Northern Natural Gas Company

The Northern Natural Gas Company owns and operates 14,900 miles of pipeline throughout Michigan, Wisconsin, Minnesota, South Dakota, Iowa, Illinois, Nebraska, Kansas, Oklahoma, New Mexico, and Texas. The system of pipelines has been in operation since 1930, and has a market area design capacity of 5.5 bcf/d, with pipe sizes ranging from 2 to 36 inches in diameter (Northern Natural Gas 2012). The Northern Natural Gas Company pipeline system is within the PCIC of the proposed Project route in southern Jefferson County, Nebraska, and southwestern Saline County, Nebraska.

1.3.4 Rockies Express West

The Rockies Express West natural gas pipeline is jointly owned and operated by Kinder-Morgan, Sempra Pipelines and Storage, and ConocoPhillips. The Rockies Express West pipeline is 1,679 miles long, and extends generally east-west from Cheyenne, Wyoming to central Missouri, where it continues as the Rockies Express East pipeline into Clarington, Ohio. The Rockies Express East pipeline went into operation in 2009, and the entire Rockies Express West and East system has a capacity of 1.8 bcf/d (Kinder-Morgan 2012a). The Rockies Express West pipeline is within the PCIC of the proposed Project near Steele City in Jefferson County, Nebraska.

1.3.5 Bison Natural Gas Pipeline

The Bison Natural Gas pipeline is owned by Bison Pipeline, LLC, which is owned by TransCanada and its subsidiaries. The Bison pipeline extends from southwestern North Dakota to northeastern Wyoming, is approximately 302 miles long, and is 30 inches in diameter. The pipeline has been in operation since 2011, and has an operating capacity of 407 million cf/d, with potential expansion to 1 bcf/d (Bison Pipeline 2012). The Bison pipeline is within the PCIC of the proposed Project in southeastern Fallon County, Montana.

1.3.6 Kinder-Morgan Interstate Gas Transmission

The Kinder-Morgan Interstate Gas Transmission (KMIGT) system is owned and operated by Kinder-Morgan Interstate Gas Transmission LLC, and extends from central Wyoming through northeastern Colorado and northwestern Kansas, and covers most of Nebraska. The total system length is approximately 5,100 miles, with approximately 10 bcf of firm capacity commitments (Kinder-Morgan 2012b). The KMIGT system is within the PCIC of the proposed Project in Fillmore, York, Boone, Antelope, and Holt counties in Nebraska. The KMIGT system is within the PCIC of the proposed Project route in York, Merrick, Nance, and Holt counties, Nebraska.

1.3.7 Trailblazer Pipeline

The Trailblazer pipeline is owned and operated by the Trailblazer Pipeline Company LLC, a wholly owned Kinder-Morgan company (Kinder-Morgan 2012c). The Trailblazer pipeline extends approximately 175 miles from the Rockies Express West pipeline in Gosper County, Nebraska, to Beatrice, Nebraska (Kinder-Morgan 2012b). The Trailblazer pipeline is within the PCIC of the proposed Project in southern Saline County, Nebraska.

1.3.8 Natural Gas Pipeline Company of America: Amarillo Line

The Natural Gas Pipeline Company of America is owned and operated by NGPL PipeCo LLC, which is wholly owned by Kinder-Morgan, Inc. The natural gas pipeline system is over 10,000 total miles of pipeline, with a 265 bcf working gas storage capacity (Kinder-Morgan 2012d). The system consists of two primary pipeline routes. The first route runs from Chicago, Illinois, west to Nebraska, then southwest through central Kansas, northwestern Oklahoma and Texas, and southeastern New Mexico. The second route runs from Chicago, Illinois, south through southeastern Missouri, central Arkansas, and eastern Texas (Kinder-Morgan 2012b). The Natural Gas Pipeline Company of America system is within the PCIC of the proposed Project near Steele City in Jefferson County, Nebraska.

1.3.9 Central City Gas System

The Central City Gas System is owned and operated by Central City, Nebraska, and has been in operation since the 1940s. The system is composed of individual service lines between 0.75 and 1.75 inches in diameter, up to a 6-inch-diameter transmission line (Central City Utilities 2012). The Central City Gas System is within the PCIC of the proposed Project in southern Polk County, Nebraska and in northeastern Hamilton County, Nebraska.

1.3.10 SourceGas, LLC

The SourceGas natural gas pipeline system is owned and operated by SourceGas Distribution, LLC, and is located within portions of Colorado, Wyoming, and Nebraska. The SourceGas Nebraska pipeline serves the western two-thirds of Nebraska, and consists of approximately 5,000 miles of transmission and distribution pipelines (SourceGas 2007). The SourceGas pipeline system is within the PCIC of the proposed Project in Boone, Holt, and Greeley counties, Nebraska.

