



MVP Southgate Amendment Project

Docket No. CP25-XX-000

Resource Report 5 – Socioeconomics

November 2018 (Docket No. CP19-14-000)

Amended February 2025

MVP Southgate Amendment Project Resource Report 5 – Socioeconomics

Resource Report 5 – Filing Requirements	
Information	Location in Resource Report
Minimum Filing Requirements	
1. Describe socioeconomic conditions within the project area. (§ 380.12(g)(1))	Section 5.3
2. Evaluate impact of any substantial immigration of people on governmental facilities and services and describe plans to reduce the impact on the local infrastructure. (§ 380.12(g)(2))	Section 5.4
3. Describe on-site manpower requirements and payroll during construction and operation including 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. (§ 380.12(g)(3))	Section 5.4.1, 5.4.2, 5.4.5
4. Determine whether existing housing within the impact area is sufficient to meet the needs of the additional population. (§ 380.12(g)(4))	Section 5.4.3
5. Describe 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. (§ 380.12(g)(5))	Section 5.4.3
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. (§ 380.12(g)(6))	Section 5.4.2 Appendix 5-A
Additional Information Often Missing and Resulting in Data Requests	
7. Estimate total worker payroll and material purchases during construction and operation.	5.3.7
8. Estimate project-related ad valorem and local tax revenues.	Section 5.4.2 Table 5.4-2 Appendix 5-A
9. Describe impacts on local traffic due to construction- and operation-related traffic and worker commuting. Address impacts on marine traffic where applicable (e.g., LNG import/export facilities).	Section 5.4.6
10. Evaluate the effects of the project on minority and low-income populations in consideration of Executive Order 12898. (59 Fed. Reg. 7629 (Feb. 16, 1994)).	Section 5.3.8, 5.4.8

RESOURCE REPORT 5 SOCIOECONOMICS

TABLE OF CONTENTS

5.1	INTRODUCTION	5-1
5.1.1	Environmental Resource Report Organization	5-1
5.2	ANALYSIS AREA	5-1
5.2.1	Pittsylvania County, Virginia.....	5-2
5.2.2	Rockingham County, North Carolina	5-2
5.3	EXISTING SOCIOECONOMIC CONDITIONS	5-2
5.3.1	Population	5-2
5.3.2	Employment and the Economy	5-3
5.3.3	Housing.....	5-4
5.3.4	Travel and Tourism.....	5-6
5.3.5	Public Services.....	5-7
5.3.6	Transportation.....	5-8
5.3.7	Tax Revenues.....	5-9
5.4	ECONOMIC EFFECTS AND MITIGATION	5-10
5.4.1	Population and Employment.....	5-10
5.4.2	Economy and Tax Revenue	5-11
5.4.3	Housing.....	5-12
5.4.4	Property Values.....	5-13
5.4.5	Community Infrastructure.....	5-13
5.4.6	Transportation and Traffic	5-13
5.4.7	Agriculture	5-14
5.5	ENVIRONMENTAL JUSTICE	5-15
5.5.1	Federal Environmental Justice Screening	5-16
5.5.2	State Environmental Justice Screening.....	5-26
5.5.3	Evaluation of Potential Disproportionate and Adverse Environmental Effects on Minority or Low-Income Populations	5-27
5.6	REFERENCES	5-36

LIST OF FIGURES

Table 5.5-1 Census Tracts and Block Groups within One Mile of the Amendment Project 5-18
 Table 5.5-2 Block Group and Census Tracts for Counties Containing the Amendment Project
 5-23

LIST OF TABLES

Table 5.2-1 Amendment Project Facilities..... 5-2
 Table 5.3-1 Population by State and County for the Amendment Project 5-3
 Table 5.3-2 Existing Income and Employment in the Amendment Project Area..... 5-3
 Table 5.3-3 Housing by State and County for the Amendment Project..... 5-4
 Table 5.3-4 Existing RV and Campground Facilities in the Amendment Project Counties 5-5
 Table 5.3-5 Domestic Travel-Related Economic Impacts in the Amendment Project
 Counties, 2022 5-7
 Table 5.3-6 Public Services in the Amendment Project Area..... 5-8
 Table 5.3-7 Major Interstates and Highways Crossed by the Amendment Project 5-9
 Table 5.3-8 Sales and Use Tax Rates by Location..... 5-10
 Table 5.4-1 Estimated State and Local Tax Revenues Generated During Construction for the
 Amendment Project 5-12
 Table 5.4-2 Estimated Annual Ad Valorem Tax Revenues During Operation by County for
 the Amendment Project 5-12
 Table 5.4-3 Summary of Agriculture by County and State, 2022 for the Amendment Project... 5-14
 Table 5.5-1 Census Tracts and Block Groups within One Mile of the Amendment Project 5-18
 Table 5.5-2 Block Group and Census Tracts for Counties Containing the Amendment Project
 5-23

LIST OF APPENDICES

Appendix 5-A Economic Benefits of the Amendment Project in Virginia and North Carolina

LIST OF ACRONYMS AND ABBREVIATIONS

ACS	American Community Survey
Amendment Project	MVP Southgate Amendment Project
Amendment Project EJ	One-mile radius around Amendment Project facilities
Analysis Area	
ATV	all-terrain vehicle
CSA	Combined statistical area
EJ	Environmental Justice
FEIS	Final Environmental Impact Statement
FERC or Commission	Federal Energy Regulatory Commission
HDD	horizontal directional drill
Mountain Valley	Mountain Valley Pipeline, LLC
MLV	mainline valve
MP	milepost
MSA	metropolitan statistical areas
NEPA	National Environmental Policy Act
NC 700	North Carolina Highway 700
NCDEQ	North Carolina Department of Environmental Quality
NCCMS	North Carolina Community Mapping System
NSA	noise-sensitive area
OEJ	Office of Environmental Justice
Original Certificated Project	MVP Southgate Project, as authorized on June 18, 2020
Policy	Policy on Environmental Justice for Working with Federally Recognized Tribes and Indigenous Peoples
RV	recreational vehicle
SR	State Route
Transco	Transcontinental Gas Pipe Line Company, LLC
U.S.	United States
US-29	U.S. Highway 29
US-311	U.S. Highway 311
US-58	U.S. Highway 58
USCB	U.S. Census Bureau
USEPA	U.S. Environmental Protection Agency
VA-57	Virginia State Highway 57
VADEQ	Virginia Department of Environmental Quality
VATC	Virginia Tourism Corporation
VDACS	Virginia Department of Agriculture and Consumer Services
VisitNC	Visit North Carolina

RESOURCE REPORT 5 SOCIOECONOMICS

5.1 INTRODUCTION

On June 18, 2020, in Docket No. CP19-14-000, the Federal Energy Regulatory Commission (“FERC” or “Commission”) issued a Certificate of Public Convenience and Necessity pursuant to Section 7(c) of the Natural Gas Act to Mountain Valley Pipeline, LLC (“Mountain Valley”) authorizing Mountain Valley to construct and operate the MVP Southgate Project (or “Original Certificated Project”). A Final Environmental Impact Statement (“FEIS”) was issued by FERC on February 14, 2020.

In December 2023, Mountain Valley submitted an update on the status of the Original Certificated Project, indicating that it had entered into precedent agreements for a redesigned pipeline route. Mountain Valley is currently seeking to amend the MVP Southgate Project (“Amendment Project”) by truncating the Original Certificated Project to approximately 31.3 miles, incorporating certain route deviations, increasing the diameter of the pipeline, removing the Lambert Compressor Station, and modifying the proposed interconnects. The Amendment Project facilities will be located in Pittsylvania County, Virginia, and Rockingham County, North Carolina. See Resource Report 1 for additional information on the Original Certificated Project and Amendment Project.

5.1.1 Environmental Resource Report Organization

Resource Report 5 is prepared and organized according to the FERC *Guidance Manual for Environmental Report Preparation*, dated February 2017 (FERC 2017). The information in Resource Report 5 remains consistent with the FEIS issued for the Original Certificated Project on February 14, 2020, except where updates are noted. Given that changes were incorporated into the Original Certificated Project and given that most socioeconomic data have been updated since the issuance of the FEIS, the socioeconomic analysis has been reviewed and revised herein based on the most recent data available.

5.2 ANALYSIS AREA

The socioeconomic analysis area for the Amendment Project focuses on the counties where the Amendment Project facilities will be constructed and operated: Pittsylvania County, Virginia, and Rockingham County, North Carolina. Approximately 85 percent of the pipeline (26.8 miles) will be located in Virginia (Table 5.2-1). Proposed aboveground facilities include the construction of four meter (interconnect) stations and four mainline valves (“MLV”) that will be installed at various locations along the pipeline route.

The Amendment Project counties contain several urban areas defined by the United States (“U.S.”) Census Bureau (“USCB”) as areas with a densely settled core created from census blocks and contiguous qualifying territory that together have at least 2,000 housing units or 5,000 persons (USCB 2023a). Pittsylvania County lies within the Danville micropolitan statistical area, and Rockingham County falls within the Greensboro-High Point metropolitan statistical area. These areas provide large labor pools consisting of highly skilled and well-educated workers, as well as access to a wide range of equipment, materials, services, and sufficient temporary housing to accommodate the Amendment Project workforce (U.S. Department of Commerce 2020). Socioeconomic impacts to these populated areas and surrounding communities and municipalities are anticipated to be minimal.

Table 5.2-1				
Amendment Project Facilities				
Facility	County, State	Approx. Milepost (“MP”)		Miles
		From	To	
H-650 Pipeline	Pittsylvania, VA	0.00	26.8	26.8
	Rockingham, NC	26.8	31.3	4.5
Total				31.3
Aboveground Facilities				
Lambert Interconnect / MLV 1	Pittsylvania, VA	0.0		NA
LN 3600 Interconnect	Pittsylvania, VA	28.9		NA
MLV 2	Pittsylvania, VA	7.8		NA
MLV 3	Pittsylvania, VA	18.8		NA
Dan River Interconnect #1 / MLV 4	Rockingham, NC	31.3		NA
Dan River Interconnect #2	Rockingham, NC	31.3		NA
NA = Not Applicable				

5.2.1 Pittsylvania County, Virginia

Approximately 26 miles of the pipeline and three meter stations will be in Pittsylvania County. The total land area in Pittsylvania County is 978.18 square miles and includes 9.23 square miles of water (USCB 2023b). The county is home to three towns and several other unincorporated communities with several major highways that cross through it (Pittsylvania County 2024a). Pittsylvania County is also included in the Danville micropolitan statistical area. For the purposes of this analysis, the City of Danville is not included as part of Pittsylvania County because it is an independent city bounded by Pittsylvania County and the North Carolina border and is located approximately 2.5 miles at its closest point to the Amendment Project.

5.2.2 Rockingham County, North Carolina

Approximately 4.5 miles of the pipeline and one interconnect will be in Rockingham County, North Carolina. The total land area in Rockingham County is 572.71 square miles and includes 7.15 square miles of water (USCB 2020). There is one public-use airport and several major highways that cross through the county. Rockingham County is included in the Greensboro-High Point metropolitan statistical area (“MSA”), which is part of the Greensboro-Winston-Salem-High Point combined statistical area (“CSA”). The county is home to two cities, four towns, and 10 townships (Rockingham County 2024).

5.3 EXISTING SOCIOECONOMIC CONDITIONS

The socioeconomic data used in this evaluation were obtained from the most recent U.S. Department of Commerce, USCB, and Bureau of Labor Statistics online databases. Additional information on community public services and available housing, hotel lodging, and rental units was obtained from publicly available online sources.

5.3.1 Population

Recent population data and trends, including population density for the Amendment Project, are provided in Table 5.3-1. The two counties crossed by the Amendment Project had a total combined population of

151,596 in 2022, with 60 percent of this total (91,095) located in Rockingham County and 40 percent (60,501) in Pittsylvania County.

Population densities by county in 2022 were 61.4 persons per square mile (persons/square mile) in Pittsylvania County and 161.0 persons/square mile in Rockingham County. The corresponding statewide densities were higher, averaging around 217 persons/square mile.

State / County	2023 Population	2020 Population Density (persons/square mile)	Population Change (Percent)	
			2010 to 2020	2020 to 2023
Virginia	8,811,195	218.6	7.6	1.0
Pittsylvania	59,571	62.4	-5.1	-1.5
North Carolina	11,046,024	214.7	9.1	3.8
Rockingham	92,518	161.0	1.9	1.6

Source: USCB 2024a

Within the Amendment Project area between 2010 and 2020, the population decreased by 5.1 percent in Pittsylvania County and increased by 1.9 percent in Rockingham County. Pittsylvania County's population continued to decline by another 1.5 percent from 2020 to 2023, and Rockingham County's population increased by another 1.6 percent from 2020 to 2023.

5.3.2 Employment and the Economy

Table 5.3-2 provides updated information on income and employment in the counties crossed by the Amendment Project. Per capita annual income was nearly equivalent in the Amendment Project counties, with an approximate \$1,200 difference. Unemployment rates in Pittsylvania and Rockingham Counties were higher than their respective state unemployment rates by 1.4 to 2.1 percent, respectively. In 2023, the total workforce was estimated to be 26,657 workers in Pittsylvania County and 43,178 workers in Rockingham County, with a combined workforce of 67,895 workers. Within the Amendment Project area, major occupations include jobs in education, health and social services, manufacturing, and retail trade (USCB 2024a). Other top industries in the Amendment Project area include construction; professional, scientific, and technical services; arts and entertainment; and public administration.

State / County	Per Capita Income (USD) <i>a/</i>	Labor Force (persons) <i>a/</i>	Unemployment Rate <i>b/, c/</i>	Top Five Major Industries <i>a/</i>
Virginia	\$49,217	4,580,910	2.7	A, E, P, Pu, R
Pittsylvania	\$30,209	26,657	4.0	A, C, E, M, R
North Carolina	\$39,616	5,351,978	3.6	A, E, M, P, R
Rockingham	\$31,381	43,178	5.6	C, E, M, P, R

Sources:
a/ USCB Selected Economic Characteristics 2019–2023 American Community Survey (“ACS”) 5-year estimates (USCB 2024b).
b/ Bureau of Labor Statistics (2024a), Table 1. Civilian Labor Force (June 2024 preliminary) for states.

c/ Bureau of Labor Statistics (2024b), Labor Force Data by County, 2023 Annual Averages for counties (number of unemployed people as a percentage of the labor force).
USD = U.S. Dollars

Industries:

- A = Arts, entertainment, recreation, accommodation, and food services
- C = Construction
- E = Educational, health, and social services
- M = Manufacturing
- P = Professional, scientific, management, administrative, and waste management services
- Pu = Public administration
- R = Retail trade

5.3.3 Housing

Table 5.3-3 provides updated housing data from the Amendment Project counties. Data on housing units are estimates for 2023 prepared by the USCB 2019–2023 ACS 5-year estimates (USCB 2020; 2024c). The number of total housing units varies across the Amendment Project area, largely based on the county population and the presence of the MSA, CSA, or micropolitan statistical area. Between 2019 and 2023, Pittsylvania County (with the lower population) had fewer housing units (29,468 units), while Rockingham County (with the higher population) had more housing units (43,685 units). Between the two counties, Pittsylvania County possessed the higher rental vacancy rate of 4.8 percent, while Rockingham County possessed the lower rate of 3.3 percent. Both counties had approximately 5,000 vacant housing units available (9,502 in total). Based on available online resources, approximately 32 hotels and motels are present within the Amendment Project counties, providing hundreds of rental units.

State / County	Housing Units 2022 <u>a/</u>			Hotels & Motels <u>b/</u>	Campgrounds & RV Parks <u>c/</u>
	Total	Vacant Housing Units	Rental Vacancy Rate (%)	# of Facilities/ Rooms	# of Facilities/ Sites
Virginia	3,654,784	328,524	4.9	NA	NA
Pittsylvania	29,468	4,835	4.8	17/1,139	5/172
North Carolina	4,815,195	628,271	6.9	NA	NA
Rockingham	43,685	4,667	3.3	15/603	4/147
Total	73,153	9,502	NA	32/1,742	9/319

Sources:

- a/ USCB 2019–2023. Selected Economic Characteristics 2019–2023 ACS 5-year estimates (USCB 2024c).
- b/ HotelMotels.info 2024; Google 2024; Experience Danville Pittsylvania County 2024; Visit Rockingham County 2024.
- c/ Go Camping America 2024; RV Clubs 2024; Experience Danville Pittsylvania County 2024.
- NA = Not Applicable
- RV = recreational vehicle

5.3.3.1 Existing RV and Campground Facilities

Table 5.3-4 lists the nine campgrounds and recreational vehicle (“RV”) facilities located within commuting distance of the Amendment Project.

