



**WBI ENERGY TRANSMISSION, INC.**

**Valley Expansion Project**

**FERC Docket No. CP17- -000**

**Resource Report No. 5**

**Socioeconomics**

**FINAL**

*Volume II – Public*

**April 2017**

## RESOURCE REPORT NO. 5 – SOCIOECONOMICS

### SUMMARY OF FILING INFORMATION

<b>Minimum Requirement</b>	<b>Location Addressed</b>
For major aboveground facilities and major pipeline projects that require an EIS, describe existing socioeconomic conditions within the project area. (§ 380.12(g)(1))	Section 5.1
For major aboveground facilities, quantify impact on employment, housing, local government services, local tax revenues, transportation, and other relevant factors within the project area. (§ 380.12(g)(2-6))	Section 5.2
<b>Additional Information</b>	
Evaluate the impact of any substantial immigration of people on governmental facilities and services and describe plans to reduce the impact on local infrastructure.	Section 5.2.4
Describe on-site manpower requirements, including the number of construction personnel who currently reside within the impact area, would commute daily to the site from outside the impact area, or would relocate temporarily within the impact area.	Sections 5.2.1 and 5.2.2
Estimate total worker payroll and material purchases during construction and operation.	Section 5.2.5
Determine whether existing housing within the impact area is sufficient to meet the needs of the additional population.	Section 5.2.3
Describe the number and types of residences and businesses that would be displaced by the project, procedures to be used to acquire these properties, and types and amounts of relocation assistance payments.	Section 5.2.6
Conduct a fiscal impact analysis evaluating incremental local government expenditures in relation to incremental local government revenues that would result from construction of the project. Incremental expenditures include, but are not limited to, school operating costs, road maintenance and repair, public safety, and public utility costs.	Section 5.2.5

FERC Comments on Draft Resource Report 5 – Socioeconomics	Location Addressed, and/or Response to Comment
<b>MARCH 15, 2017 COMMENTS</b>	
1. Provide the vacancy rate for hotels, motels, and campgrounds/RV Parks.	Section 5.1.3
2. Provide an estimate of project-related traffic during construction including: <ul style="list-style-type: none"> <li>a. an estimate of anticipated number of vehicles, trips, and timeframes for construction related activities; and</li> <li>b. traffic related to delivery of construction equipment and materials.</li> </ul>	Section 5.2.4 and Table 5.2.4-1

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**Abbreviations and Acronyms**

Commission	Federal Energy Regulatory Commission
EO	Executive Order
FERC	Federal Energy Regulatory Commission
FMADP	Fargo-Moorhead Area Diversion Project
MP	milepost
Project	Valley Expansion Project
RV	recreational vehicle
Viking	Viking Gas Transmission Company
WBI Energy	WBI Energy Transmission, Inc.

## **5.0 SOCIOECONOMICS**

WBI Energy Transmission, Inc. (WBI Energy) owns and operates a natural gas transmission pipeline system and associated aboveground facilities in the states of North Dakota, South Dakota, Montana, and Wyoming. WBI Energy is filing an abbreviated application with the Federal Energy Regulatory Commission (FERC or Commission) pursuant to Section 7(c) of the Natural Gas Act (NGA), as amended, and Title 18 Code of Federal Regulations, Part 157 of the Commission's regulations requesting approval to construct, install, operate, and maintain the proposed facilities described below.

WBI Energy is proposing to construct, install, operate, and maintain the Valley Expansion Project (Project), which will consist of approximately 37.3 miles of 16-inch diameter natural gas pipeline from a proposed interconnect with the existing Viking Gas Transmission Company (Viking) pipeline near Felton, Minnesota (milepost [MP] 0.0) to a new electrical-driven compressor station near Mapleton, North Dakota (MP 37.3) that will be tied into WBI Energy's Line Section 24. Associated auxiliary facilities will also be constructed with the Project. In order to provide the volumes of natural gas requested through the open season process, WBI Energy will also replace two existing town border stations and construct a regulator station in Burleigh, Stutsman, and Barnes Counties, North Dakota, respectively. Construction of each facility will involve a new footprint; therefore, these facilities are evaluated in this environmental report. A complete description of the Project facilities is provided in section 1.1 of Resource Report 1.

Resource Report 5 includes a description of the current social and economic conditions relevant to the Project facilities including population, demographics, economy and taxes, employment, housing, public services, and property values. State, county, municipal, and census tract data were reviewed to assess current socioeconomic conditions and the potential effects from construction and operations of the Project facilities and mitigation measures.

### **5.1 EXISTING SETTING**

The socioeconomic effects area for the Project includes Clay County, Minnesota and Cass, Barnes, Stutsman, and Burleigh counties, North Dakota, and the incorporated communities located within 10 miles of the pipeline route and aboveground facilities. Existing socioeconomic conditions in the Project area were assessed using the following data sources: U.S. Census Bureau and other publicly available online sources (e.g., Google and Google Earth). U.S. Census Bureau multi-year estimates are used due to the increased statistical reliability of the data for less populated areas and small population subgroups.

#### **5.1.1 Population**

Population characteristics for each state, county, and incorporated community located within the socioeconomic effects area for the Project are provided in table 5.1.1-1. According to U.S. Census Bureau data from the 2010 census and the 2011-2015 American Community Survey 5-year Estimates, Cass and Burleigh counties, North Dakota are the largest counties in the Project area and have both experienced population growth of 8.5 percent since 2010, which is approximately 1.2 percent higher than the state average of 7.3 percent growth. Clay County, Minnesota has experienced population growth since 2010 that is approximately 1.0 percent higher than the state average. Population levels in Barnes and Stutsman counties, North Dakota since 2010 have been significantly lower than the state average; population levels in Stutsman County have decreased since 2010 (U.S. Census Bureau, 2016a).