1.3.11 Bakken NGL Pipeline

In April 2013, Oneok Partners announced the completion of the Bakken Natural Gas Liquids (NGL) pipeline. The 600-mile pipeline has the capacity to transport 60,000 barrels per day of unfractionated NGLs from the Williston Basin to northern Colorado, where it intersects with Oneok's Overland Pass pipeline (Oneok Partners 2013).

1.4 WATER DELIVERY SYSTEM

1.4.1 Perkins County Rural Water System

The Perkins County Rural Water System is an extension of the Southwest pipeline from Lake Sakakawea in North Dakota. The rural water system, completed in 2007, serves approximately 2,500 residents of Perkins County (FedGazette 2005). Exact pipeline locations are not available; the proposed Project runs through southwestern Perkins County and the water system may be within the PCIC of the proposed Project.

1.4.2 Mni Wiconi Rural Water Supply System

The Mni Wiconi Rural Water Supply System is intended to deliver drinking water for residents of three tribal water systems and one non-tribal system in south-central South Dakota, managed by the U.S. Bureau of Reclamation, Department of the Interior (U.S. Bureau of Reclamation 2012). When completed, the project will be a network of 4,400 miles of 10- and 12-inch-diameter pipeline serving more than 51,000 people in 10 South Dakota counties (Natural Resources Defense Council 2012). Exact pipeline locations are not available, but the water system will be located in the following South Dakota counties, through which the proposed Project would pass: Haakon, Jones, Lyman, and Tripp. Federal funding for the system was projected to end in 2013, and a majority of the system is completed. However, because some portions of the system remain incomplete, the Mni Wiconi Project Act Amendments of 2013 (S. 684) seek to raise the funding ceiling and extend completion of the system to 2016 (U.S. Senate 2013).

1.5 ELECTRICAL TRANSMISSION LINES

The U.S. electric grid consists of higher voltage transmission lines ranging from 345 to 1,000 kilovolts (kV) located across the country (National Public Radio [NPR] 2009). Existing transmission lines of lower-range voltage of 345 to 499-kV are located in eastern and western Nebraska, and eastern and southwestern South Dakota. Specific locations of transmission lines, substations, and power generation facilities were not available. Transmission lines are likely to cross within the PCIC of the proposed Project route.

1.6 RAILROADS

1.6.1 Union Pacific Railroad

The Union Pacific Railroad operates on approximate 32,000 miles of track in 23 states (Union Pacific 2012). In Nebraska, the Union Pacific Railroad runs generally east-west across the southern half of the state in the west, and splits into a northern and southern line in Kearney County, Nebraska (Nebraska Department of Roads [NDOR] 2009). The northern line intersects the PCIC of the proposed Project route in Merrick County, Nebraska. The southern line intersects the proposed Project in Jefferson County, Nebraska.

1.6.2 BNSF Railway

The BNSF Railway operates on approximately 32,000 miles of track in 28 states and two Canadian provinces (BNSF Railway Company 2012). In Nebraska, the BSNF rail lines cross generally east-west across the central and southern portions of the state, with north-south routes along the eastern and western borders of the state (NDOR 2009). In South Dakota, BNSF operates rail lines primarily in the eastern portion of the state, and across the northern border (South Dakota Department of Transportation [SD DOT] 2009). BNSF operates rail lines throughout Montana, including the eastern and northern portions of the state (Montana State Library 2012). BNSF rail lines are within the PCIC of the proposed Project route in Fillmore and York counties, Nebraska, and Fallon, Dawson, and Valley counties, Montana.

1.6.3 Nebraska Central Railroad Company

The Nebraska Central Railroad Company consists of 340 miles of track in eastern Nebraska (RioGrand Pacific 2011). The Nebraska Central Railroad Company lines cross within the PCIC of the proposed Project in Polk, Nance, and Boone counties, Nebraska.

1.6.4 Nebraska Northeastern Railway

The Nebraska Northeastern Railway operates on approximately 120 miles of track in northeastern Nebraska, running generally east-west from the Missouri River to O'Neill, Nebraska (NDOR 2009). The Nebraska Northeastern Railway lines cross the PCIC of the proposed Project in Antelope and Holt counties, Nebraska.