Table 5.3-4

Existing RV and Campground Facilities in the Amendment Project Counties

Existing RV and Campground Facilities	Description / Amenities
Pittsylvania, VA	
Elkhorn Lake Campground and all-terrain vehicle (“ATV”) Trails 2500 Elkhorn Road, Java	<ul style="list-style-type: none"> • 560+ acre recreation area with private 110-acre lake and family campground • Opened year-round, gated • 60 RV sites onsite • Full hookups for electric service • 8.7 miles away from the closest point of pipeline centerline at MP 0.5 • Rustic cabins, picnic pavilions, fishing and boat ramp, swimming pool and water slide • Band events and entertainment • 31 miles of ATV trails and motorcycle Enduro track
Leesville Lake Campground 3129 Gallows Road, Gretna	<ul style="list-style-type: none"> • 40-acre campground site • Opened year-round, pet-friendly • 9.0 miles away from the closest point of pipeline centerline at MP 0.0 • 12 spacious full hookup campsites • Swimming pool • Large, wooded areas • Old road-bed trails • Access to a 17-mile-long lake providing fishing, boating, kayaking, canoeing, and other water sports and activities • Access to boat ramps, floating docks, and paved parking areas with boat trailer spaces
Paradise Lake and Campground 593 Keeling Drive, Keeling	<ul style="list-style-type: none"> • Opened year-round, pet-friendly • 17 large and 40 small RV sites with full hookups • 7 miles away from closest point of pipeline centerline at MP 11.0 • Rustic cabins and tent sites • Bath and laundry facilities • Swimming pool • Snack bar • Outdoor activities • Access to Paradise Lake provides fishing, paddle, and jon boating
Smith Mountain Campground 155 Liberty Road, Penhook	<ul style="list-style-type: none"> • Opened year-round, pet-friendly • Located adjacent to pond and 4 miles from Smith Mountain Lake with public boat landing • 20 large wooded and level RV sites with four pull-through sites, all with electric service • 17 miles away from closest point of pipeline centerline at MP 0.0 • 10 tent sites are available • Bathhouse and pavilion • Walking trails, outdoor activities
Running Cedar RV Resort 3129 Gallows Road Post Office Box 556, Gretna	<ul style="list-style-type: none"> • Located steps from the 17-mile-long Leesville Lake • 23 large wooded and level campsites with water and electric service • 18 miles away from closest point of pipeline centerline at MP 0.0 • Access to public lakefront picnic area with public boat ramp, fishing • Clubhouse with lounge area and game room, private outdoor pool, walking trails

Table 5.3-4	
Existing RV and Campground Facilities in the Amendment Project Counties	
Existing RV and Campground Facilities	Description / Amenities
Rockingham, NC	
Lake Reidsville 630 Water Works Road, Reidsville	<ul style="list-style-type: none"> • Multipurpose recreation facility with a campground located on a 750-acre lake and park providing outdoor activities • Opened year-round, every day • 46 wooded sites with water and electricity, with 28 having full hookups • 5 miles away from closest point of pipeline centerline at MP 46.5 • Swimming is not allowed since Lake Reidsville is a municipal water source
Dan River Campground 724 Webster Road, Stoneville	<ul style="list-style-type: none"> • Small family-owned and operated tent and RV campground site • Located on the Dan River, about 20 miles from the Martinsville Speedway • Opened April 1 through October 31, pet friendly • 53 RV sites (20 that have water, electric, and sewer hookups; 13 that have water and electric hookups that are available for RV camping) • Four tent sites have electric and water, and five sites are tenting-only with no hookups • 12.4 miles away from closest point of pipeline centerline at MP 36.0 • River activities include more than 30 canoes and kayaks and over 100 float tubes available • Swimming, outdoor activities, walking trails
Humphrey’s Ridge Marine and Campground, Belews Lake 548 Shelton Road, Stokesdale	<ul style="list-style-type: none"> • Located on Belews Lake, which is a 3,864-acre lake with an 88-mile shoreline • Opened early April through early September • 36 RV sites • 22 miles away from closest point of pipeline centerline at MP 41.0
Lisa’s RV Landing 3440 US 311, Madison	<ul style="list-style-type: none"> • Open year-round • 12 RV sites • 22 miles away from closest point of pipeline centerline at MP 40.0 • Can accommodate all types of campers from the smallest tent to the biggest 5th wheel and motorhomes with slide-outs • Electric hook-ups
Sources: Experience Danville Pittsylvania County 2024; Visit Rockingham County 2024	

5.3.4 Travel and Tourism

Table 5.3-5 provides updated domestic travel-related economic impacts for the Amendment Project area in 2022. The Amendment Project counties each account for less than 1 percent of travel-related expenditures compared to their respective state totals (Virginia Tourism Corporation [“VATC”] 2023a; VATC 2023b; Visit North Carolina [“VisitNC”] 2023).

5.3.4.1 Virginia

The Amendment Project area is in the southern region of Virginia, known for its six speedways, history and heritage, rolling countryside, and outdoor activities (Virginia 2024; VisitNC 2024a). Domestic and international travelers to Virginia spent nearly \$30.3 billion in 2022, supporting 210,720 jobs and providing \$2.2 billion in state and local taxes, making the travel industry the seventh-largest private employer in the state (VisitNC 2024b).

Among the 95 counties in Virginia, Pittsylvania County ranked 50th with respect to economic impacts resulting from domestic travel in 2016 (VATC 2023). Domestic travelers spent approximately \$32 million in Pittsylvania County in 2022, which represents less than 1 percent of the state’s total tourism revenues. The travel and tourism industry generated \$7.2 million in payroll in Pittsylvania County and resulted in approximately \$0.7 million in state tax revenue and \$1 million in local tax revenue in 2022 (Table 5.3-5).

5.3.4.2 North Carolina

The Amendment Project area is in the Greensboro and Winston-Salem region, known for having the nation’s largest natural-habitat zoo, being the furniture capital of the world, and having the nation’s largest pottery community (VisitNC 2024a). Domestic and international travelers to North Carolina spent nearly \$32 billion in 2022, supporting 210,890 jobs and providing \$2.5 billion in state and local taxes, making the travel industry the ninth-largest private employer in the state (VisitNC 2024b).

In 2022, domestic traveler expenditures in Rockingham County were approximately \$88 million, representing 0.3 percent of the state’s total tourism revenues (VisitNC 2023). The travel and tourism industry generated \$8.7 million in payroll in Rockingham County and resulted in approximately \$1.3 million in state tax revenue and \$1.2 million in local tax revenue in 2022 (Table 5.3-5).

State / County	Travel-Related Expenditures \$(millions)	Travel-Related Payroll \$(millions)	Travel-Related Employment (thousands)	Travel-Related State Tax Receipts \$(millions)	Travel-Related Local Tax Receipts \$(millions)
Virginia	\$30,344.28	\$8,553.84	210.72	\$783.11	\$1,390.73
Pittsylvania	\$31.5	\$7.2	268	\$0.7	\$1.1
North Carolina	\$32,415.9	\$8,700.9	210.89	\$1,275.7	\$1,181.6
Rockingham	\$88.19	\$23.1	0.656	\$3.60	\$2.9
Total	\$119.7	\$30.3	268.7	\$4.3	\$4.0

Sources: 2022 Impact of Travel on Virginia (VATC 2023); 2022 Impact of Travel on North Carolina (VisitNC 2023).

5.3.5 Public Services

Public services and facilities available in the Amendment Project area include education, police and fire services, and medical facilities. Updated information on select public services is provided in Table 5.3-6.

5.3.5.1 Education

The total number of public schools is summarized by county in Table 5.3-6. A total of 68 public and private elementary, middle, and high schools; vocational schools; community colleges; and universities are in the Amendment Project area counties. Refer to Resource Report 8 for further details.

5.3.5.2 Police and Fire Services

Updated data for law enforcement and fire departments are presented by county in Table 5.3-6. These data provide a general overview of resources available in each county. In general, the number of police and fire departments is directly related to the overall size and population of each county and the number of communities. Multiple law enforcement agencies and providers exist in the potentially affected counties

of the Amendment Project, including state patrol, county sheriffs, and local police departments. In many cases, mutual aid agreements allow agencies to support one another in emergencies.

The Amendment Project counties have a total of 12 law enforcement agencies (Table 5.3-6). The sheriff’s office in each county provides county-wide services staffed with, on average, 140 full and part-time deputies and officers who work in areas of corrections, operations, investigations, and administration. In addition, hundreds of state troopers in the corresponding states (approximately 675 in Virginia and over 1,600 in North Carolina) provide services similar to those of the counties (Virginia State Police 2024; North Carolina Department of Public Safety 2024).

Multiple fire departments provide fire protection, rescue, and suppression services in the Amendment Project counties. Many departments are staffed with at least a few full-time paid firefighters and several part-time volunteers. Several of the fire stations across the Amendment Project counties also provide combined medical services. Of the 21 fire stations in Pittsylvania County, two have combined emergency medical services (Pittsylvania County 2024b; Pittsylvania County 2024c).

5.3.5.3 Medical Facilities

Updated medical facility information is presented by county in Table 5.3-6. Three hospitals serve the Amendment Project counties with more than 600 beds; however, the counties have numerous outpatient clinics providing emergency and rehabilitation services, general care, eye and dental, onsite pharmaceuticals, and other specialty services. Pittsylvania County also has approximately four emergency transport agencies that provide emergency ambulance services to surrounding communities (Pittsylvania County 2024b).

County, State	Number of Schools <u>a/</u>	Number of Police Departments <u>b/</u>	Number of Fire and Rescue Departments <u>c/</u>	Number of Hospitals <u>d/</u>	Number of Hospital Beds <u>d/</u>
Pittsylvania, VA	39	6	21	1	279
Rockingham, NC	29	6	16	2	381
Total	68	12	37	3	660
Sources: <u>a/</u> Google Maps 2024; Pittsylvania County Schools 2024; Rockingham County Schools 2024 <u>b/</u> Pittsylvania County Sheriff 2024; Rockingham County Sheriff 2024 <u>c/</u> Carolinas Fire Page 2024; Pittsylvania County 2024c; USA Fire & Rescue 2024 <u>d/</u> American Hospital Directory 2024a; 2024b					

5.3.6 Transportation

The Amendment Project area is accessible by existing highways. Major routes that will be crossed by the Amendment Project are identified in Table 5.3-7. Major routes crossed by the pipeline route in Pittsylvania County include U.S. Highway 29 (“US-29”) and U.S. Highway 58 (“US-58”). US-29 extends north/south for approximately 1,036 miles from Pensacola, Florida, to the western suburbs of Baltimore, Maryland. The pipeline will cross US-29 once near MP 4.7 in Pittsylvania County. US-29 bisects Virginia, entering the state at Danville and passing through several towns before leaving the state in Arlington County and entering the District of Columbia (AARoads 2024). US-58 is an east/west highway that extends for

approximately 508 miles from just northwest of Harrogate, Tennessee, to U.S. Highway 60 in Virginia Beach, Virginia. The Amendment Project pipeline will cross US-58 near MP 20.4.

Other major routes crossed by the pipeline alignment include North Carolina Highway 700 (“NC 700”), U.S. Highway 311 (“US-311”), and State Route (“SR”) 41. NC 700 is a rural east-west two-lane highway traversing from Eden to US-29 in Pelham, North Carolina. In Rockingham County, the pipeline will cross NC 700 near MP 31.4. US-311 is a major highway traversing northeast from Winston-Salem, North Carolina, up to south-central portions of Virginia near Danville, Virginia, for approximately 62 miles.

In Rockingham County, the Amendment Project will cross US-311 near MP 27.3 and will parallel US-311 through Rockingham County until the highway’s termination in Danville, Virginia. SR 41 is a primary state highway in Virginia that extends northwest for approximately 22.5 miles from SR 360 northeast of Danville to SR 57 in Callands, Virginia. In Pittsylvania County, the pipeline will cross SR 41 near MP 11.1.

Table 5.3-7

Major Interstates and Highways Crossed by the Amendment Project		
County, State	Approximate MP	Highway
Pittsylvania, VA	4.7	US-29
Pittsylvania, VA	11.1	SR 41 (Franklin Turnpike)
Pittsylvania, VA	20.4	US-58 (Martinsville Highway)
Rockingham, NC	27.3	US-311
Rockingham, NC	31.4	NC 700

Other transportation available in the region includes train and airline resources. Virginia has more than 3,000 miles of railroad track serving the eastern half of the country. Virginia also has four international airports, 16 regional airports, and one major deep-water seaport supporting four marine terminals (Virginia Beach Department of Economic Development 2024). North Carolina has more than 3,200 miles of railroad track serving 22 states in the eastern half of the country. North Carolina also has four international airports, 10 regional airports, and two major deep-water seaports (Economic Development Partnership of North Carolina 2024). The Northeast Regional rail line provides daily round-trip service throughout the majority of the Amendment Project area (Amtrak 2022). The Burlington-Alamance and Danville Regional airports provide regional air service to many major cities, internal and external to Virginia and North Carolina. The Piedmont Triad International Airport in Greensboro, North Carolina, is approximately 31 miles away from the closest point of the proposed pipeline at MP 31.54 (West Piedmont Planning District Commission 2024).

5.3.7 Tax Revenues

5.3.7.1 Sales and Use Taxes

The general sales and use tax rate for Virginia is 6.3 percent (5.3 percent state tax and one percent local tax), Table 5.3-8. Additional state tax is imposed in the Northern Virginia and Hampton Roads regions, neither of which is crossed by the Amendment Project (Virginia Department of Taxation 2024).

The general sales and use tax rate for North Carolina is 7.0 percent (4.75 percent state tax plus applicable local rates at 2.25 percent tax) (North Carolina Department of Revenue 2024).

Table 5.3-8			
Sales and Use Tax Rates by Location			
County, State	County Tax Rate (%)	State Tax Rate (%)	Total Tax Rate (%)
Pittsylvania, VA	1.0	5.3	6.3
Rockingham, NC	2.25	4.75	7.0

5.4 ECONOMIC EFFECTS AND MITIGATION

Like the FEIS for the Original Certificated Project concluded, construction impacts from the Amendment Project will be short-term and localized primarily due to the short construction period and small composition of the labor force. Potential effects associated with the construction of the Amendment Project could result in minor temporary increases in the local population, demand for temporary housing, and use of temporary public services such as police, fire, and medical services. However, similar to the Original Certificated Project, a review of more recent data indicates that sufficient public services exist within the Amendment Project area to support the needs of the construction crew and personnel associated with the construction of the Amendment Project. In addition, construction activities will be in and near urban areas that have sufficient capability and capacity to manage the temporary influx of personnel without affecting the level of service provided to the current population. As with the Original Certificated Project, revenues from construction employment, local expenditures by construction companies for construction materials, and non-local construction workers for temporary housing, food, and entertainment will temporarily benefit the local economies along the Amendment Project.

5.4.1 Population and Employment

Overall, major construction activities associated with the construction of the pipeline and associated facilities of the Amendment Project are expected to take nine months, with a proposed construction start date in the fourth quarter of 2026. Based on current discussions with qualified construction contractors, Mountain Valley estimates that local workers will account for approximately 55 percent of construction jobs for the duration of the Amendment Project. The remaining 45 percent of the construction workforce will consist of non-local workers. Local workers are defined here as those who normally reside within daily commuting distance of the work sites.

Non-local workers will temporarily relocate to the Amendment Project vicinity for the duration of their employment; some workers will possibly commute home on weekends, depending on the location of their primary residence. Individual non-local workers may also relocate along the length of the Amendment Project and between segments depending on their assignment. Very few of the non-local workers employed during the construction phase of each spread are expected to be accompanied by family members or permanently relocate to the affected areas. If a larger than anticipated percentage of non-local construction personnel is required to meet peak workforce requirements, sufficient workers should be available in the labor pool in the surrounding areas since the Amendment Project is located within large CSA/MSA areas.

Table 1.4-2 compares the projected average and peak numbers of non-local workers with the existing population. These estimates illustrate the number of non-local workers expected to be present during construction. Non-local workers seeking temporary accommodation will reside in daily commuting distance of their work sites. Some non-local workers will likely reside in the counties within which they

are working; others may be located in larger communities in adjacent or nearby communities. This is discussed further in Section 5.4.3.

Mountain Valley expects approximately four new jobs will also be required for operations and maintenance of the Amendment Project facilities.

Impacts to the local population in the Amendment Project area from non-local construction activities will be temporary and minimal. Non-local construction personnel will typically disperse following the completion of specialized construction activities. Therefore, no long-term population impacts will result from the construction of the Amendment Project.

5.4.2 Economy and Tax Revenue

5.4.2.1 Economic Benefits of the Amendment Project

Mountain Valley has engaged an independent third party to conduct an economic analysis of the Amendment Project and has included the results within this resource report (Appendix 5-A). The economic analysis concludes that the construction and operational spending on the Amendment Project, along with the ad valorem taxes generated, will produce economic benefits to Virginia and North Carolina. In addition, the Amendment Project is likely to result in direct-use benefits from switching to natural gas from fuel oil or propane for household heating. The economic analysis estimates that over \$2.7 million in annual fuel cost savings across the Amendment Project counties. The natural gas provided by the Amendment Project is also likely to benefit the manufacturing sector in the local area. Access to a reliable source of natural gas is an influencing factor in retaining existing manufacturers and attracting new manufacturers to the area.

5.4.2.2 Construction-Related Tax Revenues

As fully detailed in the Appendix 5-A economic analysis, Mountain Valley estimates that it will spend approximately \$370 million on labor, equipment, materials, acquisition, and other services to develop and construct the project facilities, of which \$80.1 million is expected to be spent directly in Virginia, and \$23.8 million is expected to be spent directly in North Carolina. These expenditures will generate economic activity and support employment and income elsewhere in the economy through the multiplier effect, as initial changes in demand “ripple” through the local economy and support indirect and induced impacts. During peak construction, Mountain Valley estimates that the Amendment Project will generate and support an estimated 770 total (direct, indirect, and induced) jobs in Virginia during Amendment Project construction and an estimated 220 total jobs in North Carolina. Mountain Valley anticipates spending a total of \$75.4 million in labor income during construction, with an average annual labor income of \$64,400.

Table 5.4-1 below shows the tax revenue that the Amendment Project will generate over the pre-construction and construction periods. Mountain Valley estimates that it will generate \$80.1 million and \$23.8 million in tax revenue for Virginia and North Carolina, respectively, with the largest impact from property taxes. The property tax value is conservative in that it excludes estimated property taxes for materials that are on-site but not yet installed.

Table 5.4-1

Estimated State and Local Tax Revenues Generated During Construction for the Amendment Project

Type of Tax	Virginia (\$ million) <u>a/</u>	North Carolina (\$ million) <u>a/</u>
Sales and Use Tax	\$4.4	\$1.2
Income Tax	\$48.4	\$13.8
Property Tax <u>b/</u>	\$10.0	\$3.21
Other Personal	\$0.0	\$0.0
Other Business	\$17.3	\$5.63
Total	\$80.1	\$23.8

a/ These estimates are aggregate totals for the entire construction period.
b/ Taxes generated by induced economic activity during construction; numbers conservatively do not include property taxes paid directly by Mountain Valley during construction.
Source: FTI Consulting 2024.

5.4.2.3 Ad Valorem Tax Revenues

Estimated ad valorem taxes that will be paid once the pipeline is in service are presented by county and state in Table 5.4-2 (FTI Consulting 2024). Estimated ad valorem tax revenues as a share of general fund total revenues in the Amendment Project counties will range from 0.2 percent (Rockingham County) to 1.4 percent (Pittsylvania County).

Table 5.4-2

Estimated Annual Ad Valorem Tax Revenues During Operation by County for the Amendment Project

County / State	General Fund Total Revenues (dollars) <u>a/ b/</u>	Annual Ad Valorem Taxes (dollars)	Percent of General Fund Total Revenues
Pittsylvania, VA	\$79,661,570	\$1,140,000	1.4%
Rockingham, NC	\$155,011,511	\$328,000	0.2%
Total	\$194,673,081	\$1,468,000	

a/ Pittsylvania County 2024d
b/ Rockingham County 2024
Source: FTI Consulting 2024.

5.4.3 Housing

During construction of the Amendment Project, the use of non-local construction workers will increase the demand for temporary short-term housing in the vicinity of the Amendment Project area. Like the FEIS described for the Original Certificated Project, the majority of non-local construction workers will likely temporarily relocate to the vicinity of the Amendment Project area for the duration of their employment, possibly commuting home on weekends, depending on the location of their primary residence. Non-local construction workers are most likely to use available temporary housing such as area campgrounds/RV parks and hotel/motels in the Amendment Project area and possibly adjacent towns or counties that are within a reasonable daily commuting distance of the Amendment Project. Based on recent data, there are 12 RV and campground facilities located in the Amendment Project counties, providing over 400 individual RV sites, the majority of which are open year-round.

Similar to the conclusions for the Original Certificated Project described in the FEIS and given the large number of available vacant housing units, the number of potential hotel rooms available in each Amendment Project county, plus the 300 individual RV sites, the Amendment Project is unlikely to displace permanent residents or adversely affect housing prices or cause any conflicts with tourism.