Within the socioeconomic area of effect for the Project, communities such as Lincoln, Harwood, Gardner, Prairie Rose, and West Fargo, North Dakota have experienced population growth that is significantly higher than the state average. In contrast, communities such as Felton, Borup, and Georgetown, Minnesota and

Sanborn, Amenia, and Argusville, North Dakota, have experienced significant declines in population levels since 2010.

### **5.1.2 Economy and Employment**

Information regarding economic and employment conditions within the area of socioeconomic effects for the Project is provided in table 5.1.1-1. According to U.S. Census Bureau 2011-2015 American Community Survey 5-Year Estimates, the per capita annual income in Barnes and Burleigh counties, North Dakota is slightly above the statewide levels while the per capita income in Cass and Stutsman counties is slightly lower than state levels. Of all the counties within the socioeconomic area of effect, annual per capita incomes in Clay County, Minnesota are the lowest at \$25,896, which is less than the average per capita income in Minnesota of \$32,157. Of the communities within the socioeconomic area of effect in Minnesota, Felton has the highest per capita income with \$37,466, while Perley has the lowest per capita income with \$15,371, which is more than \$17,000 less than the state average. Of the communities located within the area of socioeconomic effect in North Dakota, Prairie Rose has the highest annual per capita income with \$42,711, which is more than \$10,000 above the state average, while Gardner has the lowest per capita income with \$21,261.

The unemployment rate in Clay County, Minnesota is about 1.3 percent lower than the state average of 5.6 percent. Unemployment rates in the communities of Felton and Borup are significantly lower than the state and county averages at 0.0 percent, while the unemployment rate in Ulen is approximately 1.4 percent higher than the state average and 2.7 percent higher than the county average. In North Dakota, unemployment rates in Barnes, Stutsman, and Burleigh counties range from 0.4 to 0.6 percent lower than the state average, while unemployment rates in Cass County are about 0.3 percent higher than the state average. Of the communities within the area of socioeconomic effect in North Dakota, Argusville, Gardner, North River, Reiles Acres, and Sanborn have 0.0 percent unemployment, while Rogers and Amenia have higher than average unemployment rates of 8.7 and 5.0 percent, respectively.

Of the counties crossed by the Project, Cass County, North Dakota has the largest civilian labor force with 97,777 persons, followed by Burleigh County, North Dakota; Clay County, Minnesota; and Stutsman and Barnes counties, North Dakota, respectively. In general, the primary employment sectors in the area of socioeconomic effects for the Project are education, health, and social services; retail trade; manufacturing; agriculture; and professional, scientific, management, administrative, and waste management services. Information regarding the primary employment sectors for each county and community is provided in table 5.1.1-1.

TABLE 5.1.1-1

## Existing Socioeconomic Conditions in the Project Area

Country, State, County, Community	2010 Population <sup>a</sup>	2015 Population Estimate <sup>b</sup>	Percent Change 2010 – 2015 <sup>c</sup>	Per Capita Annual Income <sup>b</sup>	Civilian Labor Force <sup>b</sup>	Unemployment Rate <sup>b</sup> (%)	Major Employment Sectors <sup>b,d</sup>
<b>United States</b>	308,746,065	316,515,021	2.5	\$28,930	158,897,824	8.3	E, R, P
<b>Minnesota</b>	5,303,925	5,419,171	2.2	\$32,157	2,994,959	5.6	E, M, R
Clay Co.	58,999	60,879	3.2	\$25,896	34,588	4.3	E, R, M
Ulen	547	550	0.5	\$24,336	214	7.0	E, R, T
Felton	86	47	-45.3	\$37,466	30	0.0	Ag, P, I
Borup	110	83	-24.5	\$26,855	53	0.0	Ag, E, A
Georgetown	129	113	-12.4	\$15,371	51	3.9	M, A, P
Perley	92	92	0.0	\$23,934	64	4.7	E, R, C
Moorhead	38,065	40,935	7.5	\$24,229	23,862	5.0	E, R, A
<b>North Dakota</b>	672,591	721,640	7.3	\$32,035	399,180	2.9	E, R, Ag
Cass Co.	149,778	162,500	8.5	\$31,795	97,777	3.2	E, R, M/A
Argusville	475	449	-5.5	\$33,804	231	0.0	E, P, M
Gardner	74	88	18.9	\$21,261	48	0.0	E, R, O
Harwood	718	869	21.0	\$34,499	548	0.9	E, R, C
North River	56	59	5.4	\$40,608	43	0.0	E, T, I
Reiles Acres	513	511	-0.4	\$39,093	281	0.0	E, R, F
Fargo	105,549	113,464	7.5	\$30,023	69,445	3.8	E, R, A
West Fargo	25,830	29,892	15.7	\$33,248	17,736	1.1	E, R, M
Prairie Rose	73	87	19.2	\$42,711	51	2.0	R, E, O
Mapleton	762	798	4.7	\$25,290	445	4.0	E, R, M
Casselton	2,329	2,466	5.9	\$28,227	1,263	2.9	E, R, W/T
Amenia	94	83	-11.7	\$25,912	40	5.0	E, M, R
Barnes Co.	11,066	11,097	0.3	\$33,016	6,032	2.4	E, Ag, M
Sanborn	192	149	-22.4	\$27,055	106	0.0	M, E, T
Valley City	6,585	6,626	0.6	\$32,787	3,695	3.0	E, A, M
Rogers	46	46	0.0	\$23,298	23	8.7	M, R, P
Stutsman Co.	21,100	21,076	-0.1	\$29,490	11,433	2.5	E, M, R
Jamestown	15,427	15,418	-0.1	\$27,330	8,316	2.4	E, M, R
Burleigh Co.	81,308	88,223	8.5	\$34,813	50,562	2.3	E, R, P
Bismarck	61,272	66,980	9.3	\$33,824	38,229	2.1	E, R, P
Lincoln	2,406	3,093	28.6	\$27,945	1,804	3.4	E, C, R



