



Spire STL Pipeline Project

Draft Resource Report 5
Socioeconomics

FERC Docket No. PF16-9-000

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Public



RESOURCE REPORT 5 - SOCIOECONOMICS	
SUMMARY OF FILING INFORMATION	
Information	Found in
1. For major aboveground facilities and major pipeline projects that require an environmental impact statement, describe existing socioeconomic conditions within the project area – Title 18 Code of Federal Regulations (CFR) part (§) 380.12 (g)(1)	Not Applicable
2. For major aboveground facilities, quantify impact on employment, housing, local government services, local tax revenues, transportation, and other relevant factors within the project area – 18 CFR § 380.12 (g)(2-6)	Not Applicable
INFORMATION RECOMMENDED OR OFTEN MISSING	
1. Evaluate the impact of any substantial immigration of people on governmental facilities and services and describe plans to reduce the impact on local infrastructure.	Not Applicable
2. Describe on-site workforce 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 and permanently within the impact area.	See Resource Report 1 for Description of Estimated Workforce
3. Estimate total worker payroll and material purchases during construction and operation.	Not Applicable
4. Estimate project-related ad valorem and local tax revenues.	Not Applicable
5. Determine whether existing housing within the project area is sufficient to meet the needs of the additional population.	Not Applicable
6. 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.	Not Applicable



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INFORMATION RECOMMENDED OR OFTEN MISSING	
Information	Found in
7. Describe impacts on local traffic due to construction- and operation-related traffic and worker commuting. Where applicable (e.g., LNG import/export facilities), address impacts on marine traffic.	Section 5.1.1
8. Evaluate the effects of the project on minority and low income populations in consideration of Executive Order 12898.	Section 5.2
9. 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.	Not Applicable



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Acronyms and Abbreviations

CFR	Code of Federal Regulations
EJSCREEN	Environmental Justice Screening and Mapping Tool
FERC	Federal Energy Regulatory Commission
NEPA	National Environmental Policy Act
Project	Spire STL Pipeline Project
Spire	Spire STL Pipeline LLC
USEPA	United States Environmental Protection Agency



Socioeconomics

Spire STL Pipeline LLC's ("Spire's") proposed facilities for the Spire STL Pipeline Project ("Project") are not considered a major aboveground facility as defined within 18 Code of Federal Regulations Part 380.12(g) or a major pipeline project. The Project is not anticipated to have a major impact on permanent employment, housing, local government services, local tax revenues, transportation, or other related socioeconomic conditions as impacts will be limited and temporary, and those topics are therefore not addressed herein. An estimate of workforce requirements for Project construction and operation, including the number of personnel to be hired to operate the proposed Project, is included in Resource Report 1, General Project Description.

5.1 Construction and Operation

The Project is expected to positively impact the local economy, specifically related but not limited to the leisure and hospitality sector, which would cater to the influx of temporary workers. However, these impacts are expected to be temporary in nature and predominantly limited to the timeframe when construction is ongoing. The Project is not expected to significantly contribute to long-term employment in the Project area.

Spire has no means of definitively predicting from where the prospective contractor's and their sub-contractor's labor pool would originate. Local workforces support other natural gas facilities, and depending on the prospective contractor, a portion of the prospective workforce may already reside either permanently or temporarily in the vicinity of the Project. Should the prospective contractor have a non-local workforce, there is no expectation that the Project would significantly impact the availability of temporary or permanent accommodations compared to current conditions given the proximity to a metropolitan area.

During the proposed Project construction, it is assumed that purchases would be made from the local economy for vehicle fuel, and a wide variety of construction materials and other miscellaneous expenses. In addition, non-local workers will spend part of their income on local fuel, lodging and food. At this stage of project development and planning, Spire is not able to estimate these expenses or, in the case of miscellaneous construction-related expenses, the point(s) of purchase. All purchases are taxable at the general sales tax rate in each state and county. The general sales tax rate for Illinois is 6.25 percent and for Missouri is 4.225 percent.

5.1.1 Road Crossing Procedures

The proposed 24-inch pipeline portion of the Project predominantly crosses rural areas. It is proposed to cross several larger, well-traveled roads including SR-106, SR-108, SR-16, SR-3, and SR-100 in Illinois, and SR-94 in Missouri. The Line 880 modifications are primarily located within suburban residential areas. Most of the modifications will not impact major roadways. One proposed reroute of the existing pipeline will cross SR-367 in Missouri. Other less-traveled roads in the Project area are also paved and marked.