5.4.3.1 Travel and Tourism

The Amendment Project counties provide mainly outdoor recreation tourist attractions but also provide arts, music, historical structures and districts, dining, museums, sporting events, and shopping opportunities. Scheduled construction of the Amendment Project will overlap with the peak tourism season and could impact public access to tourist attractions and accommodations. However, as concluded in the FEIS for the Original Certificated Project, construction contractors for the Amendment Project could increase competition for vacant rental units, hotel/motel rooms, and camping spots that would otherwise be procured by visitors to the Amendment Project area but available temporary housing is sufficient to accommodate the expected influx of workers and other housing needs.

5.4.3.2 Displacement of Residences and Businesses

Mountain Valley has no plans to displace or relocate any businesses as a result of the construction or operation of the Amendment Project.

5.4.4 Property Values

As described in the FEIS for the Original Certificated Project, several studies have examined the effects of gas pipelines on sales and property values. Additionally, FERC has researched pipelines' effects on property values and found that there was no pipeline-related impact on property value. As was concluded in the FEIS for the Original Certificated Project, no significant adverse impact on property values is anticipated from the Amendment Project.

5.4.5 Community Infrastructure

The Amendment Project counties have numerous medical facilities and emergency response services to temporarily accommodate the construction workforce (Table 5.3-6). The communities in the Amendment Project area have adequate public service infrastructure to meet the potential needs of non-local workers who relocate temporarily. Therefore, as was concluded in the FEIS for the Original Project, the Amendment Project will not significantly impact public services.

5.4.6 Transportation and Traffic

Resource Report 8 (Table 8.2-4) provides a complete list of public road crossings for the Amendment Project. Major state and federal transportation routes and highways that will be crossed by the Amendment Project are also identified in Table 5.3-7. To the extent feasible, existing public and private roads in the Amendment Project area will be used to access the Amendment Project facilities.

As described in the FEIS for the Original Certificated Project, construction impacts on the transportation system in the Amendment Project area are anticipated to be short-term and minor. Construction impacts on Amendment Project area roads will include disruption to traffic flow due to the movement of construction equipment, materials, and crew members and damage to local roads from the movement of heavy construction equipment and materials. As described in the FEIS, Mountain Valley will minimize

these effects by implementing measures to reduce the track out of sediment, inspect the roads to determine if damages have occurred, and implement the revised Traffic and Transportation Management Plan, included in Resource Report 1, Appendix 1-G. Additionally, following construction, roads will be restored to their original conditions unless otherwise directed by the responsible landowner, county, or state agency. With the implementation of these measures, as was concluded in the FEIS, construction activities will result in temporary to short-term impacts on transportation infrastructure.

5.4.7 Agriculture

In Virginia, agriculture is the largest private industry, contributing \$82.3 billion annually and providing more than 490,000 jobs. According to a 2021 economic impact study, production agriculture employs nearly 52,712 farmers and workers in Virginia and generates approximately \$3.9 billion in total output (Virginia Department of Agriculture and Consumer Services [“VDACS”] 2022). Land in farms accounted for 27 percent of the total land area in Virginia in 2022 (Table 5.4-3). However, the number of farms in Pittsylvania County accounted for approximately 2.7 percent (1,053 farms) of the total number of farms in Virginia, which is 38,995 farms, and represented approximately 2 percent of agricultural market value compared to that of the state (U.S. Department of Agriculture [“USDA”] 2022a; 2022b).

In North Carolina, agriculture is expected to see modest declines between 2022 and 2032, and agricultural employment is likely to follow the national projected trend of 2 percent during the same period (Projections Managing Partnership 2024). This decrease will most likely be driven by employment declines in animal production and aquaculture but will be offset by a modest gain in crop production (LEAD 2024). Land in farms accounted for 26 percent of the total land area in North Carolina in 2022. Rockingham County in North Carolina accounted for an average of 1.8 percent (769 farms) of the total farms in North Carolina (42,817) (USDA 2022c; 2022d) (Table 5.4-3).

County/State	Number of Farms	Land in Farms (acres)	% of Total Land Area	Average Farm Size (acres)	Market Value of Agriculture Products Sold	Total Market Value of Agriculture Products Sold	
						Crops (%)	Livestock, Poultry, and Products (%)
Virginia	38,995	7,309,687	26.7	187	\$5,491,996,000	34	66
Pittsylvania	1,053	244,183	39.4	232	\$99,819,000	37	63
North Carolina	42,817	8,128,136	26.1	190	\$18,692,574,000	25	75
Rockingham	902	112,166	30	142	\$28,327,000	66	34

Sources: USDA 2022a; 2022b; 2022c; 2022d

Agricultural land accounted for approximately 10.2 percent of the total land area where the Amendment Project facilities will be located. Of that amount, 58.74 acres will be impacted during the construction and operation of the Amendment Project (42.12 temporary, 16.62 permanent). Agricultural land temporarily affected by construction will be restored and allowed to return to agricultural uses after construction. Likewise, permanent impacts associated with the Amendment Project are limited to pipeline operational right-of-way, which will also be allowed to return to agricultural practices upon the completion of

construction. No agricultural land will be permanently converted to non-agricultural land as a result of the Amendment Project. Therefore, the Amendment Project is unlikely to noticeably affect overall agricultural production and employment in either of the Amendment Project counties. Further, Mountain Valley has acquired 97 percent of the total easements needed for the construction of the Amendment Project and has compensated landowners of those easements at fair market value. Refer to Resource Report 8 for further discussion regarding land use.

5.5 ENVIRONMENTAL JUSTICE

As discussed in the FEIS, federal agencies conducting NEPA analyses identify and address “disproportionately high and adverse human health or environmental effects” of their actions on minority and low-income populations. The U.S. Environmental Protection Agency (“USEPA”) defines environmental justice (“EJ”) as “the just treatment and meaningful involvement of all people, regardless of income, race, color, national origin, Tribal affiliation, or disability, in agency decision-making and other Federal activities that affect human health and the environment” (USEPA 2024e).

Since the issuance of the FEIS, Mountain Valley has evaluated updated information from relevant data sources, including the ACS, to conduct a recent screening analysis of potential EJ communities along the Amendment Project route. This updated review reflects Mountain Valley’s continued commitment to identifying and mitigating potential impacts on these communities and further confirms the conclusions from the FEIS that the Amendment Project’s construction and operation are not anticipated to have a disproportionately high and adverse environmental impact on communities with EJ concerns. Mountain Valley began meaningful engagement with potentially impacted communities in 2018 and has continued that engagement to the present. Mountain Valley has performed outreach to identified communities with EJ concerns and sensitive receptors with the goal of ensuring that the Amendment Project will not disproportionately or adversely affect minority and low-income populations. The EJ analysis described in this report is based on the concepts noted above and the FERC’s recent EJ analyses completed for similar projects. Consistent with this approach, the review area for this assessment consisted of census block groups within an appropriate radius from each facility type associated with the Amendment Project. Informed by recent FERC EJ analyses, the geographic scope evaluated for potential construction and localized operational impacts included all census block groups within a one-mile radius of the pipeline construction workspace, meter stations, and contractor yards (“Amendment Project EJ Analysis Area”) (FERC 2022). These radii are sufficient to encompass the likely concentration of construction activities and associated environmental impacts for each facility type, as well as more localized operational impacts such as noise, visual, and socioeconomic impacts.

Consistent with recent FERC EJ analyses, Mountain Valley used a three-part methodology to complete the EJ analysis for the Amendment Project: (1) whether EJ communities exist in the Amendment Project EJ Analysis Area; (2) whether impacts on EJ communities are disproportionately high and adverse; and (3) whether there are possible measures that can be implemented to mitigate disproportionately high and adverse effects (FERC 2023). As used in this report and consistent with recent FERC EJ analyses, an “EJ community” is a census block group in the Amendment Project EJ Analysis Area that includes (1) a minority population that exceeds 50 percent of the block group’s population or is at least 10 percent more than the minority population in the block group’s county or (2) a low-income population that is equal to or greater than the block group’s county (FERC 2023).

A census block group is the smallest geographical unit for which the USCB publishes data. Each census block group represents a statistical division of a census tract and is generally defined to include between 600 and 3,000 individuals. A census tract is a small, relatively permanent statistical subdivision of a county that generally has a population size between 1,200 and 8,000 people, with an optimum size of 4,000 people, and usually covers a contiguous area.

5.5.1 Federal Environmental Justice Screening

As part of the process of identifying potential low-income and minority communities, the USEPA's *Environmental Justice Screening and Mapping Tool 2.3* (which has been updated since the issuance of the FEIS) was used as an initial step to gather information regarding minority and/or low-income populations, potential environmental quality issues, environmental and demographic indicators, and other important factors for all census block groups within the Amendment Project EJ Analysis Area (USEPA 2024a). The EJScreen tool aided in verifying census tract block group identifiers and geographic boundaries. However, minority populations and low-income populations identified through EJScreen were not always consistent with the data obtained from the ACS datasets. Use of the ACS datasets and the methods described in Section 5.5.1 for identifying EJ communities was a more conservative approach (i.e., the ACS datasets identified more communities that meet the above EJ definition than EJScreen).

According to the Council on Environmental Quality's *Environmental Justice Guidance Under the National Environmental Policy Act* and USEPA's *Promising Practices*, minority populations are those groups that include American Indian or Alaskan Native; Asian or Pacific Islander; Black, not of Hispanic origin; or Hispanic. Following the recommendations set forth in *Promising Practices*, FERC uses the **50 percent** and the **meaningfully greater analysis** methods to identify minority populations. Using this methodology, minority populations are defined where either (a) the aggregate minority population of the block groups in the affected area exceeds 50 percent or (b) the aggregate minority population in the block group affected is 10 percent or more than the aggregate minority population percentage in the county (i.e., at least 1.1 times the county percentage) (FERC 2023). The guidance also directs low-income populations to be identified based on the annual statistical poverty thresholds from the USCB (i.e., low-income households are those living below the federal poverty level). Using *Promising Practices*' **low-income threshold criteria** method, low-income populations are identified as block groups where the percentage of low-income households in the identified block group is equal to or greater than that of the county. Pittsylvania County, Virginia, and Rockingham County, North Carolina, are selected as the comparable reference communities to ensure that affected EJ communities are properly identified. Per *Promising Practices*, a reference community may vary according to the characteristics of the particular project and the surrounding communities.

Table 5.5-1 lists all census tracts and census block groups within the Amendment Project EJ Analysis Area, includes ACS data on the socioeconomic characteristics of each census block group and indicates which Amendment Project facility(ies) are located within each census block group. As Table 5.5-1 demonstrates, seven census block groups satisfy the minority population criterion, and six census block groups satisfy the low-income threshold criterion.

5.5.1.1 USEPA's Environmental Justice Showcase Communities

A review of USEPA's *Environmental Justice Showcase Communities* for Regions 3 and 4 determined that none of the Amendment Project facilities are located in these communities (USEPA 2024b).

5.5.1.2 Tribal Consultation

On July 24, 2014, the USEPA issued its Policy on *Environmental Justice for Working with Federally Recognized Tribes and Indigenous Peoples* (“Policy”). The Policy focuses on USEPA’s work with federally recognized tribes, state-recognized tribes, tribal members, indigenous community-based/grassroots organizations, Native Hawaiians, individual Native Americans, and others living in Indian country. The Policy also discusses USEPA’s work with other federal agencies, state agencies, and other interested groups (USEPA 2024a).

Mountain Valley is actively coordinating with federally recognized tribes that are cooperating agencies in the FERC process (see Resource Report 4 for more details). In addition, the Mountain Valley has conducted outreach with state-recognized tribes and has been actively coordinating with interested tribal representatives. Mountain Valley reinitiated Tribal outreach for the Amendment Project on July 31, 2024, presenting the Amendment Project information to tribes that originally responded to 2018 outreach. From that group of 33 contacted tribes, including those federally recognized and others recognized by Virginia and North Carolina, two tribes responded with immediate interest in receiving updates on the Amendment Project. The Occaneechi Band of the Saponi Nation (state-recognized, residing in North Carolina near the Amendment Project area) and the Catawba Nation (federally recognized, residing in South Carolina) have requested project updates and desire to review cultural resource reports from newly impacted areas of the Amendment Project. Mountain Valley met virtually with the Catawba Nation on August 1, 2024, and the Occaneechi Band of the Saponi Nation on September 3, 2024.

In addition to federal guidance, Mountain Valley also took into consideration state-level EJ policies, as applicable, which are further discussed in the following sections (see Section 5.5.2 below).

5.5.1.3 Opportunity Zones

Opportunity Zones¹ are a community development program established by Congress in the Tax Cuts and Jobs Act of 2017 to encourage long-term investments in low-income urban and rural communities nationwide. The Opportunity Zones program provides a tax incentive for investors to reinvest their unrealized capital gains into Opportunity Funds that are dedicated to investing in Opportunity Zones designated by the chief executives of every U.S. state and territory (EIG 2024).

The federal law allows each state to designate up to 25 percent of its total low-income census tracts as Opportunity Zone candidates. Virginia and North Carolina have just over 900 and 1,000 of these tracts, respectively, so only 212 and 252 census tracts could be selected as Opportunity Zones, respectively (Virginia Department of Housing and Community Development 2024; North Carolina Opportunity Zones Program 2018). Opportunity Zones for the Amendment Project counties are displayed in Figure 5.5-1. Many of these zones correspond to the census tracts containing potential EJ communities where the Amendment Project facilities are located or will cross.

¹ An Opportunity Zone is an economically distressed community where new investments, under certain conditions, may be eligible for preferential tax treatment. Localities qualify as Opportunity Zones if they have been nominated for that designation by the state and that nomination has been certified by the Secretary of the U.S. Treasury via his delegation authority to the Internal Revenue Service (2024).

Table 5.5-1

Census Tracts and Block Groups within One Mile of the Amendment Project

State/County Block Group/ Census Tract	Total Population	Median Household Income (USD)	Percent														Amendment Project Facilities within Identified Block Groups <i>g/</i>			
			White	African American	Native American and Alaskan Native	Asian	Native Hawaiian and Pacific Islander	Some Other Race	Two or More Races	Hispanic or Latino Origin	Children (5 and under) <i>a/</i>	Elderly (over 65) <i>b/</i>	Non- English at Home <i>c/</i>	Less Than High School Education <i>d/</i>	Minority Population <i>e/</i>	Households Below Poverty Level <i>f/</i>	Pipeline	Mainline Valve Site	Meter Station	Contractor Yard
Virginia	8,811,195	\$89,931	59.0	18.4	0.1	6.8	0.1	0.5	4.3	10.7	5.7	16.3	15.5	9.6	41.0	10.2				
Pittsylvania County	60,148	\$52,619	73.4	20.6	0.0	0.5	0.0	0.0	2.4	2.8	4.2	24.1	3.9	13.8	26.6	16.7				
Block Group 1, Census Tract 105	587	NA	91.5	3.1	0.0	0.0	0.0	0.0	0.0	5.5	0.0	20.3	4.0	6.7	8.5	28.7	H-650 <i>f/</i>	--	Lambert Interconnect/ MLV 1 <i>h/</i>	CY-01 <i>h/</i>
Block Group 3, Census Tract 105	2,832	NA	56.1	40.1	0.0	0.2	0.0	0.0	0.3	3.2	0.25	21.5	3.0	29.1	43.8	28.6	H-650 <i>f/</i>	--	--	--
Block Group 1, Census Tract 108.01	1,336	NA	55.4	40.6	0.0	0.8	0.0	0.0	0.0	3.1	7.0	22.5	0.0	14.7	44.5	15.2	--	--	--	CY-37 <i>h/</i>
Block Group 1, Census Tract 109	1,079	NA	79.2	10.7	0.0	0.0	0.0	0.0	8.3	1.7	0.0	20.8	0.0	3.6	20.8	6.1	H-650	--	--	--
Block Group 2, Census Tract 109	1,916	NA	72.9	11.5	0.0	0.0	0.0	0.0	2.1	13.5	2.9	26.8	11.0	12.6	27.1	10.9	H-650 <i>h/</i>	MLV 2	--	--
Block Group 1, Census Tract 110.02	1,656	NA	82.4	12.7	0.0	0.0	0.0	0.0	3.1	1.8	1.9	27.1	1.0	16.1	17.6	22.2	H-650 <i>h/</i>	--	--	--
Block Group 2, Census Tract 110.02	1,245	NA	80.6	16.5	0.0	0.0	0.0	0.0	1.0	1.4	2.8	37.0	1.0	3.2	19.4	4.6	H-650	--	--	--
Block Group 3, Census Tract 110.02	1,192	NA	81.5	16.9	0.0	0.0	0.0	0.0	1.6	0.0	5.9	14.6	0.0	9.9	18.5	9.9	H-650	--	--	--
Block Group 1, Census Tract 110.01	1,013	NA	72.7	21.7	0.0	0.0	0.0	0.0	5.6	0.0	8.6	22.8	0.0	7.6	27.3	3.6	H-650	MLV 3	--	--
Block Group 2, Census Tract 110.01	1,027	NA	86.1	1.5	0.0	11.3	0.0	0.0	1.2	0.0	5.0	21.6	0.0	10.4	13.9	5.9	H-650	--	--	--
Block Group 1, Census Tract 111	1,168	NA	88.3	1.4	0.0	2.2	0.0	0.0	4.5	3.6	5.9	18.3	0.0	8.7	11.7	13.0	H-650 <i>h/</i>	--	--	--
Block Group 2, Census Tract 111	1,068	NA	57.0	40.9	0.0	0.0	0.0	0.0	2.1	0.0	2.1	32.1	0.0	7.7	42.3	4.2	H-650 <i>h/</i>	--	--	--
Block Group 1, Census Tract 114	1,623	NA	76.3	14.2	0.1	0.7	0.0	0.0	7.0	1.7	3.5	17.3	3.4	7.9	23.7	9.1	--	--	--	CY-37
North Carolina	11,046,024	\$83,448	60.6	20.3	0.8	3.1	0.1	0.4	3.7	12.3	5.6	16.9	13.0	11.4	39.4	13.3				
Rockingham County	91,585	\$60,548	70.5	17.5	0.2	0.2	0.2	0.5	4.1	7.4	5.0	20.8	5.7	15.6	29.5	16.9				

Table 5.5-1

Census Tracts and Block Groups within One Mile of the Amendment Project

State/County Block Group/ Census Tract	Total Population	Median Household Income (USD)	Percent														Amendment Project Facilities within Identified Block Groups ^{g/}			
			White	African American	Native American and Alaskan Native	Asian	Native Hawaiian and Pacific Islander	Some Other Race	Two or More Races	Hispanic or Latino Origin	Children (5 and under) ^{a/}	Elderly (over 65) ^{b/}	Non-English at Home ^{c/}	Less Than High School Education ^{d/}	Minority Population ^{e/}	Households Below Poverty Level ^{f/}	Pipeline	Mainline Valve Site	Meter Station	Contractor Yard
Block Group 1, Census Tract 402	947	NA	82.3	5.2	0.0	0.0	0.0	0.0	5.1	8.1	7.8	24.9	4.0	23.8	17.7	27.1	H650 ^{h/}	--	Dan River Interconnect #1, Dan River Interconnect #2/MLV 4, LN 3600 Interconnect ^{h/}	CY-05 ^{h/} and CY-36 ^{h/}
Block Group 2, Census Tract 402	1,656	NA	46.9	37.7	0.0	2.5	0.0	0.0	3.7	10.2	10.8	11.9	10.7	24.4	53.1	8.7	--	--	--	CY-05 and CY-36
Block Group 3, Census Tract 402	934	NA	46.9	28.2	0.0	0.0	0.0	0.0	9.7	17.9	1.5	15.8	6.0	25.6	53.1	36.7	--	--	Dan River Interconnect #1, Dan River Interconnect #2/MLV 4	CY-05 and CY-36
Block Group 1, Census Tract 401.01	680	NA	75.0	6.6	0.0	4.3	0.0	1.6	2.9	7.2	4.7	27.6	6.0	16.4	25.0	11.2	H-650	--	Dan River Interconnect #1, Dan River Interconnect #2/MLV 4; LN 3600 Interconnect	--
Block Group 2, Census Tract 401.01	1,433	NA	80.5	13.5	0.0	0.0	0.0	0.0	6.0	0.0	3.9	24.8	4.0	9.3	19.5	12.2	--	--	Dan River Interconnect #1, Dan River Interconnect #2/MLV 4	--
Block Group 1, Census Tract 403	1,547	NA	78.7	19.7	0.0	0.0	0.0	0.0	1.6	0.0	1.9	24.7	0.0	2.9	21.3	4.7	--	--	--	CY-05
Block Group 3, Census Tract 403	1,051	NA	67.2	19.0	0.0	0.0	1.1	0.0	6.0	7.1	3.4	33.5	4.2	18.4	32.8	23.9	--	--	--	CY-05
Block Group 4, Census Tract 404	1,667	NA	55.0	45.0	0.0	0.0	0.0	0.0	0.0	0.0	3.5	9.7	0.0	4.1	45.0	4.4	--	--	--	CY-05
Block Group 5, Census Tract 411	924	NA	68.5	31.5	0.0	0.0	0.0	0.0	0.0	0.0	3.9	26.7	1.0	9.4	31.56	4.8	H-650	--	--	--

Source: USCB 2019-2023 ACS 5-Year Estimates, B03002 and B17017 (USCB 2024d, 2024e).