TABLE 5.1.1-1

Existing Socioeconomic Conditions in the Project Area

Country, State, County, Community	2010 Population <sup>a</sup>	2015 Population Estimate <sup>b</sup>	Percent Change 2010 – 2015 <sup>c</sup>	Per Capita Annual Income <sup>b</sup>	Civilian Labor Force <sup>b</sup>	Unemployment Rate <sup>b</sup> (%)	Major Employment Sectors <sup>b, d</sup>
<p><sup>a</sup> U.S. Census Bureau, 2010. Profile of General Population and Housing Characteristics, 2010 Demographic Profile Data. Available online at: <a href="https://factfinder.census.gov/faces/nav/jsf/pages/community_facts.xhtml">https://factfinder.census.gov/faces/nav/jsf/pages/community_facts.xhtml</a>.</p> <p><sup>b</sup> U.S. Census Bureau. n.d. 2011-2015 American Community Survey 5-year Estimates. Available online at: <a href="https://www.census.gov/acs/www/data/data-tables-and-tools/data-profiles/2014/">https://www.census.gov/acs/www/data/data-tables-and-tools/data-profiles/2014/</a>. Accessed November 2016.</p> <p><sup>c</sup> Negative percentage represents a decrease in population numbers.</p> <p><sup>d</sup> Industries:</p> <p>A = Arts, entertainment, recreation, and accommodation and food services</p> <p>Ag = Agriculture, forestry, fishing and hunting, and mining</p> <p>C = Construction</p> <p>E = Educational, health, and social services</p> <p>F = Finance and insurance, real estate, and rental and leasing</p> <p>I = Information</p> <p>M = Manufacturing</p> <p>O = Other services, except public administration</p> <p>P = Professional, scientific, management, administrative, and waste management services</p> <p>Pu = Public administration</p> <p>R = Retail trade</p> <p>T = Transportation and warehousing, and utilities</p> <p>W = Wholesale Trade</p>							

### 5.1.3 Housing

A housing unit is defined by the U.S. Census Bureau as a house, apartment, mobile home, group of rooms, or single room occupied or intended for occupancy as a separate living quarters (U.S. Census Bureau, 2017). According to U.S. Census Bureau 2010 census housing data, there are a total of 9,306 vacant housing units in the affected counties in the Project area. Cass County, North Dakota has the highest number of vacant housing units with 4,039 units and Barnes County, North Dakota has the lowest with 878 units. Vacant housing units include units available for rent, sale, or seasonal, recreational, or occasional use, as well as units available for migrant worker and other uses. Rental vacancy rate estimates provided in the 2011-2015 American Community Survey 5-year Estimates show rental vacancy rates are highest in Clay County, Minnesota (6.7 percent) followed by the North Dakota counties as follows: Stutsman County (5.7 percent), Cass County (4.3 percent), Barnes County (3.3 percent), and Burleigh County (2.5 percent). Housing data for the counties and communities within the socioeconomic area of effect for the Project are provided in table 5.1.3-1 below.

State, County, Community	Owner-occupied Housing <sup>a</sup>	Renter-occupied Housing <sup>a</sup>	Vacant Housing Units <sup>a</sup>	Rental Vacancy Rate <sup>b</sup>
<b>Minnesota</b>				
Clay County	15,505	6,774	1,680	6.7
Ulen	164	70	34	0.0
Felton	69	9	15	0.0
Borup	30	7	14	0.0
Georgetown	48	0	7	N/A
Perley	44	4	5	0.0
Moorhead	8,808	5,496	970	5.8
<b>North Dakota</b>				
Cass County	34,294	29,605	4,039	4.3
Argusville	146	5	1	0.0
Gardner	27	2	6	N/A
Harwood	238	3	7	0.0
North River	21	2	1	0.0
Reiles Acres	146	0	1	N/A
Fargo	21,433	25,358	3,165	4.0
West Fargo	6,886	3,462	412	3.0
Prairie Rose	24	1	1	N/A
Mapleton	239	9	16	0.0
Casselton	651	223	52	11.2
Amenia	31	3	4	0.0
Barnes Co.	3,330	1,496	878	3.3
Sanborn	65	8	7	0.0
Valley City	1,714	1,272	321	3.1
Rogers	18	3	7	0.0
Stutsman Co.	5,957	2,974	931	5.7
Jamestown	3,869	2,698	416	5.6
Burleigh Co.	23,440	10,536	1,778	2.5
Bismarck	17,122	10,141	1,385	2.5
Lincoln	805	16	15	0.0
<sup>a</sup> Includes vacant units for rent, for sale, rented or sold but not occupied, for seasonal, recreational, or occasional use, for migrant workers, and other uses. Source: U.S. Census Bureau. 2010. Profile of General Population and Housing Characteristics, 2010 Demographic Profile Data. Available online at: <a href="https://factfinder.census.gov/faces/nav/jsf/pages/community_facts.xhtml">https://factfinder.census.gov/faces/nav/jsf/pages/community_facts.xhtml</a> .				
<sup>b</sup> U.S. Census Bureau. n.d. 2011-2015 American Community Survey 5-year Estimates. Available online at: <a href="https://www.census.gov/acs/www/data/data-tables-and-tools/data-profiles/2014/">https://www.census.gov/acs/www/data/data-tables-and-tools/data-profiles/2014/</a> . Accessed November 2016.				
N/A = Not available.				