1.6.5 CP/Dakota, Minnesota & Eastern

The CP/Dakota, Minnesota & Eastern railroad operates on 574 miles of track running generally east-west through central South Dakota, and generally north-south through western South Dakota (SD DOT 2009). The CP/Dakota, Minnesota & Eastern lines cross the PCIC of the proposed Project in Haakon County, South Dakota.

1.6.6 South Dakota Owned/Dakota Southern Operated

The South Dakota Owned/Dakota Southern Operated Railroad operates on 190 miles of track that runs generally east-west across southern South Dakota along the route of Interstate 90 (SD DOT 2009). The South Dakota Owned/Dakota Southern Operated Railroad is within the PCIC of the proposed Project in Jones County, South Dakota.

1.7 WIND FARMS

1.7.1 Diamond Willow Wind Farm

The Diamond Willow Wind Farm is owned and operated by Montana-Dakota Utilities and is located near Baker in Fallon County, Montana. The first phase of development was completed in 2008 with an expansion in 2010 for a total of 20 General Electric 1.5-megawatt (MW) turbines (Montana Department of Environmental Quality 2012). The exact acreage and extent of the wind farm is not available, but portions of the farm are likely within the PCIC of the proposed Project near Baker, Montana.

1.7.2 Laredo Ridge Wind Farm

The Laredo Ridge Wind Farm is located on approximately 7,600 acres of land, 3 miles northeast of Petersburg in Boone County, Nebraska. The site operates 54 1.5-MW turbines, with an approximate total power supply of 80-MW (Midwest Wind Energy 2008). The Laredo Ridge Wind Farm is within the PCIC of the proposed Project in Boone County, Nebraska.

1.8 LANDFILLS

Three landfills were identified within the PCIC of the proposed Project route. Two of the landfills are closed; one is located near Baker, Montana, and one is near Nashua, Montana (Montana State Library 2012). One active landfill near O'Neill, Nebraska, accepts construction and demolition debris (Nebraska Department of Environmental Quality 2011).

1.9 POWER PLANTS

One power generation facility was identified in York, Nebraska, as the Mobile Petroleum Plant, operated by the Nebraska Public Power District. The facility provides 3.1-MW of electricity generated from petroleum (Nebraska Public Power District 2012). The facility is within the PCIC of the proposed Project in York County, Nebraska.

1.10 GRAZING LANDS

Land use data indicate that the majority of undeveloped land in Nebraska, South Dakota, and Montana is used for grazing herd animals. Grazing lands are likely to be within the PCIC of the proposed Project in undeveloped portions of the counties through which the proposed pipeline would run.

1.11 OIL AND GAS WELL FIELDS

High-producing oil and gas well fields are located in northwestern South Dakota and northeastern Montana as part of the Williston Basin (U.S. Energy Information Administration [EIA] 2013). Oil and gas wells not located within a high-producing well field are considered “wildcat” wells and may be located through any portion of South Dakota and Montana. One primary field, Buffalo, is located in Harding County, South Dakota, and contains many wells within the PCIC of the proposed Project (South Dakota Department of Environment and Natural Resources 2013). Well fields within the PCIC in Montana include the Gas Light, Plevna, Plevna South, and Cedar Creek in Fallon County; and the Weldon field in McCone County (EIA 2013). Additionally, a natural gas storage facility is located in Baker, Fallon County, Montana.

1.12 MINE AND MINERAL EXTRACTION SITES

Thirty mine and mineral extraction sites were identified within the PCIC of the proposed Project route in Fallon, Dawson, McCone, and Valley counties, Montana. Of those, four were active gravel pits, one was an active surface coal field, nineteen were abandoned coal fields, one was an active bentonite surface mine, and five were abandoned surface mines without additional details on the previously mined mineral type (Montana State Library 2012).

Twenty-two mine and mineral extraction sites were identified within the PCIC of the proposed Project route in Tripp, Jones, Haakon, Meade, and Harding counties, South Dakota. Of those, 11 were active sand and gravel pits and 11 were inactive sand and gravel pits.

Twenty-two mine and mineral extraction sites were identified within the PCIC of the proposed Project route in Keya Paha, Boyd, Holt, Antelope, York, Fillmore, and Jefferson counties, Nebraska. Of those, five were active sand and gravel pits, thirteen were abandoned sand and gravel pits, and four were inactive sand and gravel pits.

1.13 FEEDLOTS

A feedlot is a type of animal feeding operation which is used in factory farming. Very large feedlots are classified as *concentrated animal feeding operations*, or CAFOs, and are used to increase the size of livestock before slaughter. The National Agricultural Statistic Service has compiled a map of the largest agricultural operations (more than 10,000 cattle and calves) for the

state of Nebraska (National Agricultural Statistics Service 2012, U.S. Environmental Protection Agency 2012).