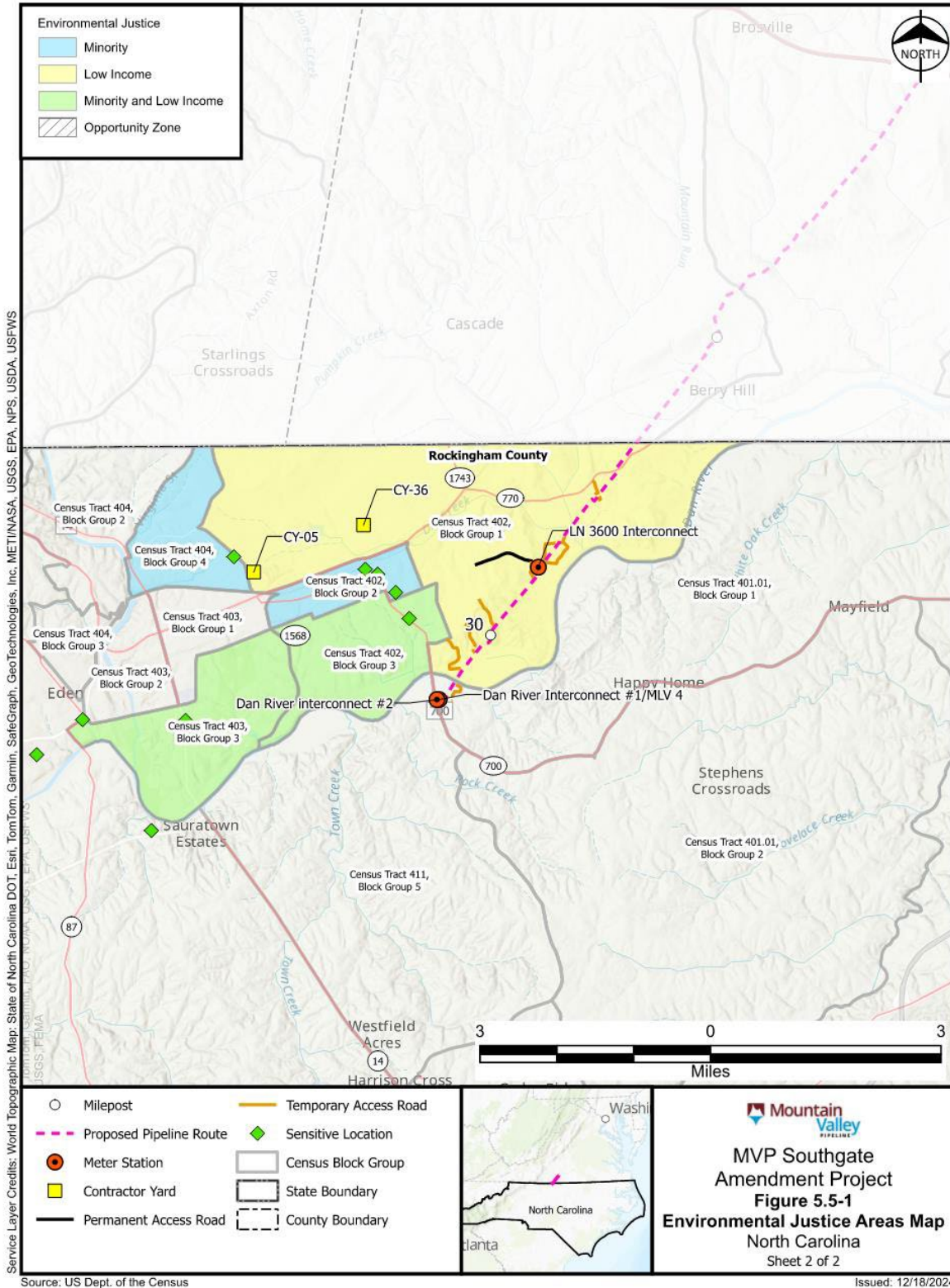
^{a/} Percent is for population 5 years old and younger for census tracts and block groups obtained by ACS 5YR Estimates 2019-2023 Table B01001 (USCB 2024f). Age percentages for the state and county obtained from ACS 5YR Estimates 2019-2023 Table S0101 (USCB 2024g).

Table 5.5-1

Census Tracts and Block Groups within One Mile of the Amendment Project

State/County Block Group/ Census Tract	Total Population	Median Household Income (USD)	Percent														Amendment Project Facilities within Identified Block Groups <u>g/</u>			
			White	African American	Native American and Alaskan Native	Asian	Native Hawaiian and Pacific Islander	Some Other Race	Two or More Races	Hispanic or Latino Origin	Children (5 and under) <u>a/</u>	Elderly (over 65) <u>b/</u>	Non- English at Home <u>c/</u>	Less Than High School Education <u>d/</u>	Minority Population <u>e/</u>	Households Below Poverty Level <u>f/</u>	Pipeline	Mainline Valve Site	Meter Station	Contractor Yard

b/ Percent is only for population over 65 years of age as obtained by ACS 5YR Estimates 2019-2023 Table B01001 (USCB 2024f). Age percentages for the state and county were obtained from ACS 5YR Estimates 2019-2023 S0101 (USCB 2024g).
c/ Percent is only for non-English population aged 5 years and over. (USEPA 2024c, 2024d).
d/ Percent of population 18-24 years old with less than a high school graduate degree for census tract and block groups obtained by ACS 5YR Estimates 2019-2023 Table B15003 (USCB 2024h). Percentages for state and county obtained from ACS 5YR Estimates 2019-2023 Table S1501 (USCB 2024i).
e/ Data fields are shaded for those census block groups that exceed 50 percent, or the percentage of the block group's minority population is at least 10 percent higher than the respective county's percent (USCB 2024d, 2024e).
f/ Data fields are shaded for those census block groups where the percentage of households below the federal poverty level is equal to or greater than that of the county (USCB 2024d, 2024e).
g/ Amendment Project facilities located within 1 mile of block groups.
h/ Amendment Project facility is directly crossed by the block group.
 NA = Not Applicable
 USD = U.S. dollars



5.5.1.4 Minority and Low-Income Populations

Table 5.5-2 provides a summary of the block groups crossed and within one mile of the Amendment Project and identifies block groups that meet the EJ community definition. A total of 22 census block groups are within one mile of the Amendment Project facilities; six of these block groups are within one mile of the proposed contractor yards only. Contractor yards are previously disturbed areas and will only be utilized temporarily during construction.

Table 5.5-2				
Block Group and Census Tracts for Counties Containing the Amendment Project				
County, State Block Group/Census Tract	MP Enter	MP Exit	Total Distance (miles) <u>a/</u>	Collocation Distance (miles)
Pittsylvania, VA				
Block Group 1, Census Tract 105*	0	4.6	4.6	3.2
Block Group 3, Census Tract 105*	4.7	5.2	0.5	0.5
Block Group 1, Census Tract 108.01*	NA	NA	NA	NA
Block Group 1, Census Tract 109	NA	NA	NA	NA
Block Group 2, Census Tract 109	5.3	11	5.7	4.4
Block Group 1, Census Tract 110.02*	13.8	16.3	2.5	1.3
Block Group 2, Census Tract 110.02	11.1	13.1	2.0	0.9
Block Group 3, Census Tract 110.02	13.2	13.7	0.5	1.2
Block Group 1, Census Tract 110.01	18.7	20.3	1.6	0.7
Block Group 2, Census Tract 110.01	16.4	18.6	2.2	1.6
Block Group 1, Census Tract 111	20.4	24.1	3.7	2.4
Block Group 2, Census Tract 111*	24.2	26.7	2.5	1.4
Block Group 1, Census Tract 114	NA	NA	NA	NA
Subtotal Miles of Block Groups Crossed Pittsylvania, VA			25.8	17.6
Subtotal Miles of EJ Block Groups Crossed Pittsylvania, VA			10.1	6.4
Rockingham, NC				
Block Group 1, Census Tract 402*	26.9	30.8	3.9	2.7
Block Group 2, Census Tract 402*	NA	NA	NA	NA
Block Group 3, Census Tract 402*	NA	NA	NA	NA
Block Group 1, Census Tract 401.01	30.9	31.3	0.4	0
Block Group 2, Census Tract 401.01	NA	NA	NA	NA
Block Group 1, Census Tract 403	NA	NA	NA	NA
Block Group 3, Census Tract 403*	NA	NA	NA	NA
Block Group 4, Census Tract 404*	NA	NA	NA	NA
Block Group 5, Census Tract 411	31.3	31.36	0.06	0
Subtotal Miles Block Groups Crossed Rockingham, NC			4.36	2.7
Subtotal Miles of EJ Block Groups Crossed Rockingham, NC			3.9	2.7
Amendment Project Miles of EJ Blocks Crossed			14.0	9.1
Source: USCB 2019-2023 ACS 5-Year Estimates.				
<u>a/</u> Sums may not equal the total of the addends due to rounding. NA indicates the block group is not crossed by the centerline of the pipeline but contains an Amendment Project facility (e.g., aboveground facility, contractor yard).				
* EJ Community.				

Of the 22 block groups, 10 contain EJ communities, as previously defined in Section 5.5.1. Figure 5.5-1 depicts the Amendment Project route, the census block groups assessed, and those block groups that have been identified as containing EJ communities by minority only, low-income only, or both minority and

low-income. Three block groups containing EJ communities, as defined above, are located within one mile of the four meter (interconnect) stations.

While the Amendment Project pipeline route crosses EJ communities, it is largely collocated with existing infrastructure for approximately 64 percent (approximately 9 miles of the total mileage of EJ blocks crossed by the Amendment Project route) of the proposed route within EJ communities. These existing facilities have been in operation for decades within these communities. Notably, no block groups directly crossed by the Amendment Project facilities in Pittsylvania County exceeded the 50 percent threshold for identifying minority populations; therefore, EJ communities that meet the minority criteria in Virginia that contain Amendment Project facilities were identified based on the minority population that is at least 10 percent higher than the respective county's minority percentage (i.e., 1.1 times the county's percentage). In Rockingham County, two block groups exceeded the 50 percent threshold for identifying minority populations. Four block groups containing minority-only EJ communities are located within one mile of the Amendment Project pipeline route, two of which are directly intersected by the Amendment Project facilities.

The three block groups containing low-income-only EJ communities are directly crossed by the Amendment Project Route. Three block groups containing both minority and low-income EJ communities are located within one mile of the Amendment Project pipeline route, including one that is directly crossed by the Amendment Project pipeline.

5.5.1.5 Racial/Ethnic Composition

Table 5.5-1 provides the percentages of the general racial/ethnic compositions for counties and block groups that contain the Amendment Project. In aggregate, the population living within the Amendment Project EJ Analysis Area is predominantly white, with African Americans as the largest minority group. In Pittsylvania County, African American populations range from 3 to 41 percent at the block group level. Three block groups have minority populations exceeding their county averages by 10 percent or more of that county average.

In Rockingham County, African American populations range from 5 to 45 percent at the block group level. Four block groups have minority populations exceeding their county averages by at least 10 percent of that county average.

The third largest ethnic group in the Amendment Project counties was of Hispanic or Latino origin, ranging from approximately 1 to 17 percent. In Pittsylvania County, a total of five block groups had a higher percentage of Hispanic or Latino origin than the county. In Rockingham County, only three block groups had a higher percentage of Hispanic or Latino origin.

5.5.1.6 Non-English-Speaking Groups

Data were taken from the USCB 2018-2022 ACS 5-Year Estimates for language spoken at home (S1601) (USCB 2022). According to the Census, language spoken at home is defined as the language currently used by respondents at home that is either "English only" or a non-English language used in addition to English or in place of English.

Pittsylvania and Rockingham counties each have one block group with greater than 10 percent non-English-speaking populations (Table 5.5-1).

5.5.1.7 Children and Elderly

According to the USCB 2019-2023 ACS 5-Year Estimates and as shown in Table 5.5-1, over five percent of the state population in both Virginia and North Carolina consists of children aged five and under, compared to 4.2 percent in Pittsylvania County, Virginia, and 5.0 percent in Rockingham County, North Carolina. Both Amendment Project counties have more elderly persons (over 65 years old) living in the Amendment Project area compared to their respective state estimates—24.1 percent in Pittsylvania County compared to a Virginia state average of 16.3 percent and 20.8 percent for Rockingham County compared to a North Carolina state average of 16.8 percent. With respect to the block groups, the lowest percentage of people aged five and under living in the Amendment Project area are in Pittsylvania County (0 percent in Block Group 1, Census Tract 105), and the highest percentage is in Rockingham County (10.8 percent in Block Group 2, Census Tract 402). The lowest percentage of people aged 65 and over are located in Rockingham County (9.7 percent in Block Group 4, Census Tract 404), and the highest percentage is in Pittsylvania County (37 percent in Block Group 2, Census Tract 110.02).

5.5.1.8 Public Outreach

To facilitate public involvement and outreach, Mountain Valley has developed a revised Public, Stakeholder, and Agency Participation Plan for the Amendment Project (see Resource Report 1, Appendix 1-G). This plan outlines the commitment to engage actively with stakeholders throughout the life cycle of the Amendment Project and provides the steps Mountain Valley has taken to identify and communicate with stakeholders from the initiation of the Original Certificated Project through the construction and operation of the Amendment Project. Mountain Valley continues to update its project-specific website (www.mvpsouthgate.com) and monitor its toll-free phone line (833-MV-SOUTH) and e-mail (mail@mvpsouthgate.com) systems. Mountain Valley will continue to meet with stakeholders to discuss the ongoing efforts associated with the Amendment Project.

With regard to EJ communities, Mountain Valley has emphasized EJ in the outreach to groups and individuals who have been historically underrepresented in project development processes and, as noted above, identified and engaged with relevant stakeholders in the census tracts in and adjacent to the Amendment Project area. This outreach has included direct engagement and conversation about the project's purpose, scope, and status, as well as the distribution of informational flyers to dozens of businesses, organizations, and churches located near the project area and/or serving minority and economically disadvantaged residents. Mountain Valley has maintained and posted updates to the www.mvpsouthgate.com project-specific website, engaged with state EJ officials, and established relationships with first responders. Mountain Valley has sponsored and attended numerous events and activities benefitting disadvantaged children in the project area in Virginia and North Carolina; provided direct financial assistance and volunteer hours at a soup kitchen in Eden, North Carolina; made in-kind and financial contributions to local welding programs at public educational institutions; and funded need-based scholarships for participants in the Leadership Rockingham (North Carolina) program and students at Danville Community College (Virginia). Mountain Valley is committed to engaging meaningfully with stakeholders, building relationships, and informing the public about our project and our values.

Details regarding EJ community outreach are included as part of the Public, Stakeholder, and Agency Participation Plan in Appendix 1-G.

5.5.2 State Environmental Justice Screening

Although Virginia and North Carolina are still in the process of developing their respective EJ policies, as described further below, Mountain Valley took into consideration those jurisdictions existing policies in completing this EJ analysis.

5.5.2.1 Virginia

Shortly after the FEIS was issued in 2020, Virginia enacted the Virginia Environmental Justice Act (Va. Code 2.2-234 to 2.2-235) (“2020 EJ Act”). The act states, “It is the policy of the Commonwealth to promote EJ and ensure that it is carried out throughout the Commonwealth, with a focus on EJ communities and fenceline communities.” The 2020 EJ Act defines EJ communities to include (1) geographically distinct areas where the “population of color” is greater than the state average and (2) census block groups in which at least 30 percent of the population qualifies as “low income.” The statute defines “low income” as “having an annual household income equal to or less than the greater of (i) an amount equal to 80 percent of the median income of the area in which the household is located, as reported by the Department of Housing and Urban Development, and (ii) 200 percent of the Federal Poverty Level” (Va. Code 22-234). Additionally, in 2020, the state’s Environmental Justice Advisory Council became a permanent advisory body in the executive branch. The Environmental Justice Advisory Council had previously been established in 2017 by Executive Order 73 (and reestablished in 2019 by Executive Order 29).

To date, Virginia has not finalized any regulations or authoritative guidance to implement the 2020 EJ Act or related legislation directing the Virginia Department of Environmental Quality (“VADEQ”) to “further environmental justice... in the regulatory and permitting processes” (Va. Code 10.1-1183(B)(4)). However, VADEQ has taken steps to implement the statutes. In April 2021, VADEQ established an Office of Environmental Justice (“OEJ”) to ensure the fair and meaningful involvement of all people in the development, implementation, and enforcement of environmental laws, regulations, and policies across all VADEQ programs. The OEJ includes a Program Manager and four regional Environmental Coordinators. Further, on May 1, 2023, VADEQ published a draft guidance memorandum to formalize the OEJ’s procedures for incorporating EJ into the agency’s regulatory and permitting decisions. Following a public comment period, VADEQ’s draft EJ guidance remains under internal review and has not been finalized.