In general, larger metropolitan areas such as Fargo and Bismarck, North Dakota and Moorhead, Minnesota have the highest number of vacant housing units. The remaining communities within the area of socioeconomic effect for the Project are smaller, rural communities with vacant housing units that range from 416 units in Jamestown, North Dakota to 1 unit each in Argusville, North River, Reiles Acres, and Prairie Rose, North Dakota.

Seasonal/recreational housing units are intended to be occupied temporarily and typically during certain seasons of the year. Cass County has the highest number of seasonal/recreational units at 644 and Stutsman County has the lowest at 241.

The city of Fargo has the highest number of seasonal/recreational housing units at 223 and 11 communities within the effects area do not have any seasonal/recreational housing units. Seasonal/recreational housing as well as rental properties are often used by construction employees.

In addition to vacant housing units, temporary accommodations such as hotels/motels, campgrounds and recreational vehicle (RV) parks, and other similar lodging options (e.g., cabins, resorts) are available in the Project area. WBI Energy reviewed publicly available data sources and conducted internet research to identify accommodations in the Project area (Expedia, Inc., 2016; Go Camping America, 2016; Google Earth, 2016). The total numbers of temporary living accommodations for each county in the Project area are as follows:

- Cass County, North Dakota – 62 hotels/motels, 9 campgrounds and RV parks, and 9 other lodging options;
- Clay County, Minnesota – 63 hotels/motels, and 2 campgrounds and RV parks;
- Barnes County, North Dakota – 5 hotels/motels, 4 campgrounds and RV parks, and 3 other lodging options;
- Stutsman County, North Dakota – 19 hotels/motels, 6 campgrounds and RV parks, and 1 other lodging option; and
- Burleigh County, North Dakota – 37 hotels/motels, 7 campgrounds and RV parks, and 3 other lodging options.

According to North Dakota Tourism Division's 2016 Annual Report, hotel occupancy rates statewide were about 50.3 percent in 2016, which is a decrease of 9.1 percent from 2015 occupancy rates (North Dakota Tourism, 2016). A review of Minnesota economic impact and lodging reports available on the Explore Minnesota website show similar statewide occupancy rates of about 50 percent (Explore Minnesota, 2017).

#### **5.1.4 Public Services and Infrastructure**

Public services and infrastructure in the Project area include law enforcement agencies, fire departments, medical facilities, and public schools. The public services that are available within 10 miles of the Project area are provided in table 5.1.4-1.

TABLE 5.1.4-1

## Existing Public Services Near the Project Area

State, County, Community	Police/Sheriff Departments <sup>a</sup>		Fire Departments <sup>a</sup>		Medical Facilities <sup>b</sup>		Public Schools <sup>c</sup>	
	Number	Distance to Project (miles)	Number	Distance to Project (miles)	Number	Distance to Project (miles)	Number	Student Enrollment (2014-2015 School Year)
<b>Minnesota</b>								
Clay County	2	N/A	6	N/A	11	N/A	6	6,029
Ulen	1	9.5	1	9.7	1	9.5	2	309
Felton	--	--	1	2.3	--	--	--	--
Borup	--	--	1	8.9	--	--	--	--
Georgetown	--	--	--	--	--	--	--	--
Perley	--	--	1	9.0	1	9.0	--	--
Moorhead	1	9.5	2	8.5	9	7.7	4	5,720
<b>North Dakota</b>								
Cass County	2	N/A	7	N/A	11	N/A	35	19,758
Argusville	--	--	1	3.1	--	--	--	--
Gardner	--	--	--	--	--	--	--	--
Harwood	--	--	1	1.8	--	--	1	132
North River	--	--	--	--	--	--	--	--
Reiles Acres	--	--	--	--	--	--	--	--
Fargo	1	8.8	1	7.4	7	8.2	21	11,483
West Fargo	1	5.0	2	5.0	3	5.4	10	7,247
Prairie Rose	--	--	--	--	--	--	--	--
Mapleton	--	--	--	--	--	--	1	80
Casselton	--	--	2	2.0	1	7.5	3	816
Amenia	--	--	--	--	--	--	--	--
Barnes Co.	2	N/A	4	N/A	3	N/A	4	1,098
Sanborn	--	--	2	0.4	--	--	--	--
Valley City	2	10.0	2	10.0	3	10.0	4	1,098
Rogers	--	--	--	--	--	--	--	--
Stutsman Co.	2	N/A	2	N/A	3	N/A	7	2,170
Jamestown	2	2.3	2	2.3	3	2.2	7	2,170
Burleigh Co.	3	N/A	3	N/A	6	N/A	27	12,082
Bismarck	2	8.4	3	8.5	6	2.1	26	11,583
Lincoln	1	5.7	--	--	--	--	1	499

<sup>a</sup> Source: North Dakota Department of Emergency Services. 2016. Geospatial Data. Available online at: <http://des-ndgov.maps.arcgis.com/home/index.html>. Accessed December 2016.

<sup>b</sup> Source: Hospital Data and Profiles. 2015. North Dakota and Minnesota. Available online at: <http://www.hospital-data.com/> Accessed January 2017.

<sup>c</sup> Source: National Center for Education Statistics. 2015. Common Core Data) Public School Data 2014-2015 School Year. Available online at: <https://nces.ed.gov/ccd/schoolsearch/> Accessed December 2016.

<sup>d</sup> Information presented for each county represents a tally of available public services in the communities that are within 10 miles of the Project area in that county (i.e., the area of socioeconomic effect).