1.14 GRAIN AND AGRONOMY HUBS

1.14.1 Central Valley Agriculture, Clarks Location

The Central Valley Agriculture (CVA) Clarks location is an agronomy hub that offers fertilizers, chemicals, insecticides, seed and seed treatments, custom application, and precision technology and scouting services to the agricultural sector in Central Nebraska (CVA 2011, CVA 2012). The CVA Clarks location is within the PCIC of the proposed Project route in northeastern Merrick County, Nebraska.

1.14.2 Central Valley Agriculture, Royal Location

The CVA Royal location is an agronomy and grain hub that offers and ships grain, fertilizers, chemicals, insecticides, seed and seed treatments, custom application, and precision technology and scouting services to the agricultural sector in central Nebraska. The facility has 3.4 million bushels of grain storage and a 40,000 bushel per hour unloading capacity. This CVA Royal location includes a 120-car shuttle train load-out platform and an oval track that surrounds the site. Facility construction was completed in September 2013 along the Nebraska Northeastern Railway, which connects to the BNSF railway (CVA 2011, CVA 2012, CVA 2013). The CVA Royal facility is within the PCIC of the proposed Project route in northwestern Antelope County, Nebraska.

2.0 PRESENT PROJECTS

Present projects and activities considered in the CEA are those that have been approved and are under construction.

2.1 CRUDE OIL PIPELINES AND STORAGE FACILITIES

Construction on the TransCanada Gulf Coast pipeline began in August 2012 and was completed in 2013. TransCanada anticipates pipeline operation to begin in January 2014 (TransCanada 2013). The Gulf Coast project consists of 484 miles of new pipeline through Oklahoma and Texas, and will transport crude oil from Cushing, Oklahoma, south to Nederland, Texas (TransCanada 2012). Approximately 393 miles (82 percent) of the total 484 miles would be within approximately 300 feet of existing pipelines, utilities, or road ROWs. The remaining 87 miles (18 percent) would be in new ROWs. Keystone proposes to construct a tank farm on an approximately 74-acre site that is about 2,000 feet from the southern end of the existing Cushing Oil Terminal. The Gulf Coast project affected approximately 8,542 acres during construction. After project completion, the temporary 110-foot-wide ROW that is necessary during construction activities will be reduced to 50 feet of permanent ROW, which would be maintained for the life of the project. Total acreage that would be permanently affected is 3,121 acres. Additionally, the pipeline requires the construction of several ancillary facilities such as pump stations, tank farms, intermediate mainline valves (MLVs), and access roads.

2.2 WATER DELIVERY SYSTEMS: DRY PRAIRIE RURAL WATER SYSTEM

The Dry Prairie Rural Water System is currently under construction in northeastern Montana, and will include water pipelines in Valley, Daniels, Sheridan, and Roosevelt counties (Dry Prairie Rural Water Authority 2006). To date, approximately 30 percent of the system has been completed. The water system will cross the PCIC of the proposed Project in Valley County, Montana, near the town of Nashua, where a 14-inch-diameter section of pipeline will run east-west across southern Valley County, and south of St. Marie, Montana, where a 6-inch-diameter section of pipeline will run north-south through central Valley County.

2.3 HIGHWAY CONSTRUCTION

Current highway construction projects in Montana include maintenance and repairs to US-12 within the PCIC of the proposed Project route in Fallon County, and maintenance and repairs to MT-200 within the PCIC of the proposed Project route in McCone County (Montana Department of Transportation 2013). Current highway construction projects in South Dakota include repairs to US-18, potentially within the PCIC of the proposed Project near Winner, South Dakota (SD DOT 2013).

No current highway construction in Nebraska is within the proposed Project PCIC (NDOR 2013a, NDOR 2013b).

3.0 REASONABLY FORESEEABLE FUTURE PROJECTS

3.1 CRUDE OIL PIPELINES AND STORAGE FACILITIES

3.1.1 Bakken Marketlink Project

The Bakken Marketlink Project is a connected action proposed by TransCanada to provide crude oil transportation service from near Baker, Montana, to Cushing, Oklahoma. This project includes a crude oil pipeline and tankage facilities near Baker, Montana, as well as connecting pipelines, manifolds, metering stations, and associated facilities. The project is proposed to transport up to 100,000 bpd of crude oil. The Bakken Marketlink Project would compete in the market with other transport options to move Williston Basin crude to refiners in other areas of the country, and its completion is dependent on whether the proposed Project is built.