To facilitate voluntary EJ efforts, VADEQ maintains an online mapping tool, Virginia EJ Screen+, that identifies areas that meet the 2020 EJ Act’s definition of an EJ community (VDEQ 2024). Mountain Valley evaluated the project using VADEQ’s mapping tool to determine if any previously unidentified communities within one mile of the Amendment Project facilities meet the state’s EJ community definition. VADEQ’s mapping tool did not identify any new census block groups that qualify as EJ communities due to minority populations that were not already identified by the federal screening efforts detailed in Section 5.5.1. However, two additional census block groups would qualify as EJ communities under the 2020 EJ Act’s definition of low-income communities: (1) Block Group 2, Census Tract 110.01 and (2) Block Group 1, Census Tract 111.

5.5.2.2 North Carolina

In 2022, North Carolina’s Governor signed Executive Order No. 246, which directed cabinet agencies to incorporate EJ and equity considerations as they implemented certain climate change-related directives. In October 2023, the governor signed Executive Order 292, which established the Governor’s Environmental Justice Advisory Council (“EJ Council”). The EJ Council is a reestablishment of the Secretary’s

Environmental Justice and Equity Advisory Board, which had earlier been established by the Secretary of the Department of Environmental Quality (“NCDEQ”) in 2018. The mission of the EJ Council is to “advise the Governor and state agencies on incorporating EJ into policies and programming, to provide clarity and consistency to [North Carolina’s] approach to EJ, and to collaborate on, develop, and enhance state strategies to advance EJ” (North Carolina 2023). The EJ Council’s powers include identifying sources of expertise about existing and potential EJ research projects and topics; developing government research projects focused on EJ; developing guidance for state agencies on best practices for identifying EJ communities and for the use of mapping tools and data; providing EJ-related recommendations to the Governor, including with respect to legislation, regulation, and policies; taking a series of actions respecting EJ to be taken across state agencies; and soliciting input from communities with EJ concerns.

Further, under Executive Order No. 292, the EJ Council is required to publish annual reports describing its EJ-related activities and making recommendations for advancing EJ in the state. The first report was published on October 15, 2024, and included recommendations for the state to continue building out its EJ policy, including further development of the state’s mapping tool (North Carolina 2024).

North Carolina launched version 1.0 of the North Carolina Community Mapping System (“NCCMS”) in March 2020. NCCMS incorporated public feedback from a previously released beta version, and the tool was created “to provide North Carolinians with permitting and other environmental information for the purpose of increasing knowledge, understanding, local outreach, and public participation” (North Carolina 2019). NCCMS displays census data for identified areas and incorporates the Environmental Justice Tool, which shows demographic and health information for the selected area. Similar to USEPA’s EJScreen, NCCMS and the embedded Environmental Justice Tool is an information gathering tool that provides certain demographic and environmental information, rather than specifically designating a particular area as an EJ community under state standards. NCDEQ has also implemented an Anonymous Comment Tool, which “allows members of the public to provide anonymous suggestions or complaints about an environmental concern or an incident of discrimination involving an environmental concern.” Mountain Valley has evaluated NCCMS and has not identified any additional block groups that are EJ communities, as defined in Section 5.5. Mountain Valley will continue to coordinate with the NCDEQ and consider state policies and guidelines it develops to address EJ.

5.5.3 Evaluation of Potential Disproportionate and Adverse Environmental Effects on Minority or Low-Income Populations

As discussed above, a review of census data suggests the presence of minority and low-income populations within the Amendment Project EJ Analysis Area. As indicated in Table 5.5-1 and Section 5.5.2, the following 10 census block groups satisfy the criteria for minority and/or low-income populations under federal standards:

1. Block Group 1, Census Tract 105
2. Block Group 3, Census Tract 105
3. Block Group 1, Census Tract 108.01
4. Block Group 1, Census Tract 110.02
5. Block Group 2, Census Tract 111
6. Block Group 1, Census Tract 402
7. Block Group 2, Census Tract 402
8. Block Group 3, Census Tract 402

9. Block Group 3, Census Tract 403
10. Block Group 4, Census Tract 404

Of the 10 EJ communities, four block groups were identified as minority-only EJ communities based on the data meeting FERC thresholds: Block Group 1, Census Tract 108.01; and Block Group 2, Census Tract 111 in Pittsylvania County, Virginia; and Block Group 2, Census Tract 402 and Block Group 4, Census Tract 404 in Rockingham County, North Carolina.

Three block groups are considered low-income-only EJ communities: Block Group 1, Census Tract 105; Block Group 1, Census Tract 110.02 in Pittsylvania County and Block Group 1, Census Tract 402 in Rockingham County.

Three block groups are considered both minority and low-income EJ communities: Block Group 3, Census Tract 105 in Pittsylvania County and Block Group 3, Census Tract 402, and Block Group 3, Census Tract 403 in Rockingham County. However, the construction and operation of the Amendment Project is not expected to result in adverse and disproportionate human health or environmental effects to any of these 10 communities, as discussed below. Additionally, none of the EJ communities referenced is above the 80th percentile nationwide for any air emission-related environmental burden indicator, as explained in more detail in Section 5.5.3.2 below.

5.5.3.1 Impacts on Environmental Justice Communities

The Amendment Project facilities located within EJ communities include portions of the pipeline, four contractor yards, 39 access roads, and two meter (interconnect) stations. A majority of the access roads are existing paved or dirt roads. See discussion below for further details of Amendment Project facilities located within the EJ communities.

Census Tract 105

Two block groups in Census Tract 105 were designated EJ communities. Block Group 1 was designated as an EJ community due to its low-income population, which exceeds the Pittsylvania County low-income percent by over 10 percent of that county average. Approximately 4.6 miles of the pipeline crosses this community. There are six temporary access roads, one meter station, and one contractor yard within this EJ community. These facilities are described below.

Access Roads in Block Group 1

- Access road TA-PI-000 is a temporary access road on private property. It will connect a contractor yard (CY-01) and meet with the pipeline at MP 0.0.
- Access roads TA-PI-001A and TA-PI-001C are existing public roads that originate in Pittsylvania County and will meet the Amendment Project pipeline at approximately MP 0.3. TA-PI-001A is approximately 0.75 miles in length, and TA-PI-001C is approximately 714 feet, which merges with TA-PI-001A. These two parallel access roads are approximately 80 feet apart, converging at the end of TA-PI-001C.
- TA-PI-004 is an existing road that originates from Meaddock Lane in Pittsylvania County, extending onto private property and meeting the pipeline at approximately MP 1.9. TA-PI-004 is approximately 2,900 feet. Meaddock Lane originates from VA-57, extending southeast.

- TA-PI-005 is an existing road that originates from Batterman Road, extends northwest onto private property, and meets the pipeline at approximately MP 2.6.
- TA-PI-006 is an existing dirt road and will meet the pipeline at MP 3.7. This access road is approximately 1290 feet in length. Fairview Road is the public road that leads to this private access road. The access road is positioned approximately 0.5 mile northeast of U.S. Highway 29 (“US-29”). Construction traffic along Fairview Road will occur between US-29 and Davis Road, passing approximately 13 homes, one school, and one church.

Contractor Yard and Meter Station in Block Group 1

- CY-01 at MP 0.0 is an existing, previously disturbed contractor yard that will be used during the construction of the Amendment Project. It is located within the town of Chatham. This contractor yard is positioned approximately 380 feet south of Transco Road and approximately 1.7 miles north of Virginia State Highway 57 (“VA-57”).
- Lambert Interconnect/MLV 1 is a meter station located at MP 0.0, approximately 370 feet southwest of CY-01. These facilities are located on land owned by Mountain Valley and adjacent to an existing Transcontinental Gas Pipe Line Company, LLC (“Transco”) gas facility. Seven residences are along this road to the access roads and facilities.

Block Group 3 was designated as an EJ community due to its percentage of residents who identify as a minority and the percentage of residents living below the poverty level. Approximately 0.5 mile of the pipeline crosses this community. There are two temporary access roads within this EJ community.

Access Roads in Block Group 3

- TA-PI-008 is an existing paved road adjacent to US-29 and is approximately 780 feet in length.
- TA-PI-007 is a temporary access road on private land that connects to TA-PI-008. This access road is approximately 900 feet in length and will meet the Amendment Project pipeline at approximately MP 4.9. There is one home located immediately adjacent to these access roads.

Potential impacts associated with the construction of the pipeline and meter station and the use of these temporary access roads (i.e., traffic, noise, visual, and air quality) are discussed further in the sections below.

Census Tract 108.01

Block Group 1 in Census Tract 108.01 was designated as an EJ community due to its minority population exceeding the county average by over 10 percent of that county average. There is one contractor yard, CY-37, within this EJ community.

CY-37 is a previously disturbed area that will be used during the construction of the Amendment Project pipeline. It is located within the census-designated place of Blairs. CY-37 is positioned approximately 130 feet west of US-29 and is approximately 7.7 acres. The surrounding area is mostly commercial property with gas stations, a concrete supply, and various small businesses. An elementary school and a community soccer club are located directly west of the contractor yard.

Potential impacts associated with the temporary use of this contractor yard (i.e., traffic, noise, visual, and air quality) are discussed further in the sections below.

Census Tract 110.01

Block Group 1 of Census Tract 110.01 was designated as an EJ community due to its percentage of households below the poverty level according to the VADEQ mapping tool (VADEQ 2024). This block group was not designated as EJ according to federal standards.

Approximately 2.3 miles of the pipeline crosses this community. Four temporary access roads are located within this community. No other Amendment Project facilities crossed this community; therefore, all potential impacts from the construction of the Amendment Project will be temporary in this area.

Census Tract 110.02

Block Group 1 of Census Tract 110.02 was designated as an EJ community due to its percentage of households below the poverty level. Approximately 2.5 miles of the pipeline crosses this EJ community. There are two access roads within this EJ community.

- TA-PI-035 is an existing temporary access road on private property that is approximately 1 mile in length. This access road will originate from Whitnell School Road, extending northeast and meeting the Amendment Project pipeline at approximately MP 14.6. One home is located on the private property of this access road, and multiple residential homes are located along Whitnell School Road.
- TA-PI-037A is a new temporary access road on private property that extends approximately 0.2 mile north and south of Mt. Cross Road to the construction right-of-way.

Potential impacts associated with the construction of the pipeline and use of these access roads (i.e., traffic, noise, visual, and air quality) are discussed further in the sections below.

Census Tract 111

Block Group 1 of Census Tract 111 was designated as an EJ community due to its percentage of households below the poverty level according to the VADEQ mapping tool (VADEQ 2024). This block group was not designated as EJ according to federal standards.

Approximately 3.8 miles of the pipeline crosses this community. Five temporary access roads and one new permanent access road are located within this community. No other Amendment Project facilities crossed this community.

Block Group 2 in Census Tract 111 was designated as an EJ community due to its minority population percentage exceeding the county percentage by over 10 percent. Approximately 2.5 miles of the pipeline crosses this EJ community. There are also two temporary access roads within this EJ community.

- TA-PI-066 is an existing temporary access road on private property for 0.4 mile. TA-PI-067 is an existing temporary access road also located on private property. These two roads will connect public access road Berry Hill Road to the construction right-of-way near MP 25.6. The area immediately surrounding the access roads is forested. No houses are in the immediate vicinity.

Potential impacts associated with the construction of the pipeline and use of these temporary access roads (i.e., traffic, noise, visual, and air quality) are discussed further in the sections below.

Census Tract 402

Block Groups 1, 2, and 3 in Census Tract 402 were designated EJ communities. Fourteen access roads, two contractor yards, and one meter station are located within Block Group 1. Two other meter stations are located within 1 mile of Block Groups 1 and 3 (Dan River Interconnect #1 and #2). Two contractor yards are located within 1 mile of Block Groups 2 and 3.

Block Group 1 was designated as an EJ community due to the percentage of households below the poverty level. Approximately 3.9 miles of the pipeline crosses this EJ community. There is one permanent access road and 14 temporary access roads within this community.

Access Roads in Block Group 1

- PA-RO-000 is an existing permanent access road crossing within a rural area for approximately one mile that will connect to the LN 3600 Interconnect to provide permanent access for operation.
- TA-RO-072 is an existing public roadway, Cir Bar D Ranch Road, which is graveled and will provide 0.2 mile of access to the construction right-of-way from Highway 311. The public road will connect to TA-RO-072A through private property, which will provide direct access through private property to the construction right-of-way. TA-RO-72B is an existing temporary access road that is partially graveled and will traverse private property from Cir Bar D Ranch Road and provide direct access to construction work areas.
- TA-RO-075 is a new temporary access road that will traverse private property for approximately 0.5 mile. The road is partially existing as a graveled two-track road, which will allow construction equipment to reach public roadways.
- TA-RO-076 is an existing temporary access road, Willow Oak Drive. This road is largely graveled and will connect to the construction right-of-way.
- TA-RO-077 is an existing temporary access road on private land that will provide 0.5 mile of access through agricultural areas. TA-RO-077A is an approximate 0.5-mile new access road that will connect TA-RO-077 to the construction right-of-way. TA-RO-78 is an existing private roadway, Pineknott Drive. This roadway traverses past an existing agricultural operation.
- TA-RO-079A is an existing temporary access road that is private and will connect the public roadway, 3rd Street, to the existing Transco right-of-way. It will traverse 0.3 mile to connect to temporary access road TA-RO-079, which is private and will connect across the right-of-way to the construction right-of-way.
- TA-RO-080 is an existing private roadway, Cochran Farm Trail Road, which will span 0.3 mile to connect 3rd Street to the construction right-of-way.
- TA-RO-082D is an existing temporary access road that will allow access from Summit Road into CY-05.
- TA-RO-82E is a new temporary entrance road from Summit Road into CY-05.

Meter Station in Block Group 1

- LN3600 Interconnect is a meter station located at MP 28.9. The facility is in proximity to an existing natural gas facility. No residences are located in proximity to this facility.

Contractor Yards in Block Group 1

- Contractor yards CY-05 and CY-36 near MP 30.0 are existing, previously disturbed contractor yards that will be used during the construction of the Amendment Project. They are located within the community of Meadow Summit.

Block Group 2 was designated as an EJ community due to its percentage of residents who identify as a minority. No Amendment Project facilities are in this community; however, two contractor yards, CY-05 and CY-37, are within a mile of this EJ community.

Block Group 3 was designated as an EJ community due to its percentage of residents who identify as a minority and the percentage of households below the poverty level. No Amendment Project facilities are located in this community; however, two contractor yards, CY-05 and CY-37, and two-meter stations, Dan River Interconnect #1 and Dan River Interconnect #2, are within a mile of this EJ community.

Potential impacts associated with the use of these access roads, meter stations, and contractor yards (i.e., traffic, noise, visual, and air quality) are discussed further in the sections below.

Census Tract 403

Block Group 3 in Census Tract 403 was designated as an EJ community due to its percentage of residents who identify as a minority and the percentage of households below the poverty level. No Amendment Project facilities are in this community; however, one contractor yard, CY-05, is within a mile of this EJ community.

Census Tract 404

Block Group 4 in Census Tract 404 was designated as an EJ community due to its percentage of residents who identify as a minority. No Amendment Project facilities are located in this community; however, one contractor yard, CY-05, is within a mile of this EJ community.

5.5.3.2 Air Quality Impacts on EJ Communities

The Amendment Project facilities will be designed in compliance with the national ambient air quality standards, which are protective of human health, including children, the elderly, and sensitive populations.

The Amendment Project will not result in the construction of large aboveground facilities and will, therefore, not include equipment with long-term operational air emissions. The potential air emissions from the Amendment Project and the aboveground facilities are below the thresholds that require a federal or state air permit. Air emissions resulting from the construction of the Amendment Project would be intermittent and temporary. The air quality analysis for the Amendment Project demonstrates that the air quality impacts from construction and operation activities on all populations, including EJ communities, will not be significant.

Additionally, Mountain Valley will implement a variety of measures that will mitigate potential impacts on all nearby communities, including EJ populations. For instance, Mountain Valley will employ proven construction-related practices to control fugitive dust, such as the application of water or other commercially approved dust-control applications on unpaved areas subject to frequent vehicle traffic.

Further, USEPA's EJScreen demonstrates the air quality-related environmental burden indicators in the EJ communities suggest air quality is not a significant concern in any of the 10 EJ communities. Indeed, the

air quality environmental burden indicators that EJScreen evaluates—particulate matter smaller than 2.5 micrometers, ozone, nitrogen dioxide, diesel particulate matter, toxic air releases, and proximity to traffic—are all well below the 80th percentile nationally. USEPA uses the 80th percentile nationally as a screening threshold to evaluate whether a community warrants further analysis for potential EJ concerns. Per the USEPA, communities that are at or above the 80th percentile for an indicator of concern may warrant additional consideration for EJ concerns.

Therefore, the cumulative effect of operating the Amendment Project with other existing and proposed major projects/facilities, which would be regulated by the VADEQ and NCDEQ through those states' air permitting processes and would likely require their own EJ analyses, is not expected to result in significant adverse air impacts. Thus, as a result of the mitigation measures described above and the existing relatively low environmental burden, air quality impacts from the Amendment Project will not result in disproportionately high or adverse effects on EJ communities. See Resource Report 9 for additional details and discussions of air quality impacts.

5.5.3.3 Traffic and Noise Impacts on EJ Communities

As discussed in Resource Report 9, noise levels resulting from construction will vary over time and will depend upon the number and type of equipment operating, the level of operation, and the distance between sources and receptors. Construction of the pipeline will generate noise from heavy machinery and equipment as construction moves in phases along the right-of-way. Sound generated from pipeline construction will be temporary, sporadic, and short-term in any one location along the pipeline route. A horizontal directional drill (“HDD”) will be used to install the pipeline underneath the Dan River and will be in an EJ community on one side of the river in EJ community Block Group 1, Census Tract 402. EJ community Block Group 3, Census Tract 402, is located approximately 1 mile from the Dan River HDD. For HDD crossing sites where the HDD activity sound levels at the noise-sensitive areas are predicted to be greater than FERC’s standard, noise control measures will be implemented during Amendment Project construction. For instance, all engines on power units, gensets, etc., will be fitted with residential-grade exhaust mufflers, temporary barriers, and secondary noise control treatments. Operational noise at meter stations was identified to be in compliance with the FERC criterion noise levels. Meter stations do not emit significant low-frequency noise. Therefore, low-frequency noise-induced vibration from meter stations should have no effect on the EJ communities. As was concluded in the FEIS for the Original Certificated Project, no significant adverse impact from noise is anticipated from the Amendment Project.

Adverse construction-related impacts will likely include increases in local traffic and noise, as well as fugitive dust, and could result in temporary delays at some highway crossings. These impacts will be temporary and localized and are not expected to be significant. Further, the proximity to the traffic environmental indicator is far below the 80th percentile nationally for all EJ communities, with only two EJ communities above the 50th percentile.