Short-term impacts on roads and highways are anticipated during construction of the proposed Project. Generally, all paved roads will be crossed by conventional bore. Boring typically requires additional temporary workspace



areas on both sides of the crossing for excavating bore pits while the road remains in operation. Therefore, little or no disruption of traffic is expected at paved road crossings.

Unpaved rural roads may be open-cut where permitted by local authorities or landowners. In addition, the modifications to Line 880 require some workspace within road rights-of-way due to the space limitations in dense residential areas. These areas of construction may require temporary closure of a road and establishment of detours. If no reasonable detour is feasible, at least one lane of a road would be kept open to traffic, except for brief periods when it is essential to close the road to install the pipeline. Spire would avoid road closings during peak traffic hours. Open-cut crossings of roads would typically be completed in one to two days. Work at each Line 880 Modification site affecting a road would typically be completed in four to six days. Spire will attempt to complete construction across high-traffic roads within 24 hours.

Roads affected by open-cutting and the Line 880 workspaces will be returned to pre-construction conditions. If an open-cut road requires extensive construction time, provisions will be made for temporary detours or other measures to allow safe traffic flow during construction. Additionally, where required by the landowner, a temporary bridge or bypass could be established on small roads or driveways. Prior to closing roads, a road closure schedule would be arranged with the appropriate transportation authority, if applicable, and local businesses that could be affected by the closures. Law enforcement agencies also would be notified.

Where the right-of-way or right-of-way access locations intersect public hard-surfaced roads, a crushed stone pad will be installed as a construction entrance to control mud and dirt tracking onto the highway. If excess soil or mud is tracked onto roadways, it would be removed as soon as practical. To prevent sediment from construction being washed onto roads during a rain event, sediment barriers would be installed adjacent to all paved roads where the potential for sediment transport exists.

To maintain safe conditions, Spire would direct its construction contractors to comply with vehicle weight and width restrictions, and to remove excess soil that is left on the road surface by the crossing of construction equipment. In addition, when it is necessary for equipment to move across paved roads, mats or other appropriate measures would be used to prevent damage to the road surface. Contractors would employ the appropriate traffic control measures in accordance with all permits and local regulations at high-traffic roadway crossings and at any other crossings where deemed necessary either due to other conditions and/or by local authorities. At all road crossings, flaggers would direct traffic and appropriate construction notification signage would be displayed. Detours or obstructions in traffic flow due to large vehicles or construction of pipeline road crossings may require short-term assistance from local police in limited instances. Project-related demands on local police workloads are not expected to be significant.

The movement of construction equipment and materials from contractor yards to the construction work area would result in additional short-term impacts on the transportation network. Several construction-related trips would be made each day (to and from the job site) on each spread. This level of traffic would remain fairly constant throughout the construction period, and would typically occur at early morning and evening hours. Spire will hire a third-party firm to coordinate contractor movement of oversized loads on a scheduled basis as well as to notify



and coordinate with local fire, police, emergency management services, schools and other civic departments as applicable. Spire would comply with state and federal regulations.

5.2 Environmental Justice

Executive Order 12898 requires Federal agencies to identify the environmental effects, including health, social and economic effects, of a project on minority and low-income communities or Native American programs, and to address, as appropriate, disproportionately high and adverse human health and environmental effects.

Spire utilized data from the US Census and United States Environmental Protection Agency (“USEPA”) Environmental Justice Screening and Mapping Tool (“EJSCREEN”) to identify demographics in the Project area. For the purposes of this analysis, Spire reviewed the affected environment in EJSCREEN to identify potential Environmental Justice concerns.