N/A = Not applicable

### 5.1.4.1 Public Safety

All counties and most communities located in the Project area are served by at least one sheriff's office and/or police department and one fire department. The smaller rural communities that do not have their own police or fire departments have adequate access to and are served by public safety departments in larger adjacent communities. Table 5.1.4-1 provides the number of law enforcement offices and fire departments that are available in the communities that are located within 10 miles of the Project area; the distance to each law enforcement office and fire department is also provided.

### 5.1.4.2 Health Care

The counties and communities in the Project area have access to at least one hospital or medical facility within 10 to 15 miles of the Project. The smaller rural communities within the Project area are served by larger regional hospitals, medical centers, and health care clinics in nearby communities such as Moorhead, Fargo, Valley City, Jamestown, and Bismarck. Table 5.1.4-1 lists the medical facilities that are located within 10 miles of the Project; the distance to each medical facility is also provided.

### 5.1.4.3 Education

Table 5.1.4-1 provides the number of public schools located within 10 miles of the Project area and includes the total enrollment for each school during the 2014 to 2015 school year. In general, students from the smaller rural communities in the Project area attend public schools in nearby larger communities such as Moorhead, Fargo, Valley City, Jamestown, and Bismarck.

### 5.1.4.4 Transportation

The highway system and the local, county, and township roads in the vicinity of the Project area are well developed and easily accessible along the pipeline route and from the aboveground facilities. The main arterial roads that may be used to access the pipeline route include Interstate 94, Interstate 29, U.S. Highway 10, and U.S. Highway 75. The approximate miles of arterial roads near the Project area and within each county are provided in table 5.1.4-2.

<b>Existing Roads in the Project Area</b>		
County, State	Major Roadways	Total Miles <sup>a</sup>
Clay County, Minnesota	Interstate 94	1.1
	U.S. Highway 75	22.2
	U.S. Highway 10	19.1
Cass County, North Dakota	Interstate Highway 94	10.7
	Interstate Highway 29/U.S. Highway 81	26.1
Barnes County, North Dakota	Interstate Highway 94/U.S. Highway 10	19.7
Stutsman County, North Dakota	Interstate Highway 94	16.5
	U.S. Highway 281	18.1
Burleigh County, North Dakota	Interstate Highway 94	20.3
	U.S. Highway 83/14	4.8

<sup>a</sup> Mileage of roadway within a 10-mile radius of Project facilities.  
Source: Google Earth. 2016. Google Earth Pro.

The roads closest to the proposed route and facilities are county and township roads that are located in rural areas and not heavily used.

## **5.2 CONSTRUCTION AND OPERATION IMPACTS**

The Project will provide an additional source of natural gas to fuel growth in eastern North Dakota and western Minnesota, and also enhance system reliability for existing and new customers. The Project is designed to optimize the placement of facilities to meet customer needs. This Project achieves expansion efficiencies and minimizes environmental impacts in comparison to other options.

WBI Energy is making a major long-term investment in the region through construction of the Project, which will have a positive impact on employment, income, and tax revenues in the Project area and nearby communities. Additional tax revenues in the form of ad valorem property taxes will also result from the operation of Project facilities. In addition, adequate public services are available in all counties and communities within 10 miles of the Project.

### **5.2.1 Population**

The Project, as proposed, would avoid major population centers and incorporated communities in both states. The route primarily crosses rural areas with low population densities that are dominated by agricultural lands. Construction and operation of the Project are not anticipated to result in significant changes to the existing population. WBI Energy estimates that approximately 90 temporary construction workers will be required over the 5-month (120 working days) construction period for the pipeline; approximately 12 of these workers may be hired locally. Construction of the Mapleton Compressor Station will require approximately 25 construction workers over the same 5-month period; about 10 of these construction workers will be hired locally. Construction of the remaining aboveground facilities will require 15 construction workers over approximately a 20-day period, of which about 5 may be hired locally.

Permanent staff will not be required for operation of the pipeline and aboveground facilities, as WBI Energy will utilize existing employees who already live in the area, as needed. In general, WBI Energy plans to operate the compressor station and other aboveground facilities remotely.

Population impacts from construction and operation of the Project will be related to the temporary influx of non-local construction workers to the Project area for a period of approximately 3 months. Any increases in population levels are expected to be temporary and minor. Non-local construction workers would likely require temporary housing in the Project area but this would be limited to the relatively short period of construction and is not expected to significantly impact the local population.

### **5.2.2 Employment**

As mentioned in section 5.2.1, a total of approximately 130 temporary construction workers will be required during construction of the Project. These workers consist of pipeline construction specialists, supervisory personnel, and craft and environmental inspectors who are likely non-local residents that will temporarily relocate to the Project area for the period of construction. However, some of the skills and jobs required for the Project may be made available to the surrounding communities, which could result in a minor positive impact on unemployment in the counties in the Project area. The increase in employment and influx of non-local construction workers typically results in increased spending in local communities near the Project area that, in turn, results in increased tax revenues collected in these communities.

### **5.2.3 Housing**

Non-local construction workers for the Project may temporarily reside in rental units, motels or hotels, RV parks, and other temporary housing units near the Project area. The influx of 130 temporary construction workers is not anticipated to significantly affect the availability of housing in the area due to the existing

number of available vacant units, motels/hotels, and RV parks and campgrounds in each county and in larger metropolitan areas such as Moorhead, Fargo, Jamestown, and Bismarck (see table 5.1.3-1). Long-term changes in the availability of housing units in the Project area are not anticipated because no permanent workers will be required for operation of the Project.