The presence of existing infrastructure must be considered when evaluating relevant Amendment Project impacts, including EJ. When collocated with existing infrastructure or utility corridors, the incremental impacts of an additional pipeline are significantly less compared to routing through a greenfield area. Collocation minimizes potential impacts on the general population and EJ communities alike. Mountain Valley developed the Amendment Project pipeline route to collocate to the maximum extent practicable and avoid unnecessary greenfield impacts. Within EJ communities, the Amendment Project

pipeline route is collocated for approximately 20 miles, resulting in 20 fewer miles of greenfield impacts, including greenfield impacts on EJ communities.

5.5.3.4 Hazardous Waste Impacts on EJ Communities

The Amendment Project facilities will also be designed, constructed, operated, and maintained in accordance with or to exceed the U.S. Department of Transportation Pipeline and Hazardous Materials Safety Administration minimum federal safety standards in 49 Code of Federal Regulations 192 (see Resource Report 11 for more details). These regulations, which are intended to protect the public and to prevent natural gas facility accidents and failures, apply to all areas along the proposed pipeline routes regardless of the presence or absence of minority or low-income populations. Not only will the Amendment Project meet or exceed these stringent regulations, but all the EJ communities are far below the 80th percentile nationally for proximity to hazardous waste facilities.

5.5.3.5 Visual Impacts on EJ Communities

As described in the FEIS for the Original Certificated Project, construction impacts to visual resources will be project-wide and will not be concentrated in any single area or community. After construction, all disturbed areas associated with pipeline construction will be restored, and areas outside of the permanent right-of-way will be returned to preconstruction conditions to the extent practicable. In addition, given that views of the meter stations and valve sites will be limited and there are no direct views of the sites from residences, construction of the aboveground facilities is not expected to result in any significant permanent impacts on visual resources. Contractor yards will be temporarily located at existing, previously disturbed laydown yards. Therefore, the Amendment Project will not have significant visual impacts on EJ communities in the Amendment Project area.

5.5.3.6 Sensitive Receptors

Sensitive receptors include hospitals, schools, daycare facilities, churches, assisted living facilities, and convalescent facilities where the occupants are more susceptible to the adverse effects of exposure to contaminants and pollutants.

Sensitive receptor information was obtained from publicly available sources and outreach with surrounding communities. Mountain Valley evaluated these areas and conducted outreach directly with the communities through methods such as public meetings, advisory committees, and community liaisons. Input gathered from these outreach efforts was considered as part of the design of the Amendment Project, facilities, and construction methods. Details regarding Mountain Valley's community outreach are provided in the Public, Stakeholder, and Agency Participation Plan.

Mountain Valley conducted ongoing outreach with community members and local officials, businesses, churches, and other non-governmental associations to share information about the revised scope of the Amendment Project. Mountain Valley distributed updated project information prioritizing locations with significant populations of economically disadvantaged and minority residents. Detailed information regarding outreach performed to community entities is provided in the Public, Stakeholder, and Agency Participation Plan in Appendix 1-G.

5.5.3.7 Socioeconomics Conclusions

Similar to the conclusions in the FEIS for the Original Certificated Project, impacts on socioeconomic factors associated with the construction and operation of the proposed Amendment Project are expected to be minor. The limited workforce and short duration of construction will result in a temporary but minor impact on the population, local unemployment levels, and housing available. The Amendment Project does not include any significant permanent aboveground facilities or major operational air emissions. The proposed permanent aboveground facilities associated with the Amendment Project are minor and will not disturb over one acre of land per site and are situated adjacent to other existing facilities.

Potential benefits may also be seen to the state and local economics by creating a short-term stimulus to the affected areas through payroll expenditures, local purchases of consumables, project-specific materials, room rentals, and sales taxes. Overall, the Amendment Project will deliver substantial economic benefits to both states. During its construction phase, the Amendment Project will generate approximately \$4.2 million in Gross Regional Product, create up to 990 jobs, and contribute \$10.8 million in state and local tax revenues. In its first full year of operation (2029), it will add \$4.2 million to the Gross Regional Product, support 50 jobs, and generate \$1.8 million in tax revenues. Additionally, the Amendment Project will offer significant residential fuel cost savings and enhance the economic stability of local manufacturing sectors by providing a reliable natural gas supply.

The Amendment Project will not have disproportionate and adverse effects on EJ communities. As highlighted in Table 5.5-1, 10 EJ communities will be crossed by the Amendment Project pipeline or are located within one mile of the Amendment Project pipeline, aboveground facilities, or contractor yards. The Amendment Project is largely collocated with other existing infrastructure across the majority of its pipeline route, including in EJ communities and at the Lambert and LN 3600 Interconnect facilities. Mountain Valley has limited the number of required permanent access roads, and only two permanent access roads are located in EJ communities. Temporary access roads and contractor yards will be utilized during construction and otherwise restored to their original uses upon the completion of construction. Further, mitigation measures will be implemented during the Amendment Project's construction, further reducing potential impacts on nearby communities. Therefore, adverse environmental effects on surrounding communities, including EJ communities, will be minimized and/or mitigated, as applicable, and will not be significant. Engagement with the communities crossed by the Amendment Project began in 2018 and has continued as described in the Public, Stakeholder, and Agency Participation Plan.

In conclusion, the construction and operation of the Amendment Project will not cause disproportionately high and adverse human health, environmental, or socioeconomic impacts on any racial, ethnic, or socioeconomic group or on block groups that meet the EJ criteria.

5.6 REFERENCES

- AARoads. 2024. U.S. 29. Available at: <https://www.aaroads.com/guides/us-029-va/>. Accessed August 2024.
- American Hospital Directory. 2024a. Individual Hospital Statistics for North Carolina. Available at: https://www.ahd.com/states/hospital_NC.html. Accessed August 2024.
- American Hospital Directory. 2024b. Individual Hospital Statistics for Virginia. Available at: https://www.ahd.com/states/hospital_VA.html. Accessed August 2024
- Amtrak. 2022. The Amtrak Network. Available at: <https://www.amtrak.com/content/dam/projects/dotcom/english/public/documents/Maps/Amtrak-System-Map-020923.pdf>. Accessed August 2024.
- Bureau of Labor Statistics. 2024a. Table 1. Civilian Labor Force (June 2024 preliminary) by State and Selected Area, Seasonally Adjusted. Available online at: <https://www.bls.gov/news.release/laus.t01.html>. Accessed July 2024.
- Bureau of Labor Statistics. 2024b. Labor Force Data by County, 2023 Annual Averages for Counties. Available at: <https://www.bls.gov/lau/#cntyaa>. Accessed July 2024.
- Carolinas Fire Page. 2024. Available at: http://www.carolinasfirepage.com/members/nc_ctys.html#ala. Accessed August 2024.
- Economic Development Partnership of North Carolina. 2024. Infrastructure. Available at: <https://edpnc.com/why-north-carolina/infrastructure/>. Accessed August 2024.
- EIG. 2024. Opportunity Zones. Available at: <https://eig.org/opportunityzones>. Accessed August 2024.
- Experience Danville, Pittsylvania County. 2024. Stay. Available at: <http://www.experiencedpc.com/stay>. Accessed July 2024.
- Federal Energy Regulatory Commission. 2017. Guidance Manual for Environmental Report Preparation. February 2017.
- Federal Energy Regulatory Commission. March 25, 2022. Order Issuing Certificate, Iroquois Gas Transmission System, L.P. Docket No. CP20-48-000; 178 FERC ¶ 61,200.
- Federal Energy Regulatory Commission. April 21, 2023. Order on Remand, Texas LNG Brownsville LLC. Docket No. CP16-116-002; 183 FERC ¶ 61,047.
- FTI Consulting, Inc. 2024. Economic Benefits of the MVP Amendment Project in Virginia and North Carolina.
- Go Camping America. 2024. Available at: <http://www.gocampingamerica.com/>. Accessed July 2024.
- Google. 2024. Google Maps. Available at: <https://www.google.com/maps>. Accessed July 2024.
- HotelMotels.info. 2024. Available at: <http://www.hotelmotels.info/>. Accessed July 2024.

- Internal Revenue Service. 2024. Opportunity Zones Frequently Asked Questions. Available at: <https://www.irs.gov/newsroom/opportunity-zones-frequently-asked-questions>. Accessed September 2024.
- LEAD. 2024. North Carolina Employment Projection 2021-2030. North Carolina Department of Commerce, Labor and Economic Analysis Division. Available at: <https://www.commerce.nc.gov/north-carolina-employment-projections-2021-2030/open>. Accessed August 2024.
- North Carolina Opportunity Zones Program. 2018. Available at: <https://public.nccommerce.com/oz/>. Accessed August 2024.
- North Carolina. 2019. Community Mapping System and Environmental Justice Tool (Version 1.0). Available at: <https://www.deq.nc.gov/ej/nccms/deq-nc-communitymappingsystemej-tool-1final/download>. Accessed January 2025.
- North Carolina. 2023. Executive Order No. 292. Available at: <https://governor.nc.gov/executive-order-no-292/open>. Accessed January 2025.
- North Carolina. 2024. Governor’s Environmental Justice Advisory Council Final Report. Available at: <https://www.ejhub.nc.gov/documents/governors-environmental-justice-advisory-council-final-report/open>. Accessed January 2025.
- North Carolina Department of Public Safety. 2024. Law Enforcement. Available at: <https://www.ncdps.gov/our-organization/law-enforcement>. Accessed August 2024.
- North Carolina Environmental Justice Network. 2024. About. Available at: <http://www.ncejn.org/>. Accessed August 2024.
- North Carolina Department of Revenue. 2024. Sales and Use Tax Rates Effective July 1, 2024. Available at: <https://www.ncdor.gov/taxes-forms/sales-and-use-tax/sales-and-use-tax-rates-other-information/sales-and-use-tax-rates-effective-july-1-2024>. Accessed August 2024.
- Pittsylvania County. 2024a. About Pittsylvania County. Available at: <https://www.pittsylvaniacountyva.gov/community/about-pittsylvania-county>. Accessed August 2024.
- Pittsylvania County. 2024b. EMS Services. Available at: <https://www.pittsylvaniacountyva.gov/government/departments/public-safety/ems-services>. Accessed August 2024.
- Pittsylvania County. 2024c. Public GIS Viewer. Available at: <https://experience.arcgis.com/experience/72964533b5b14058835193306c7a33bc/>. Accessed August 2024.
- Pittsylvania County. 2024d. FY 24 Budget. Available at: <https://www.pittsylvaniacountyva.gov/government/budget-and-finance/adopted-budgets/fy-24-budget>. Accessed August 2024.
- Pittsylvania County Schools. 2024. Available at: <https://www.pcs.k12.va.us/>. Accessed August 2024.
- Pittsylvania County Sheriff. 2024. Available at: <https://www.pittsylvaniacountyva.gov/152/Sheriff>. Accessed August 2024.

- Projections Managing Partnership. 2024. Long-term Projections (2022-2032). U.S. Department of Labor. Available at: <https://projectionscentral.org/longterm>. Accessed August 2024.
- Rockingham County. 2024. FY24 Adopted Budget. Available at: <https://www.rockinghamcountync.gov/files/documents/2023-24AdoptedBudgetDocument1358042458061523PM.pdf>. Accessed November 2024.
- Rockingham County Schools. 2024. Available at: <https://www.rock.k12.nc.us/>. Accessed August 2024.
- Rockingham County Sheriff. 2024. Available at: <https://rockinghamsheriff.com/>. Accessed August 2024.
- Rockingham County. 2024. GIS Maps. Available at: <https://www.webgis.net/nc/Rockingham/>. Accessed August 2024.
- RV Clubs. 2024. Available at: <http://www.rv-clubs.us/>. Accessed August 2024.
- Secretary of Natural and Historic Resources. 2024. Environmental Justice. Available at: <https://www.naturalresources.virginia.gov/initiatives/advisory-council-on-environmental-justice/>. Accessed November 2024.
- USA Fire & Rescue. 2024. Available at: <https://www.usafireandrescue.com/>. Accessed August 2024.
- U.S. Census Bureau. 2020. URBAN AND RURAL. Decennial Census, DEC 118th Congressional District Summary File. Available at: <https://data.census.gov/table/DECENNIALCD1182020.H2?q=urban+and+rural>. Accessed August 2024.
- U.S. Census Bureau. 2022. Languages Spoken at Home. American Community Survey, ACS 5-Year Estimates Subject Tables, Table S2501. Available at: <https://data.census.gov/table/ACSST5Y2022.S1601?q=S1601&g=050XX00US51143>. Accessed August 2024.
- U.S. Census Bureau. 2023a. Urban and Rural. Available at: <https://www.census.gov/programs-surveys/geography/guidance/geo-areas/urban-rural.html>. Accessed August 2024.
- U.S. Census Bureau. 2023b. County-level 2020 Census Urban and Rural Information for the U.S., Puerto Rico, and Island Areas sorted by state and county FIPS codes. Available at: <https://www.census.gov/programs-surveys/geography/guidance/geo-areas/urban-rural.html>. Accessed August 2024.
- U.S. Census Bureau. 2024a. Quick Facts United States. Available at: <https://www.census.gov/quickfacts/fact/table/US/PST045222>. Accessed December 2024.
- U.S. Census Bureau. 2024b. Selected Economic Characteristics. American Community Survey, ACS 5-Year Estimates Data Profiles, Table DP03, 2022. Available at: https://data.census.gov/table/ACSDP5Y2023.DP03?q=Selected%20Economic%20Characteristics&g=040XX00US37,51_050XX00US37157,51143. Accessed December 2024.
- U.S. Census Bureau. 2024c. Selected Housing Characteristics." American Community Survey, ACS 5-Year Estimates Data Profiles, Table DP04, 2023. Available online at: https://data.census.gov/table/ACSDP5Y2022.DP04?g=040XX00US51_050XX00US51143. Accessed December 2024.

- U.S. Census Bureau. 2024d. Poverty Status in the Past 12 Months by Household Type by Age of Household. ACS-5 Year Estimates 2019-2023 Subject Table B17017. Available at: <https://api.census.gov/data/2023/acs/acs5>. Accessed December 2024.
- U.S. Census Bureau. 2024e. Hispanic or Latino Origin by Race. ACS-5 Year Estimates 2019-2023 Subject Table B03002. Available at: <https://api.census.gov/data/2023/acs/acs5>. Accessed December 2024.
- U.S. Census Bureau. 2024f. Sex by Age. ACS-5 Year Estimates 2019-2023 Subject Table B01001. Available at: <https://api.census.gov/data/2023/acs/acs5>. Accessed December 2024.
- U.S. Census Bureau. 2024g. Age and Sex. ACS-5 Year Estimates 2019-2023 Subject Table S01001. Available at: <https://api.census.gov/data/2023/acs/acs5>. Accessed December 2024.
- U.S. Census Bureau. 2024h. Educational Attainment for the Population 25 Years and Over. ACS-5 Year Estimates 2019-2023 Subject Table B15003. Available at: <https://api.census.gov/data/2023/acs/acs5>. Accessed December 2024.
- U.S. Census Bureau. 2024i. Educational Attainment for the Population 25 Years and Over. ACS-5 Year Estimates 2019-2023 Subject Table S1501. Available at: <https://api.census.gov/data/2023/acs/acs5>. Accessed December 2024.
- U.S. Department of Commerce. 2020. Combined Statistical Area of the United States and Puerto Rico (March 2020). Economics and Statistics Administration, U.S. Census Bureau. Available at: https://www2.census.gov/geo/maps/metroarea/us_wall/Mar2020/CSA_WallMap_Mar2020.pdf. Accessed August 2024.
- U. S. Environmental Protection Agency. 2024a. Environmental Justice Tribes and Indigenous Peoples. Available at: <https://www.epa.gov/environmentaljustice/environmental-justice-tribes-and-indigenous-peoples>. Accessed August 2024.
- U.S. Environmental Protection Agency. 2024b. Environmental Justice Showcase Communities. Available at: <https://www.epa.gov/environmentaljustice/environmental-justice-showcase-communities-region>. Accessed August 2024.
- U.S. Environmental Protection Agency. 2024c. Environmental Justice Screening and Mapping Tool. Version 2.3. Available at: <https://ejscreen.epa.gov/mapper/>. Accessed August 2024.
- U.S. Environmental Protection Agency. 2024d. Overview of Socioeconomic Indicators in EJScreen. EJScreen: Environmental Justice Screening and Mapping Tool. Available at: <https://www.epa.gov/ejscreen/overview-socioeconomic-indicators-ejscreen>. Accessed August 2024.
- U.S. Environmental Protection Agency. 2024e. Environmental Justice. Available at: <https://www.epa.gov/environmentaljustice>. Accessed January 2025.
- U.S. Department of Agriculture. 2022a. Pittsylvania County, Virginia. Census of Agriculture 2022 County Profiles. Available at: https://www.nass.usda.gov/Publications/AgCensus/2022/Online_Resources/County_Profiles/Virginia/cp51143.pdf. Accessed August 2024.

- U.S. Department of Agriculture. 2022b. Virginia. Census of Agriculture 2022 State Profiles. Available at: https://www.nass.usda.gov/Publications/AgCensus/2022/Online_Resources/County_Profiles/Virginia/cp99051.pdf. Accessed August 2024.
- U.S. Department of Agriculture. 2022c. Rockingham County, North Carolina. Census of Agriculture 2022 County Profiles. Available at: https://www.nass.usda.gov/Publications/AgCensus/2022/Online_Resources/County_Profiles/North_Carolina/cp37157.pdf. Accessed August 2024.
- U.S. Department of Agriculture. 2022d. North Carolina. Census of Agriculture 2022 State Profiles. Available at: https://www.nass.usda.gov/Publications/AgCensus/2022/Online_Resources/County_Profiles/North_Carolina/cp99037.pdf. Accessed August 2024.
- Virginia Beach Department of Economic Development. 2024. Virginia Beach. Available at: <https://www.yesvirginiabeach.com/>. Accessed August 2024.
- Virginia Department of Agriculture and Consumer Services. 2022. The Economic Impact of Virginia's Agriculture and Forest Industries, Weldon Cooper Center for Public Service, University of Virginia, 2022. Available at: <https://www.vdacs.virginia.gov/pdf/weldoncooper.pdf>. Accessed August 2024.
- Virginia Department of Environmental Quality. 2023. Guidance Memo No. 23-XXX – Environmental Justice in the Permitting Process. Available at: <https://www.deq.virginia.gov/home/showpublisheddocument/17431/638144773847470000>. Accessed August 2024.
- Virginia Department of Environmental Quality. 2024. VA EJScreen+ and Overview. Available at: <https://geohub-vadeq.hub.arcgis.com/pages/v-a-e-j-screen>. Accessed November 2024.
- Virginia Tourism Corporation. 2023a. Economic Impact of Visitors in Virginia 2022. Available at: <https://www.vatc.org/wp-content/uploads/2023/08/Virginia-Tourism-Economic-Impact-2022.pdf>. Accessed August 2024.
- Virginia Tourism Corporation. 2023b. 2022 Economic Impact of Virginia's Tourism. Available at: <https://www.vatc.org/wp-content/uploads/2023/08/2022-State-Level-EI-Highlights.pdf>. Accessed August 2024.
- Virginia Department of Housing and Community Development. 2024. Opportunity Zones. Available at: <https://www.dhcd.virginia.gov/opportunity-zones-oz>. Accessed August 2024.
- Virginia. 2024. Virginia's Racing Region. Available at: <https://www.virginia.org/regions/SouthernVirginia/>. Accessed August 2024.
- Virginia Department of Taxation. 2024. Retail Sales and Use Tax. Available at: <https://tax.virginia.gov/retail-sales-and-use-tax>. Accessed August 2024.
- Visit Rockingham County. 2024. Places to Stay. Available at: <https://visitrockinghamcountync.com/places-to-stay/#/>. Accessed August 2024.
- Visit North Carolina. 2023. 2022 County Level Visitor Expenditures by Total Expenditures. Available at: <https://partners.visitnc.com/contents/sdownload/73488/file/2022+County+Level+Visitor+Expenditures+by+Total+Expenditures.pdf>. Accessed August 2024.