Spire established the affected environment in accordance with guidance from the Council on Environmental Quality’s *Environmental Justice Guidance Under the National Environmental Policy Act* (“NEPA”) (1997), and the Federal Interagency Working Group’s *Promising Practices for EJ Methodologies in NEPA Reviews* (2016). Spire considered the direct and indirect impacts for each resource topic of this Environmental Report to establish the affected environment described below:

- The primary direct and indirect impacts from the 24-inch pipeline include land use change and impacts to streams and wetlands. Stream and wetland impacts are anticipated to have fairly localized temporary impacts, with permanent impacts mitigated where necessary. Therefore, consistent with the geographic scope utilized for land use in the cumulative impacts analysis included in Resource Report 1, a one-mile radius buffer was established as the Affected Environment for the 24-inch pipeline. This Affected Environment is of sufficient size to include the Area of Potential Effect for impacts to cultural resources as well.
- The primary direct and indirect impacts from Line 880 include temporary construction impacts to noise quality in close proximity to the existing pipeline, which is located primarily in a residential area. As Line 880 is an existing pipeline, land use and other impacts are anticipated to be highly localized. Therefore, consistent with the geographic scope utilized for temporary noise and air quality impacts in the cumulative analysis in Resource Report 1, a 0.25-mile radius buffer was established as the Affected Environment for Line 880. This Affected Environment is of sufficient size to include the Area of Potential Effect for impacts to cultural resources as well.
- One proposed contractor yard for the Project is not located within the aforementioned Affected Environments. As this is a new contractor yard, Spire has remained consistent with the analysis for the 24-inch pipeline and has established a one-mile radius buffer of the contractor yard, located in Madison County, Illinois, as the Affected Environment.



5.2.1 Minority Populations

A summary of the race and ethnicity for the Affected Environment by County is presented in Table 5.2-1 (USEPA, 2015).

Table 5.2-1. Race and Ethnicity in the Project Area

Facility/County, State	White (%)	Black or African American (%)	American Indian (%)	Asian (%)	Pacific Islander (%)	Some Other Race (%)	Population Reporting Two or More Races (%)	Hispanic or Latino (%)
24-inch Pipeline								
Scott County, Illinois	96	0	0	1	0	0	4	0
Greene County, Illinois	97	1	0	0	0	0	1	1
Jersey County, Illinois	98	0	0	1	0	0	1	1
St. Charles County, Missouri	94	4	1	0	0	0	0	1
St. Louis County, Missouri	45	52	0	0	0	1	2	0
Line 880								
St. Louis County, Missouri	24	69	0	1	0	0	5	1
Contractor Yard								
Madison County, Illinois	78	18	1	0	0	0	3	1

Note:

- ¹ Data are sourced from the US Census Bureau American Community Survey, vintage 2010-2014, as presented in EJSCEEN for the Affected Environment within each county. Percentages are estimates and may not equal 100 percent due to rounding.

Spire utilized EJSCEEN to identify minority populations within the Affected Environment. Percent minority populations for the Affected Environment in comparison to the state and national averages are included in Table 5.2-2 (USEPA, 2015). The Fifty Percent and Meaningfully Greater analyses were utilized to evaluate the presence of minority populations. Under the Fifty Percent analysis, a minority population is identified if the percentage of minority individuals within the geographic unit of analysis meets or exceeds 50 percent. Under the Meaningfully Greater analysis, a minority population is identified if the percentage of minority individuals within the geographic unit of analysis is meaningfully greater than the percentage of minorities within a reference community, such as the county, state or nation. For this analysis, the reference populations included the state and national averages.



Table 5.2-2. Minority Populations in the Affected Environment

Facility/County, State	Value for Affected Environment (%)	State Average (%)	United States Average (%)	Minority Population (Y/N)
24-Inch Pipeline				
Scott County, Illinois	4	37	37	N
Greene County, Illinois	3	37	37	N
Jersey County, Illinois	2	37	37	N
St. Charles County, Missouri	6	20	37	N
St. Louis County, Missouri	55	20	37	Y
Line 880				
St. Louis County, Missouri	76	20	37	Y
Contractor Yard				
Madison County, Illinois	22	37	37	N

Minority populations were identified in the Affected Environments of St. Louis County, Missouri for both the 24-inch pipeline and Line 880. The vast majority of the Project facilities in St. Louis County are related to upgrades to portions of the existing pipeline Line 880. Additionally, Line 880 is existing and periodic maintenance activities occur presently; therefore activities related to the Project will not substantially change these activities. The minor aboveground facilities constructed on Line 880 are located at or adjacent to existing facilities. Only 0.6-mile of new 24-inch pipeline will be constructed in this county, thus potential impacts related to change in land use will be negligible. Property will be restored to pre-existing conditions after construction, and landowners will be compensated for any potential property damage. Communications with property owners impacted by the Project construction will include clear and simple presentation of the purpose and need for the Project and accurately projected construction schedule and anticipated property impacts.