#### 5.2.4 Public Services and Infrastructure

The number of workers required to construct the Project is relatively low and therefore would not result in significant impacts on access to local community healthcare facilities or social services. The number of existing local law enforcement agencies and fire departments in the Project area is sufficient to provide emergency services to the surrounding communities. The anticipated demand for police, fire, and medical services in case of an emergency is not expected to exceed existing capacities. Because the communities shown in table 5.1.4-1 are within 10 miles of the Project area, the time it would take for emergency responders to access the Project area is expected to be timely (approximately 10 minutes or less) and adequate should emergency response be required during construction or operation of the Project. Additional information regarding how WBI Energy will coordinate with public safety offices in the Project area is provided in section 11.6.5 in Resource Report 11.

Non-local construction workers could temporarily relocate to the Project area with their families; however, based on the number of public schools located near the Project area in each county, and the relatively small number of construction workers required for the Project, impacts on public schools are anticipated to be temporary and minor and will not limit access to public schools for local populations.

Existing local county and township roads will be used to transport construction equipment to the Project area. Estimates for the number of vehicles that WBI Energy anticipates will be required during construction are provided in table 5.2.4-1. Vehicles will include stringing trucks, welding rigs, water trucks, fuel trucks, mechanic trucks, front end loaders, hydrostatic equipment trucks, backhoes, construction personnel and environmental inspector vehicles. WBI Energy anticipates that some workers will carpool to the construction area, thus reducing passenger vehicle load on local roads. During construction, vehicles will be distributed across the Project according to the specific phase of construction and vehicles involved in construction are anticipated to travel between the laydown yards and the construction workspace approximately one to two times per day. While the total duration of construction along the pipeline route is anticipated to last approximately 120 days over a period of 5 months, construction in any distinct location is anticipated to last approximately 3 weeks and construction activities will be scheduled to take advantage of daylight hours. As such, construction crews will typically avoid peak commuting periods by traveling to the worksite early in the morning and from the worksite later in the evening. Certain construction-related activities such as hydrostatic testing, HDD, and tie-ins, amongst others, may occur at unspecified times and outside the normal work day. WBI Energy will attempt to schedule these activities in such a way (e.g., outside of peak traffic hours) that impacts on local commuter traffic will be minimized.

Estimated Vehicle Traffic During Construction			
Project Facility	Construction Vehicles	Delivery Vehicles	Estimated Duration of Construction
Pipeline	25	10	120 days over a 5-month period
Mapleton Compressor Station	34	11	120 days over a 5-month period
Viking Interconnect	20	8	20 days
Sanborn Regulator Station	25	11	20 days
Jamestown Town Border Station	37	8	20 days
Apple Valley Town Border Station	27	2	20 days
<b>Total</b>	<b>168</b>	<b>50</b>	

The Project may create a minor temporary increase in traffic on county and township roads during active construction but traffic delays are not anticipated. Construction of the pipeline across public roads will be completed via horizontal directional drilling or guided bore; no impacts to local traffic are anticipated. Should a road closure be necessary, WBI Energy will work with local law enforcement and county agencies to ensure that impacts to local traffic are minimized. Construction vehicles and equipment will comply with all federal, state, and county regulations as well as local load weight restrictions.

### 5.2.5 Economy and Tax Revenue

Construction personnel hired directly or through a third party will have a positive impact on local tax revenues through payroll spending on housing, food, utilities, entertainment, and luxury items. The Project construction payroll is estimated to total approximately \$26,993,000 over the entire Project, which may help stimulate regional employment as new workers are hired to meet construction demands. Due to no new permanent employees for operation of the Project facilities, there will be no changes to the long-term contribution of payroll to the local economies.

The cost of construction materials and supplies is estimated to be approximately \$17,296,000. Materials such as concrete, stone, erosion control materials, mulch, seed, and fencing are all items that can be purchased from local vendors. These purchases will result in short-term beneficial impacts on local businesses by generating additional revenues and contributing to the tax base. Based on a current state sales tax rate of 6.87 percent for Minnesota (Clay County, Minnesota, 2016) and 5.0 percent for North Dakota, combined state sales tax revenues for material and supplies are estimated to be approximately \$927,800. In addition, Clay County in Minnesota and Cass and Burleigh Counties in North Dakota levy a 0.5 percent local sales tax on materials and supplies. It is estimated that approximately \$52,200 of additional local sales tax revenue could be generated, with the majority of the estimated total shared between Clay County and Cass County. Barnes and Stutsman counties do not levy additional local taxes beyond the state tax rate (Cass County, North Dakota, 2016).

In addition, *ad valorem*, or property taxes, result in long-term benefits to local and regional economies. *Ad valorem* tax revenues will depend on the length or footprint of Project facilities in each county and will be paid over the life of the Project. Based on estimated property tax rates, total *ad valorem* tax revenue associated with the Project is estimated to be \$547,500.

Construction of the Project will result in positive short-term benefits through increased state and local sales tax revenues associated with increased payroll taxes and the purchase of construction materials as well as goods and services purchased from local vendors and businesses by the construction workforce. Positive indirect impacts include increased sales for businesses that specifically service construction activities. WBI Energy will also be required to pay county environmental and construction permit fees and pay property taxes on purchased easements during the development phase of the Project, which will generate a small amount of revenue for the counties. Income and sales tax revenues generated from construction of the Project will most likely benefit education and school programs, health care programs, and public transportation and infrastructure projects.