Visit North Carolina. 2024a. Visit North Carolina. Available at: <https://www.visitnc.com/>. Accessed August 2024.

Visit North Carolina. 2024b. Impact of Domestic and International Travel on North Carolina, 2017 – 2023. Available at: <https://partners.visitnc.com/contents/sdownload/74412/file/2023-Statewide-Spending-by-Sector.pdf>. Accessed August 2024.

Virginia State Police. 2024. Annual Report. Available at: http://www.vsp.virginia.gov/Annual_Report.shtm. Accessed August 2024.

West Piedmont Planning District Commission. 2024. Resource Links. Available at: <https://westpiedmontpdc.org/transportation-links/>. Accessed August 2024.

MVP Southgate Amendment Project

Docket No. CP25-XX-000

Resource Report 5

Appendix 5-A

**Economic Benefits of the Amendment Project
in Virginia and North Carolina**



Economic Benefits of MVP Southgate to Virginia and North Carolina – Final Draft

This report details the benefits MVP Southgate will deliver to the state and local economies of Virginia and North Carolina.

— Table of Contents

Executive Summary..... 1

Introduction 2

Economic Benefits of the MVP Southgate..... 6

Summary 18

Appendix I: County Economic and Energy Profiles 19

Pittsylvania County, Virginia 19

Danville, Virginia 24

Rockingham, North Carolina 29

DISCLAIMER

The analysis and findings expressed herein are those of the author(s) and not necessarily the views of FTI Consulting, Inc., its management, its subsidiaries, its affiliates, or its other professionals.

Principal Authors:

Ken Ditzel

Susana Reyes

Executive Summary

Mountain Valley Pipeline, LLC (“Mountain Valley”) is developing the MVP Southgate project, a proposed 30-inch diameter natural gas pipeline system that would span approximately 31 miles from Virginia into North Carolina. The project is estimated to cost approximately \$370 million, and the targeted completion timing for the project is mid-2028.

The construction and operational spending on the MVP Southgate project, along with the ad valorem taxes generated, will produce economic benefits to Virginia and North Carolina. Table 1 below presents the cumulative economic benefits during construction, and Table 2 below presents the economic benefits in 2029 – the first full year of operation.

Table 1: Cumulative Economic Benefits During Construction, 2024–2028











	Metric	Virginia	North Carolina	Total
	Gross Regional Product	\$80.1 million	\$23.8 million	\$103.9 million
	Peak Employment (2028)	770	220	990
	Labor Income	\$58.4 million	\$17.0 million	\$75.4 million
	Average Annual Labor Income	\$65,000	\$62,500	\$64,400
	State and Local Tax Revenues	\$8.8 million	\$2.0 million	\$10.8 million

Table 2: Economic Benefits in First Full Calendar Year of Operation, 2029

	Metric	Virginia	North Carolina	Total
	Gross Regional Product	\$3.3 million	\$0.9 million	\$4.2 million
	Employment	40	10	40
	Labor Income	\$2.4 million	\$0.7 million	\$3.1 million
	Average Annual Labor Income	\$63,700	\$61,700	\$63,300
	State and Local Tax Revenues	\$1.4 million	\$0.4 million	\$1.8 million

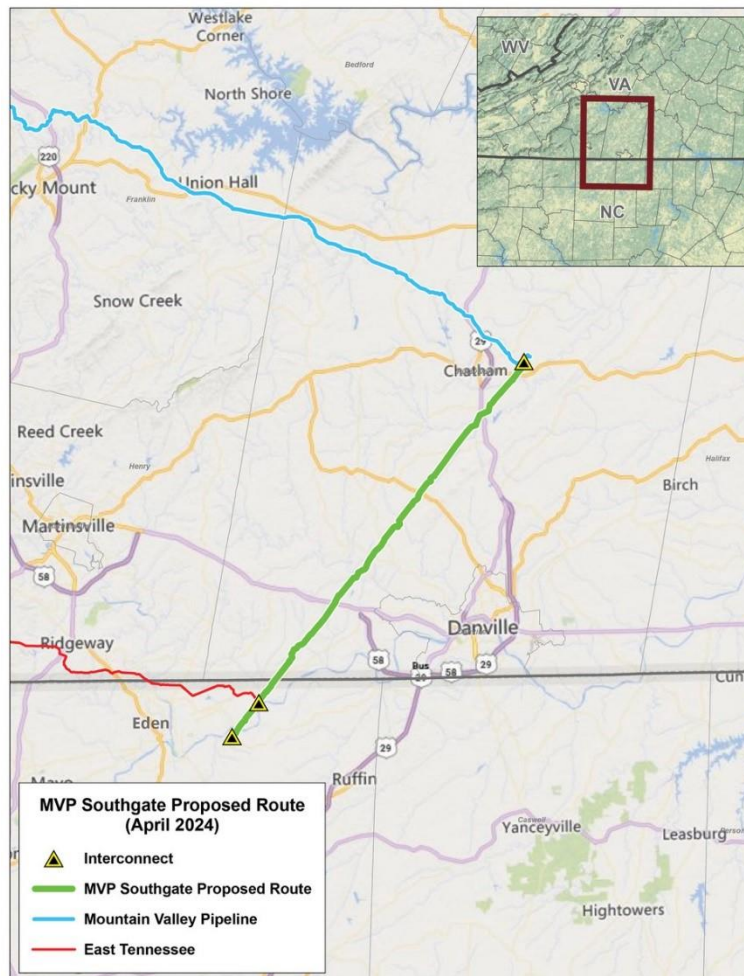
Included in the State and Local Tax Revenues in Table 2 above are approximately \$1.5 million in ad valorem taxes that Mountain Valley anticipates paying annually, on average, over the first 10 years of the project’s operations.

Introduction

Project Background

The MVP Southgate project is a 30-inch diameter underground natural gas pipeline that would span approximately 31 miles from Pittsylvania County, Virginia, to Rockingham County, North Carolina as shown below in Figure 1.¹ The pipeline will be regulated by the Federal Energy Regulatory Commission (“FERC”).

Figure 1: Proposed MVP Southgate Pipeline Route



The pipeline will receive natural gas through an interconnection with the Mountain Valley Pipeline in Pittsylvania County, Virginia, pass through the county and into Rockingham County, North Carolina, where it will interconnect with the East Tennessee Natural Gas, Piedmont Gas, and PSNC Energy

¹ The MVP Southgate project would be constructed and owned by Mountain Valley Pipeline, LLC, a joint venture in which the primary partners are EQM Midstream Partners and NextEra US Gas Assets, LLC.

systems. The MVP Southgate's 550,000 Dth/day capacity is fully subscribed under long-term contracts with PSNC Energy and Duke Energy, which will use the natural gas to meet public demand for residential and business uses and electricity generation. The contracts are for 20-year terms (subject to two potential five-year extensions).²

Mountain Valley has retained FTI Consulting, Inc. (“FTI”) to examine the MVP Southgate project’s potential economic benefits along three areas: (1) economic growth and employment resulting from construction expenditures, (2) operational benefits in terms of jobs created and ad valorem taxes paid by the MVP Southgate project owners, and (3) direct gas-use opportunities that would result within each state.

Approach

Construction Economic Impacts and Job Creation Benefits

The IMPLAN model was applied to estimate the economic impact and jobs created from construction activities in Virginia and North Carolina. The IMPLAN model is a general input-output modeling software and data system that tracks the movement of money through an economy, looking at linkages between industries along the supply chain, to measure the cumulative effect of spending in terms of job creation, income, production, and taxes. The IMPLAN data sets represent all industries within the regional economy – rather than extrapolating from national averages – and are derived primarily from data collected by federal agencies.³

The economic impacts that IMPLAN calculates is segmented by direct impacts, indirect impacts, and induced impacts, defined as follows:

- **Direct impacts:** the economic activity resulting from the MVP Southgate project’s capital costs spent on industries residing in Virginia and North Carolina. These are the industries that provide the “direct” materials, construction labor, construction management, and technical services (e.g., engineering and design, surveying, and permitting) for the project. This is the first order impact of the MVP Southgate project expenditures within the two states.
- **Indirect impacts:** the economic activity resulting from the “direct” industries spending a portion of their revenues on goods and services provided by their supply chain in Virginia and North Carolina. These supply chain industries represent the second order or ‘indirect’ impacts of the MVP Southgate project expenditures in Virginia and North Carolina.
- **Induced impacts:** the economic activity resulting from the spending of the income earned by employees within the “direct” and “indirect” industries. The benefactors of induced

² Mountain Valley Pipeline, LLC letter to FERC, December 29, 2023, p. 1.

³ <https://implan.com/>

impact are primarily consumer-related businesses such as retail stores, restaurants, and personal service industries. These 'induced' impacts represent the third order impact.

Through the direct, indirect, and induced impact calculations, IMPLAN provides the economic ripple effect, or multiplier, that tracks how each dollar of input, or direct spending, cycles through the economy to suppliers and ultimately to households.

The first step of the IMPLAN process was to collect the estimate for state-only spending for each of the major project cost categories. These categories include the following:

- Construction and commissioning services
- Land and right-of-way acquisitions
- Legal services
- Meters and regulator devices
- Pipeline Materials
- Technical services such as engineering design, survey, and permitting

From 2024–2028, Mountain Valley anticipates spending \$82 million and \$21 million in Virginia and North Carolina, respectively, of the project's \$273 million in construction costs during that period. Total construction costs, which includes construction-related expenditures on the project from 2018 to 2023, 2024 to 2028, and post-construction related costs during the first full calendar year of operation (2029), are expected to be \$370 million, excluding allowance for funds used during construction.

Expenditures were then assigned to one of more than 500 IMPLAN economic sectors as inputs to the model. The model was then run from 2024 to 2028 to provide the following direct, indirect, and induced economic impacts:

- **GRP:** an industry's value of production over the cost of purchasing the goods and services required to make its products. GRP includes wages and benefits paid to employees and profits earned by self-employed individuals, monies collected by industry that are not paid into operations (profits, capital consumption allowance, payments for rent, royalties, and interest income), and all payments to the government (excise taxes, sales taxes, customs duties) with the exception of payroll and income taxes.
- **Employment Contributions:** direct, indirect, and induced annual average jobs for full-time, part-time, and seasonal employees and self-employed workers.
- **State, Local, and Federal Taxes:** payments to government that represent employer collected and paid social security taxes on wages, excise taxes, sales taxes, customs duties, property taxes, severance taxes, personal income taxes, corporate profits taxes, and other taxes.

- **Labor Income:** the wages and benefits paid to wage and salary employees and profits earned by self-employed individuals. Labor income demonstrates a complete picture of the income paid to the entire labor force within the model.

Operational Benefits

During the first full calendar year of operations (2029), Mountain Valley expects to spend \$8.4 million on post-construction activities, such as reclamation and monitoring. Of this amount, Mountain Valley plans on spending \$3.4 million in Virginia, \$800,000 in North Carolina, and \$4.2 million in the rest of the U.S. Expenditures were assigned to IMPLAN economic sectors, and the model was then run to provide the direct, indirect, and induced economic impacts.

Additionally, MVP Southgate will generate ad valorem tax revenues for the counties and municipalities in Virginia and North Carolina. Mountain Valley provided FTI with estimated ad valorem tax revenues based upon a cost-based valuation for the first three years of operation and a mix of income-based and cost-based valuation for the next seven years. The estimated ad valorem tax revenues considered the number of miles the MVP Southgate project would traverse in each county, the various county and municipal tax rates, the project cost and depreciation schedule, and the expected project income.

Direct-Use Benefits

To estimate the direct impact of fuel-switching for households, the following data were used:

- The number of households by county or city that consumed propane and fuel oil/kerosene for space heating in 2020 according to the U.S. Census Bureau.
- The average annual household site end-use consumption by fuel type for the South Atlantic census region according to the Energy Information Administration (“EIA”).
- The percentage of urban populations by county or city according to the U.S. Census Bureau
- Annual average end-use prices by fuel type in 2023 according to the EIA.

The total annual propane and fuel oil/kerosene consumption and costs for space heating were then calculated for each county and city. These total costs were then compared to the applicable amount of natural gas consumption and costs required to replace propane and fuel oil/kerosene to determine the potential savings (i.e., direct-use benefits).

Economic Benefits of the MVP Southgate

Construction Benefits

From 2024 to 2028, the MVP Southgate project owners plan to spend a total of \$273 million on goods and services on constructing the pipeline, spending \$82 million and \$21 million of this total in Virginia and North Carolina, respectively. The project owners plan to spend the remaining \$171 million outside Virginia and North Carolina. The combined \$103 million in spending in Virginia and North Carolina would translate into job creation and economic growth for both states, as shown below in Table 3.

Table 3: Cumulative Economic Benefits During Construction in Virginia and North Carolina, 2024–2028

Economic Indicator	Virginia	North Carolina	Total
GRP	\$80.1 million	\$23.8 million	\$103.9 million
Peak Employment (2028)	770	220	990
Labor Income	\$58.4 million	\$16.9 million	\$75.3 million
Average Annual Labor Income	\$65,000	\$62,500	\$64,400
State and Local Tax Revenues	\$8.0 million	\$2.0 million	\$10.8 million

As shown above in Table 3, the construction of MVP Southgate would generate almost \$104 million in additional GRP during the five-year construction period. Figure 2 and Figure 3 below show the composition of MVP Southgate capital expenditures by category for Virginia and North Carolina, respectively.

Figure 2: MVP Southgate Capital Expenditures in Virginia by Major Spending Category, 2024–2028

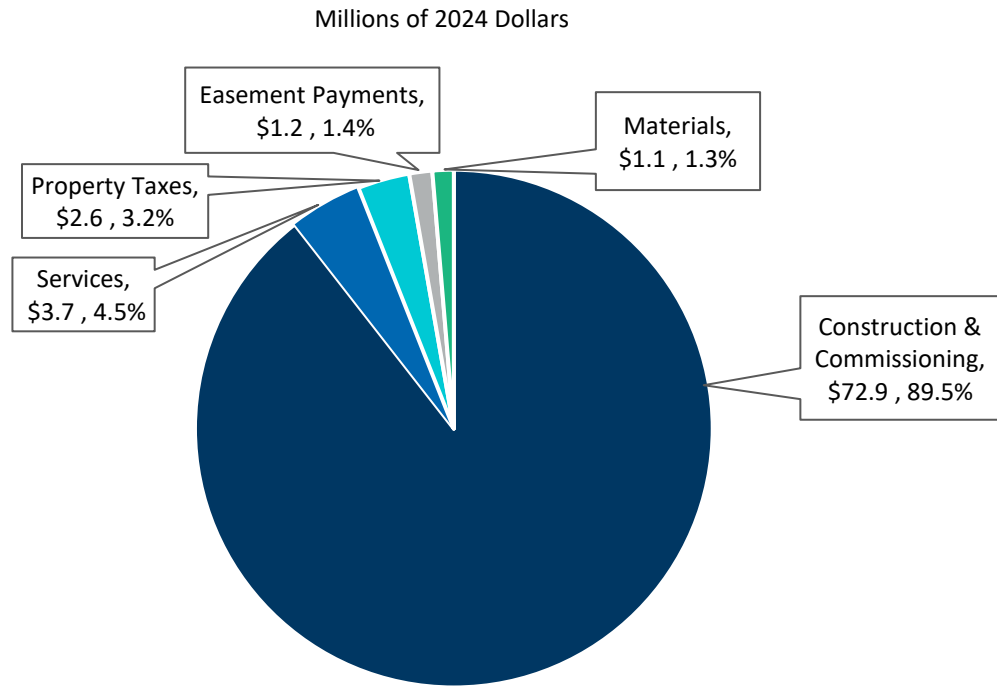
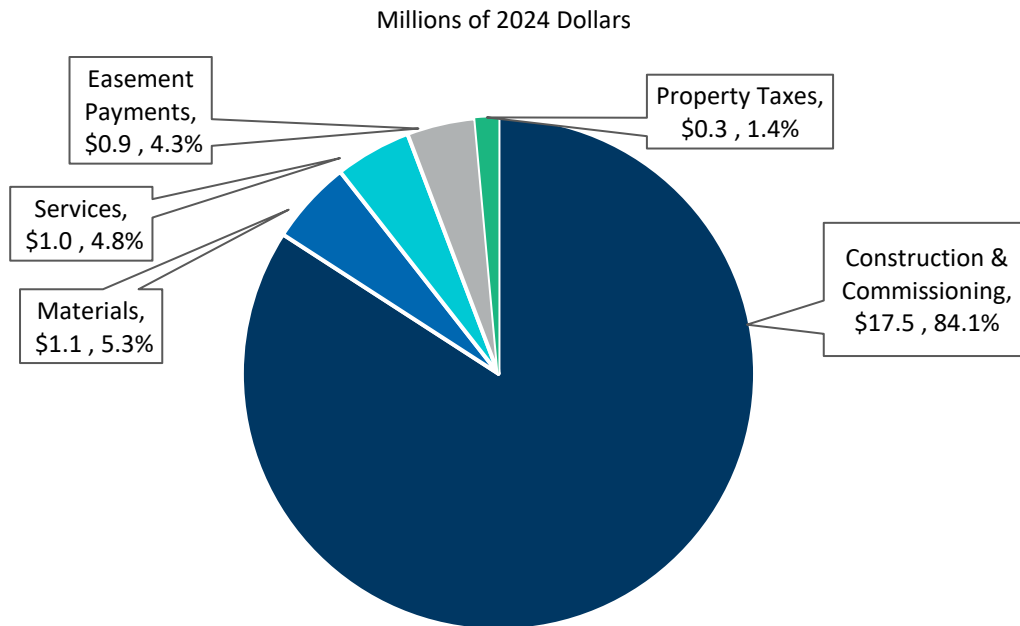
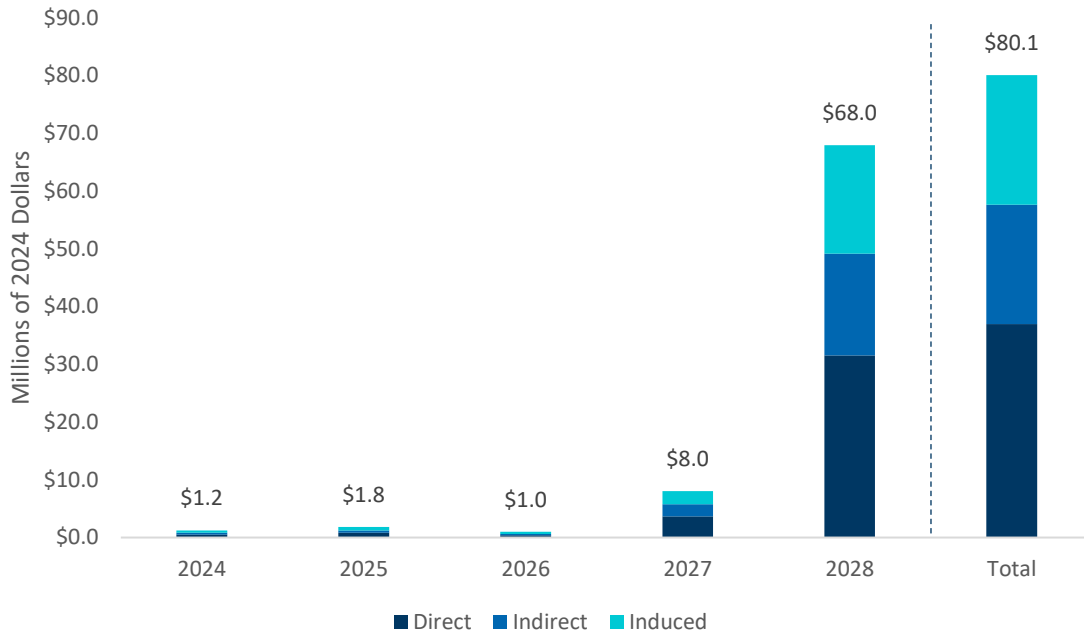


Figure 3: MVP Southgate Capital Expenditures in North Carolina by Major Spending Category, 2024–2028



This spending would increase GRP by \$68 million in Virginia in the peak construction year (i.e., 2028). Over the course of the project construction, the project would generate over \$80 million in cumulative GRP in Virginia, as shown below in Figure 4.