5.2.2 Low Income Populations

A summary of the population below the poverty level for the impacted counties, along with state and national reference populations, is presented in Table 5.2-3 (U.S. Census Bureau, 2014). Based on this preliminary analysis, Spire narrowed the scope to focus on the Affected Environment to identify low income populations.



Table 5.2-3. Poverty Levels in Counties Crossed by the Project

	Scott, Illinois (%)	Greene, Illinois (%)	Jersey, Illinois (%)	St. Charles, Missouri (%)	St. Louis, Missouri (%)	Illinois (%)	Missouri (%)	United States (%)
All Ages Below Poverty Level	12	16.2	11.6	6.8	9.6	14.3	15.5	15.5

Spire utilized EJSCREEN to obtain demographic indicators for low income populations (USEPA, 2015). For the purposes of this analysis, low income populations were identified using data from EJSCREEN, as presented in Table 5.2-4. Under the Threshold Criteria analysis, a low income population is identified where the value for the affected environment is equal to or greater than that of the reference population. For this analysis, the reference populations included the state and national averages.

Table 5.2-4. Low Income Populations in the Affected Environment

Facility/County, State	Value for Affected Environment (%)	State Average (%)	United States Average (%)	Low Income Population (Y/N)
24-Inch Pipeline				
Scott County, Illinois	40	32	35	Y
Greene County, Illinois	35	32	35	Y
Jersey County, Illinois	22	32	35	N
St. Charles County, Missouri	31	35	35	N
St. Louis County, Missouri	21	35	35	N
Line 880				
St. Louis County, Missouri	48	35	35	Y
Contractor Yard				
Madison County, Illinois	44	32	35	Y

Low income populations affected by the 24-inch pipeline were identified in Scott and Greene Counties, Illinois. Low income populations affected by Line 880 were identified in St. Louis County, Missouri. In addition, the contractor yard located in Madison County, Illinois, is located within an area with a low income population.

Most impacts will be temporary during construction of the Project. Permanent negative effects on these populations would be avoided because there will be no displacements of businesses or residences. The majority



of the area impacted by the 24-inch pipeline is rural, with low population density. Any economic losses from potential temporary or permanent reductions in agricultural/pasture land productivity or other potential property damage will be compensated accordingly. Best management practices used for construction in streams and wetlands will avoid potential negative impacts to persons who may rely on hunting and fishing for a portion of their subsistence.

5.2.3 Linguistically Isolated Populations

Spire utilized the EJSCREEN tool to identify linguistically isolated populations within the affected environment (USEPA, 2015). Linguistically isolated populations are rare, but are present within the affected environment for the 24-inch pipeline in Scott County, Illinois, and St. Charles and St. Louis Counties, Missouri. Languages include Asian-Pacific Island, Spanish, other Indo-European, and other unspecified language.

Spire will attempt to identify linguistically isolated populations through continued negotiations with landowners and communications with local community leaders. Every effort will be made to insure that written and oral communications with any such populations identified utilize simple, plain language and pictures if needed to reduce the potential for negative impact to these populations through miscommunication.

Table 5.2-5. Linguistically Isolated Populations in the Affected Environment

Facility/County, State	Linguistically Isolated Population (percent)	Linguistically Isolated Households Language (estimated count)
24-Inch Pipeline		
Scott County, Illinois	2	Asian-Pacific Island (2)
Greene County, Illinois	0	Not Applicable (0)
Jersey County, Illinois	0	Not Applicable (0)
St. Charles County, Missouri	1	Spanish (2), Other Indo-European (1)
St. Louis County, Missouri	1	Other (2)
Line 880		
St. Louis County, Missouri	0	Not Applicable (0)
Contractor Yard		
Madison County, Illinois	0	Spanish (7)



5.3 References

United States Census Bureau. 2014. *Small Area Income and Poverty Estimates*. Accessed September 2016 from <https://www.census.gov/did/www/saipe/data/index.html>.

United States Environmental Protection Agency. 2016. *Promising Practices for EJ Methodologies in NEPA Reviews*. Accessed October 2016 from https://www.epa.gov/sites/production/files/2016-08/documents/nepa_promising_practices_document_2016.pdf.

United States Environmental Protection Agency. 2015. EJSscreen. Accessed October 2016 from www.epa.gov/ejscreen.