3.2 ELECTRICAL DISTRIBUTION LINES AND SUBSTATIONS

3.2.1 Big Bend to Witten 230-kV Transmission Line (aka Lower Brule to Witten Transmission Line)

The Big Bend to Witten 230-kV transmission line is a connected action to the proposed Project. The Basin Electric Power Cooperative proposed the construction of an approximately 70-mile, high-voltage transmission line from a new substation near the Big Bend Dam to an existing substation in Witten, South Dakota (Basin Electric Power Cooperative 2013). The proposed transmission lines would potentially cross within the PCIC of the proposed Project route in Lyman and Tripp counties, South Dakota.

3.2.2 Chinook Project

TransCanada proposed the construction of a high-voltage direct current (HVDC) transmission line originating in Montana, traveling through Idaho, and delivering electricity to Las Vegas, Nevada, with future extensions to Los Angeles, California, and Phoenix, Arizona. The proposed line would be rated at approximately 3,000-MW, and sourced from coal and wind generation resources in Montana (Montana Department of Commerce 2012). A 2010 article in the Billings Gazette indicated that the project was put on hold by the developers, TransCanada. The proposed transmission lines would potentially be within the PCIC of the proposed Project in eastern Montana.

3.2.3 New 765-kV Electric Transmission Lines

A proposed expansion of the U.S. electric grid would involve the construction of new 765-kV electric transmission lines across the country (NPR 2009). These transmission lines would potentially be within the PCIC of the proposed Project route in eastern Nebraska, southern and eastern South Dakota, and in southeastern Montana.

3.3 WATER DELIVERY SYSTEMS

The Dry-Redwater Water Authority rural water system is a proposed rural water transport system through Richland, Dawson, McCone, Prairie, and Garfield counties, Montana (Dry-Redwater Regional Water Authority 2011). The proposed water system would potentially be within the PCIC of the proposed Project in McCone and Dawson counties, Montana.

3.4 PROPOSED HIGHWAY CONSTRUCTION

The respective state departments of highways authorities have forecast future highway rehabilitation projects, through 2017 in some cases, in Montana, South Dakota, and Nebraska that would fall within the PCIC of the proposed Project (Montana Department of Transportation 2013; Nebraska Department of Roads 2013a, 2013b; South Dakota Department of Transportation 2013). These proposed projects involve the resurfacing and repair of existing highways and bridges, and would not involve the construction of large-scale new infrastructure projects. However, a portion of the proposed Ports to Plains Alliance Highway, the Theodore Roosevelt Highway, would involve the expansion of existing U.S. Route 85 from a two-lane highway to a four-lane highway (Theodore Roosevelt Expressway 2013). This proposed expansion would be within the PCIC of the proposed Project in Harding County, South Dakota, near the town of Buffalo.

Primary impacts of the highway rehabilitation projects include the short-term alteration of soils, visual resources, water resources, air quality (primarily dust), and noise. Primary impacts of the proposed expansion of U.S. Route 85 would include permanent alteration of soils, water resources, wetlands, terrestrial vegetation, land use, socioeconomics, and air and noise. Cumulative impacts are possible across these resources where highway rehabilitation and construction projects occur within the geographic proximity of the proposed Project.

3.5 PROPOSED WIND FARMS

One unnamed wind farm project is proposed for construction on state-owned land in Valley County, Montana, and is anticipated to have a 100 to 299 MW capacity, with construction beginning in 2 to 3 years (The Policy Institute 2010). The project would potentially be within the PCIC of the proposed Project in Valley County, Montana.

Four proposed wind farms were identified in South Dakota as potentially being with the PCIC of the proposed Project route. Two proposed farms, New Underwood North and New Underwood South, would be located in southeastern Haakon County, with an anticipated 50- to 125-MW capacity. Two proposed farms, Basin Electric SD-2 and Basin Electric SD-3, would be located in Tripp and Jones counties, respectively, both with an anticipated 50- to 125-MW capacity (South Dakota Energy Development 2011).

One wind farm, Grand Prairie, is proposed to be located in Holt County, Nebraska, approximately 12 miles northeast of O'Neill. The project is currently undergoing NEPA review. The project is anticipated to have a 400-MW capacity, and would be tied into the existing Western Area Power 345-kV Fort Thompson to Grand Island transmission line (Western Area Power Administration 2012). Based on information provided by the Western Area Power Administration, the project location would be within the PCIC of the proposed Project through Holt County, Nebraska.

4.0 REFERENCES

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