In a letter dated March 7, 2017, the Minnesota Pollution Control Agency (MPCA) requested information regarding the potential economic impacts of an accidental release or other incident during operation of the Project. As noted in section 11.2 of Resource Report 11, WBI Energy has a recorded total of 12 incidents on its pipeline system during the ten-year period from 2006 and 2016 (Department of Transportation Pipeline and Hazardous Materials Safety Administration [DOT PHMSA], 2016). To address the MPCA's question, WBI Energy reviewed the total costs for each of these incidents, and noted that the costs vary widely from \$3,000 to \$500,000 and are dependent on the magnitude of the incident. Most of the recorded incidents during this 10-year period were the result of excavation damage caused by an independent third-



party contractor, followed by damage by natural forces such as temperature. Resource Report 11, Safety, outlines the procedures and best management practices that WBI Energy will employ to avoid and/or mitigate incidents during operation of the Project. In general, if a pipeline incident occurs, costs related to emergency response are paid for through the local tax base and are not the responsibility of the pipeline company. If an incident were to occur on WBI Energy’s system, no lasting economic impact is anticipated because of the remote location of the facilities.

### **5.2.6 Displacement of Residences or Businesses**

Residences and businesses will not be displaced due to the Project.

### **5.2.7 Property Values**

The effect that the proposed pipeline and aboveground facilities may have on a particular property’s value is a damage-related issue based on multiple factors and will be negotiated between the landowner and WBI Energy during the easement acquisition process, which provides fair compensation to the landowner. The pipeline route and aboveground facilities are located in rural agricultural areas with very few existing homes, and negative impacts on property values from construction and operation are not anticipated.

## **5.3 ENVIRONMENTAL JUSTICE**

Executive Order (EO) 12898, Federal Actions to Address Environmental Justice in Minority and Low-Income Populations, requires each federal agency to make environmental justice part of its mission by identifying and addressing disproportionately high adverse human health or environmental effects of its activities on minority and/or low-income populations.

Minority racial and ethnic minority populations include: Native American or Alaska Native; Asian; African American/Black; Native Hawaiian or Other Pacific Islander; two or more races and other races; and the Hispanic or Latino ethnicity (U.S. Census Bureau, 2010). Low-income is defined as a median household income at or below the Department of Health and Human Services’ poverty guidelines. A minority population is considered to exist when the total racial minorities are more than 50 percent of the non-minority, or white, comparative group. A low-income population is considered to exist when the percentage of all persons living below the poverty level in a given county is more than the percentage for the state where the county is located or when the median household income for the county is lower than the median household income for the state where the county is located (U.S. Census Bureau, 2016b).

### **5.3.1 Race and Ethnicity**

Race and ethnicity data for the states, counties, and communities in the Project area are provided in table 5.3.1-1. Based on review of this data, there are no minority populations exceeding 50 percent of the white population groups in any counties or communities in the Project area. Of the counties in the Project area, Cass County, North Dakota has the largest population of minorities, followed by Clay County, Minnesota; Stutsman County, North Dakota has the lowest population of minorities. On average, the number of minorities in the counties affected by the Project are lower than the Minnesota and North Dakota state averages and minorities represent well below 50 percent of the total population. Minority populations in the communities within 10 miles of the Project generally are consistent with county levels. For these reasons, impacts on minority populations are not anticipated to be disproportionately affected by construction and operation of the Project.

Country, State, County, Community	U.S. Census Racial and Ethnic Groups <sup>b</sup>							Total Minorities
	White	Black or African American	American Indian/Alaska Native	Asian	Native Hawaiian/Pacific Islander	Two or more Races	Hispanic or Latino	
<b>United States</b>	77.1	13.3	0.9	5.6	0.2	2.6	17.6	40.2
<b>Minnesota</b>	85.4	6.0	1.3	4.9	0.1	2.4	5.2	19.9
Clay County	92.8	1.9	1.6	1.4	0.1	2.2	4.2	11.4
Ulen	96.0	0.0	6.0	0.0	0.0	1.0	0	7.0
Felton	98.9	0.0	0.0	1.1	0.0	0.0	2.8	3.9
Borup	97.3	0.0	1.8	0.0	0.0	0.9	5.5	8.2
Georgetown	95.5	0.0	0.6	0.0	0.0	3.8	0.0	4.4
Perley	93.5	0.0	1.1	0.0	0.0	2.2	7.6	10.9
Moorhead	90.7	2.0	1.5	2.0	0.0	2.6	4.1	12.2
<b>North Dakota</b>	88.6	2.4	5.5	1.4	0.1	2.1	3.5	15.0
Cass County	89.6	4.1	1.4	2.8	0.1	2.0	2.6	13.0
Argusville	97.9	0.0	0.2	0.0	0.0	0.4	0.0	0.6
Gardner	100.0	0.0	0.0	0.0	0.0	0.0	2.7	2.7
Harwood	98.6	0.1	0.8	0.0	0.0	0.4	0.1	1.4
North River	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Reiles Acres	98.4	0.2	0.2	0.8	0.0	0.2	0.8	2.2
Fargo	90.2	2.7	1.4	3.0	0.0	2.1	2.2	11.4
West Fargo	93.5	2.0	1.0	1.4	0.0	1.8	1.8	8.0
Prairie Rose	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Mapleton	94.9	3.4	0.4	0.0	0.0	0.4	3.5	7.7
Casselton	97.3	0.1	0.9	0.0	0.0	1.2	2.4	4.6
Amenia	92.6	0.0	3.2	0.0	0.0	4.3	0.0	7.5
Barnes County	93.8	1.7	1.2	1.4	0.1	1.8	1.8	8.0
Sanborn	99.0	0.0	0.0	0.0	0.0	1.0	0.0	1.0
Valley City	95.2	1.2	0.7	0.8	0.0	1.7	1.5	5.9
Rogers	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Stutsman County	94.5	1.3	1.7	0.8	0.1	1.5	2.3	7.7
Jamestown	94.6	0.8	1.8	0.6	0.1	1.4	2.1	6.8
Burleigh County	91.8	1.5	4.2	1.4	0.1	1.7	2.1	11.0
Bismarck	92.4	0.7	4.5	0.6	0.0	1.5	1.3	8.6
Lincoln	94.6	0.9	2.0	0.1	0.0	2.2	0.5	5.7

<sup>a</sup> U.S. Census Bureau. 2010. Profile of General Population and Housing Characteristics, 2010 Demographic Profile Data. Available online at: [https://factfinder.census.gov/faces/nav/jsf/pages/community\\_facts.xhtml](https://factfinder.census.gov/faces/nav/jsf/pages/community_facts.xhtml).

<sup>b</sup> Race documentation is based on self-identification on census forms. Due to inconsistencies and reporting constraints, the columns may not total 100 percent.

### 5.3.2 Poverty

The percentage of individuals and families living below the poverty level in each state, county, and community within 10 miles of the Project is provided in table 5.3.1-2. Poverty levels for families and individuals in each county in the Project area are below the national average. Stutsman County has the highest percentage of families living below the poverty level (7.9 percent) and Barnes County has the lowest (4.7 percent). The community of Felton has the highest percent of families living below the poverty level at 21.6 percent, while the communities of Georgetown, Perley, Gardner, Harwood, North River, Prairie

Rose, Amenia, and Rogers have 0 percent. Clay County, Minnesota and Cass County, North Dakota have the highest numbers of individuals living below the poverty level with 12.7 and 12.1 percent, respectively, followed by Stutsman, Burleigh, and Barnes counties. Of the communities within 10 miles of the Project, Felton has the highest number of individuals living below the poverty level with 19.3 percent, while the communities of Georgetown, Perley, North River, Prairie Rose, and Rogers have 0 percent. Families and individuals living below the poverty level do not represent a disproportionately large percentage of the overall population in the Project area and they would not be more adversely affected compared to other populations. Construction and operation of the Project would not disproportionately impact low income populations in the Project area.

Country, State, County	Families Below Poverty Level (percent)	Persons Below Poverty Level (percent)
<b>United States</b>	11.3	15.5
<b>Minnesota</b>	7.3	11.3
Clay County	7.3	12.7
Ulen	5.0	14.0
Felton	21.6	19.3
Borup	8.7	15.7
Georgetown	0.0	0.0
Perley	0.0	0.0
Moorhead	8.5	15.7
<b>North Dakota</b>	7.2	11.5
Cass County	6.5	12.1
Argusville	0.8	1.1
Gardner	0.0	6.8
Harwood	0.0	0.6
North River	0.0	0.0
Reiles Acres	0.8	0.6
Fargo	7.9	14.9
West Fargo	5.2	7.1
Prairie Rose	0.0	0.0
Mapleton	4.2	7.2
Casselton	6.5	5.6
Amenia	0.0	2.4
Barnes County	4.7	8.0
Sanborn	2.3	4.0
Valley City	5.5	8.5
Rogers	0.0	0.0
Stutsman County	7.9	10.9
Jamestown	9.7	12.8
Burleigh County	5.0	8.2
Bismarck	6.0	9.6
Lincoln	1.1	1.8

Source: U.S. Census Bureau. n.d. 2011-2015 American Community Survey 5-year Estimates. Available online at: <https://www.census.gov/acs/www/data/data-tables-and-tools/data-profiles/2014/>. Accessed November 2016.

WBI Energy will construct and operate the Project consistent with the goals described in EO 12898 and no environmental justice issues are expected to result from the Project. Project construction and operation will have positive socioeconomic effects on the general local population by generating new jobs for

construction, promoting economic activity, and providing tax revenue. The Project will not disproportionately affect racial, ethnic, or low income population groups.

#### 5.4 CUMULATIVE IMPACTS

Cumulative impacts represent the incremental effects of a proposed Project when added to other past, present, or future projects over time. Projects considered for cumulative assessment within the Project area are provided in table 1.11-1 of Resource Report 1. Of the projects identified in table 1.11-1, the Fargo-Moorhead Area Diversion Project (FMADP), the Viking Meter Station, and the Otter Tail Power Line Project are expected to occur during a similar timeframe as the Project.

The FMADP includes the construction of a flood diversion channel along the Red River of the North and along the western portion of Fargo, North Dakota. The Viking Meter Station includes construction of measurement and connection facilities directly adjacent to the Viking Interconnect in Clay County, Minnesota. The Otter Tail Power Line Project includes construction of a 1- to 2-megawatt powerline to the Mapleton Compressor Station at the western terminus of the Project. All three of these projects are located in the vicinity of the Project and construction is anticipated to occur within a similar timeframe, which may lead to cumulative socioeconomic effects. The Project, in addition to these projects, may lead to a temporary increase in employment and benefits to the local economy through sales tax revenues generated during construction and *ad valorem* taxes collected by Cass County, North Dakota and Clay County, Minnesota, which would benefit county programs as noted in section 5.2.5. If non-local construction workers are hired all four projects, the influx of these workers to the area could have cumulative impacts on the availability of temporary housing near the Project area. However, as stated in section 5.2.3, there exists an adequate amount of temporary housing in nearby metropolitan areas such as Moorhead, Fargo, Jamestown, and Bismarck; therefore, the cumulative impact on temporary housing is not expected to exceed demand. In addition, cumulative impacts on the availability of public services in the Project area are not anticipated due to the overlapping timeframes of the Project and the FMADP, Viking Meter Station, and Otter Tail Power Line Project.

## 5.5 REFERENCES

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