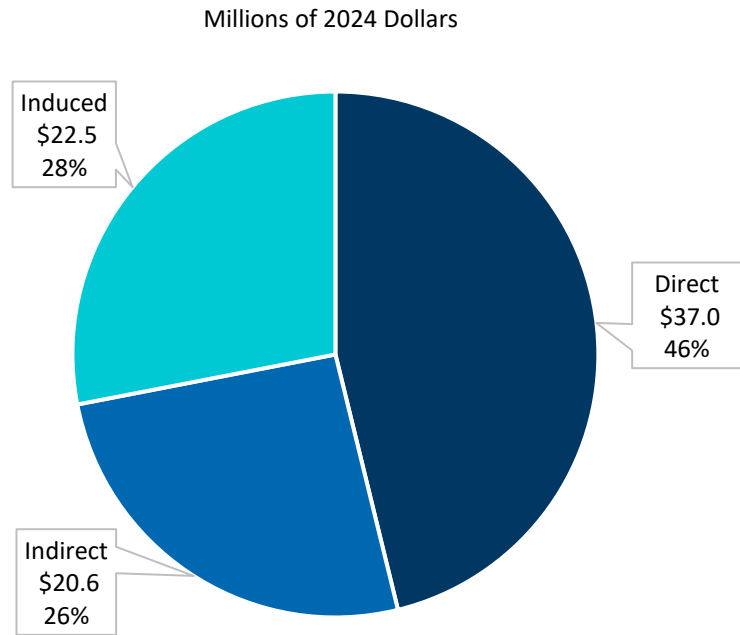
Figure 4: Impact of Construction Spending on Virginia GRP, 2024–2028



Note: totals may not add due to rounding.

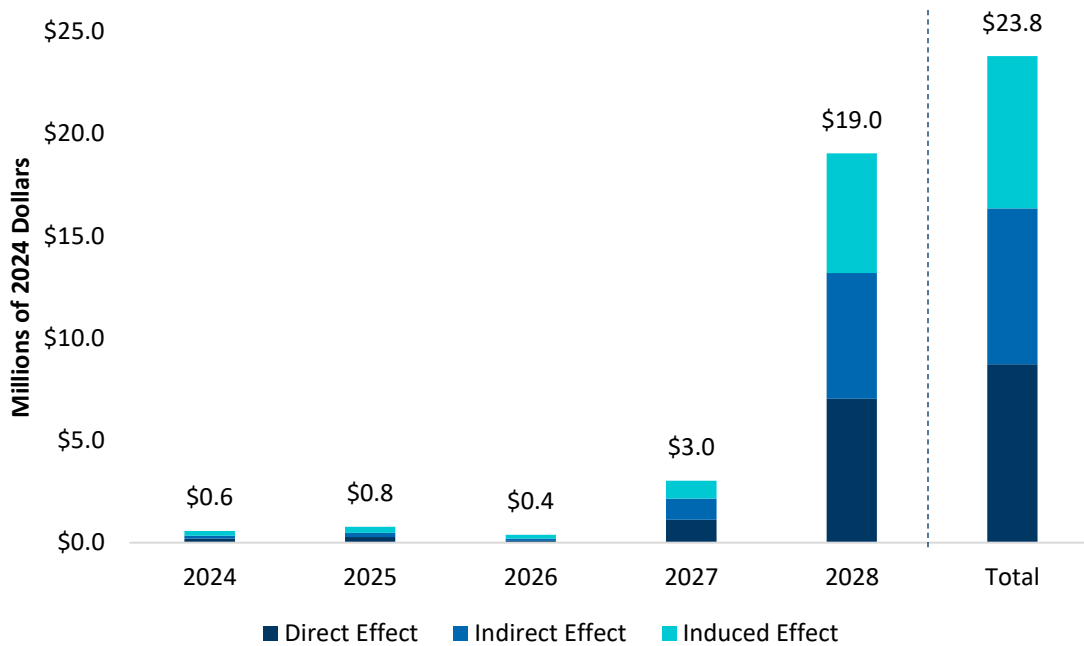
Figure 5 below shows the Virginia GRP added by MVP Southgate by direct, indirect, and induced GRP. As noted previously, “direct” refers to the GRP occurring from the capital expenditures within the industry sectors immediately impacted. “Indirect” represents the GRP impacts from suppliers to the directly impacted industries. “Induced” represents the GRP impacts from local spending by employees of the directly and indirectly affected industries.

Figure 5: Impact of MVP Southgate Construction Spending on Virginia GRP by Category, 2024–2028



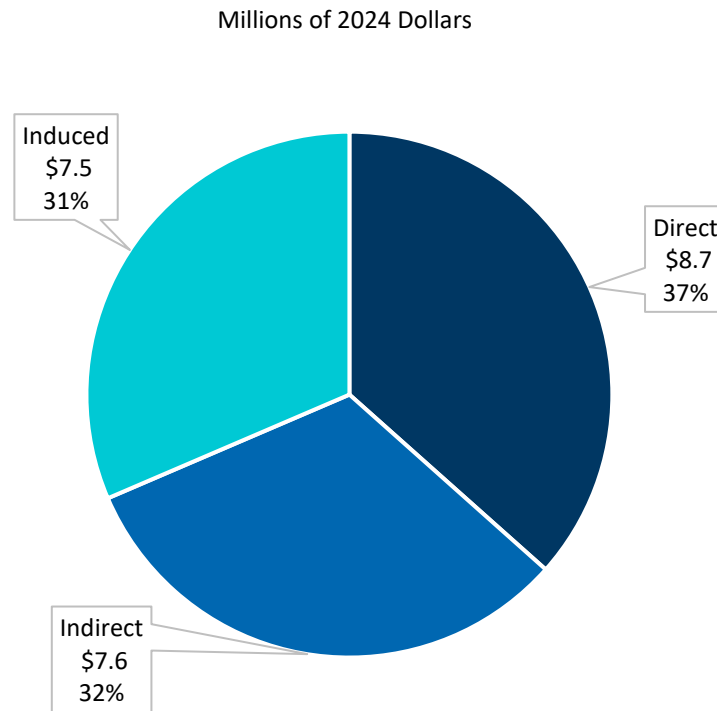
Construction spending for the MVP Southgate project would also generate \$19 million in GRP for North Carolina in 2028 at the construction peak and over \$23 million over the five-year construction period, shown in Figure 6 below.

Figure 6: Impact of Construction Spending on North Carolina GRP, 2024–2028



In addition, Figure 7 below shows MVP Southgate's contributions to North Carolina's GRP during the construction period by spending category. Similar to Virginia, directly affected sectors in North Carolina would experience the largest GRP impact during construction of the MVP Southgate project.

Figure 7: Impact of MVP Southgate Construction Spending on North Carolina's GRP by Category, 2024–2028



GRP is defined as the summation of employee compensation, proprietors' income, other property income, and federal, state, and local taxes on production and imports. Figure 8 and Figure 9 show employee compensation would have the largest impact on GRP in both states.

Figure 8: Composition of MVP Southgate’s Cumulative GRP Contributions in Virginia, 2024–2028

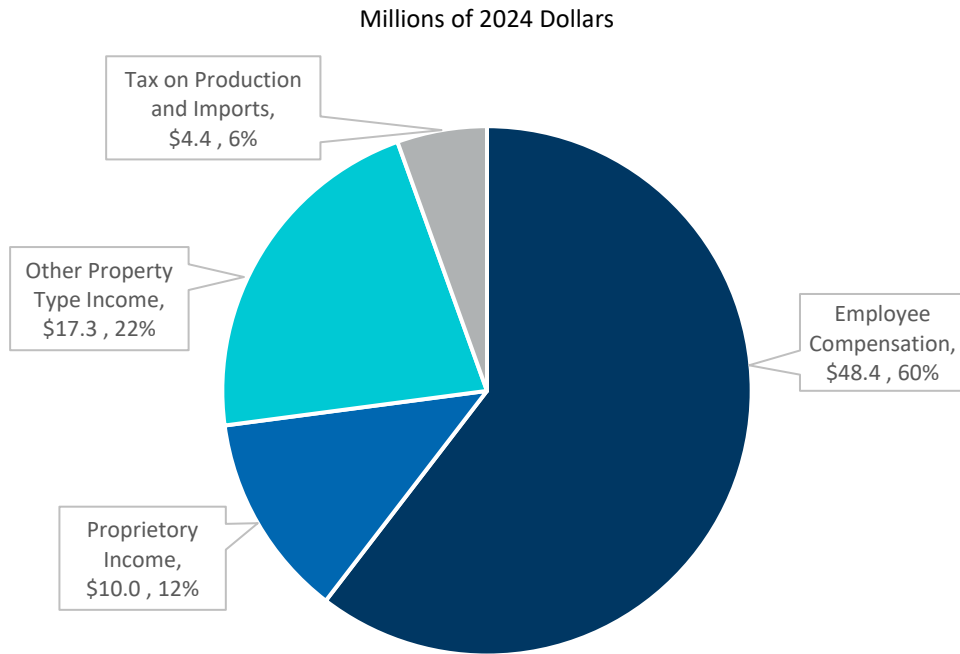
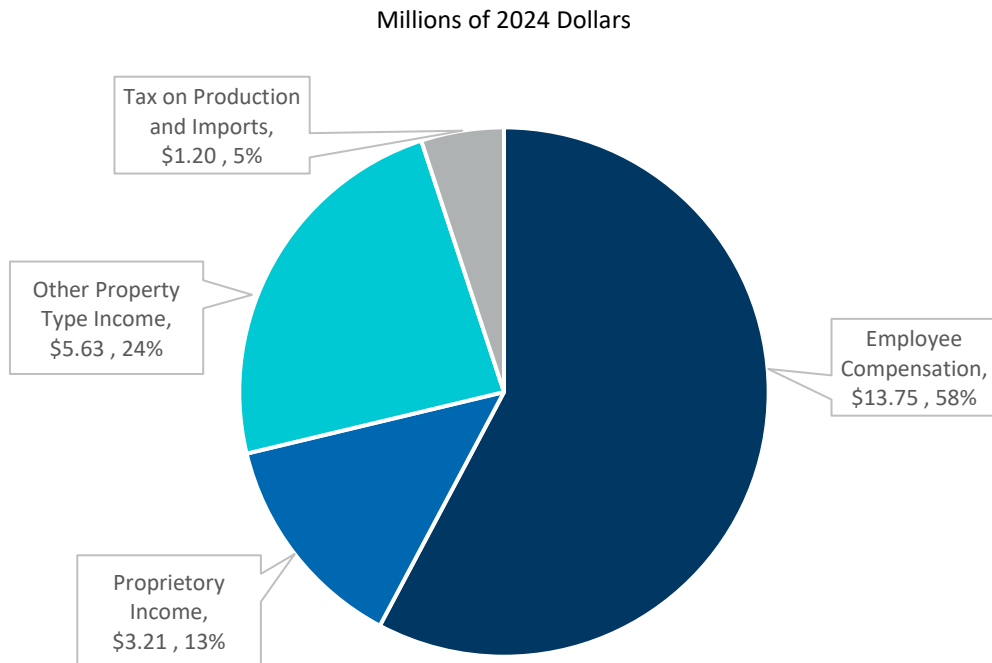


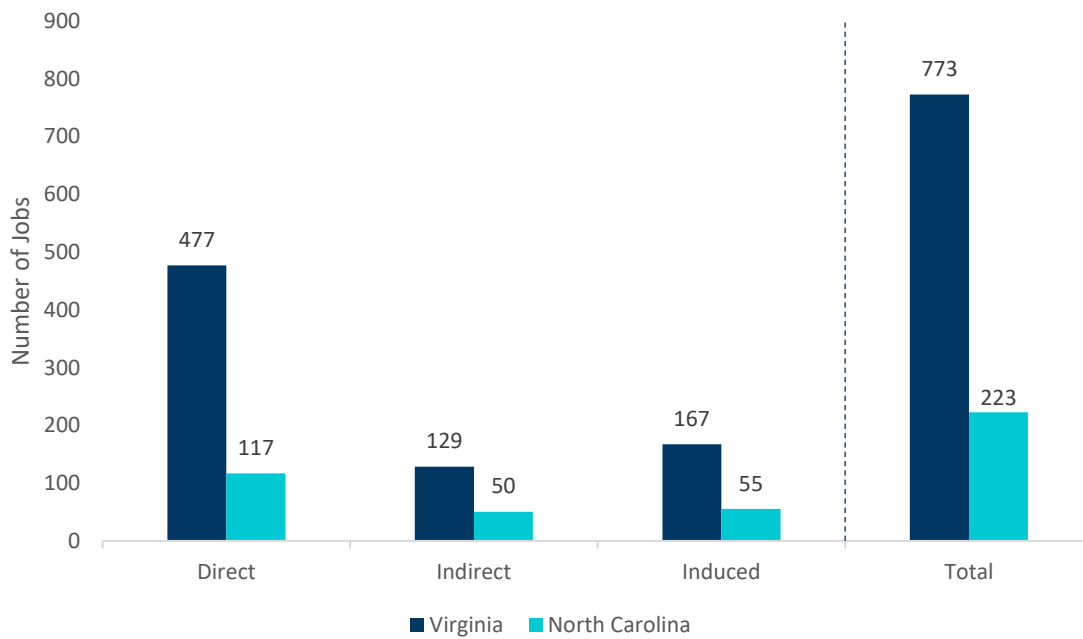
Figure 9: Composition of MVP Southgate’s Cumulative GRP Contributions in North Carolina, 2024–2028



In addition to the GRP benefits, the project would generate approximately 770 and 220 jobs in Virginia and North Carolina, respectively, in 2028 at peak construction activity. These jobs include construction

jobs, indirect jobs (i.e., jobs created in the state by suppliers to the direct industries impacted), and induced jobs (i.e., jobs created in the state via the spending of construction workers and employees of businesses hired to construct the pipeline). Figure 10 shows the impact of construction on employment in both states in 2028.

Figure 10: Impact of MVP Southgate Construction Spending on Employment in 2028 by Category

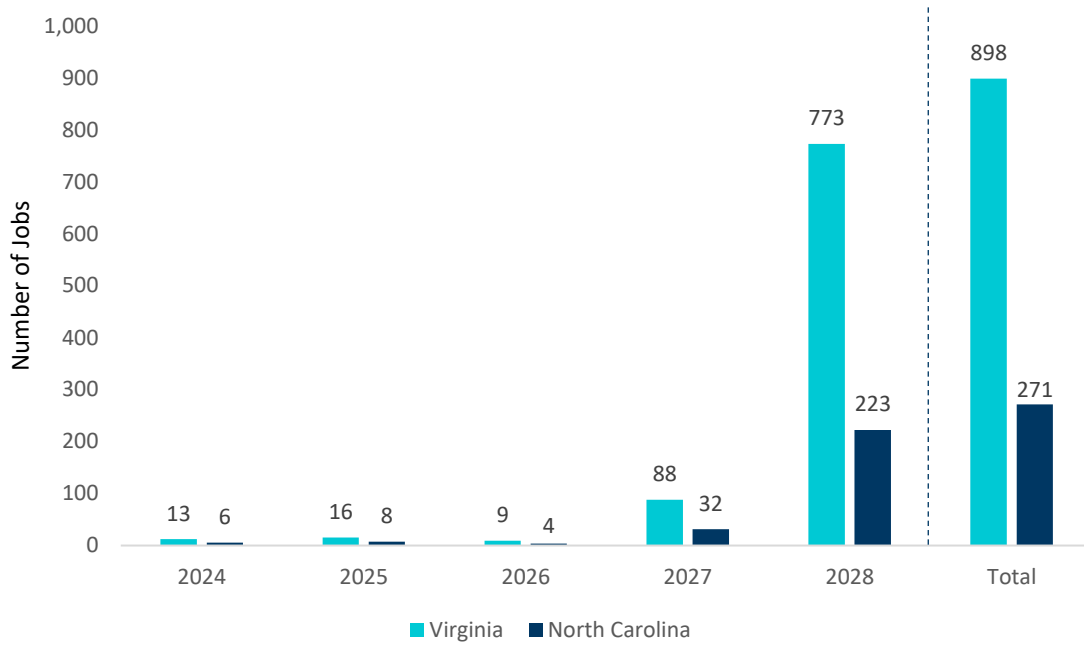


Note: totals may not add due to rounding.

Construction of the MVP Southgate project would create about 900 and 270 job-years in Virginia and North Carolina, respectively, over the five-year construction period as shown in Figure 11.⁴

⁴ The MVP Southgate employment contributions are directly tied to capital spending in each year and are best expressed in “job-years.” A job-year is the equivalent of one full-time job lasting a single year.

Figure 11: Impact of MVP Southgate Construction Spending on Employment, 2024–2028

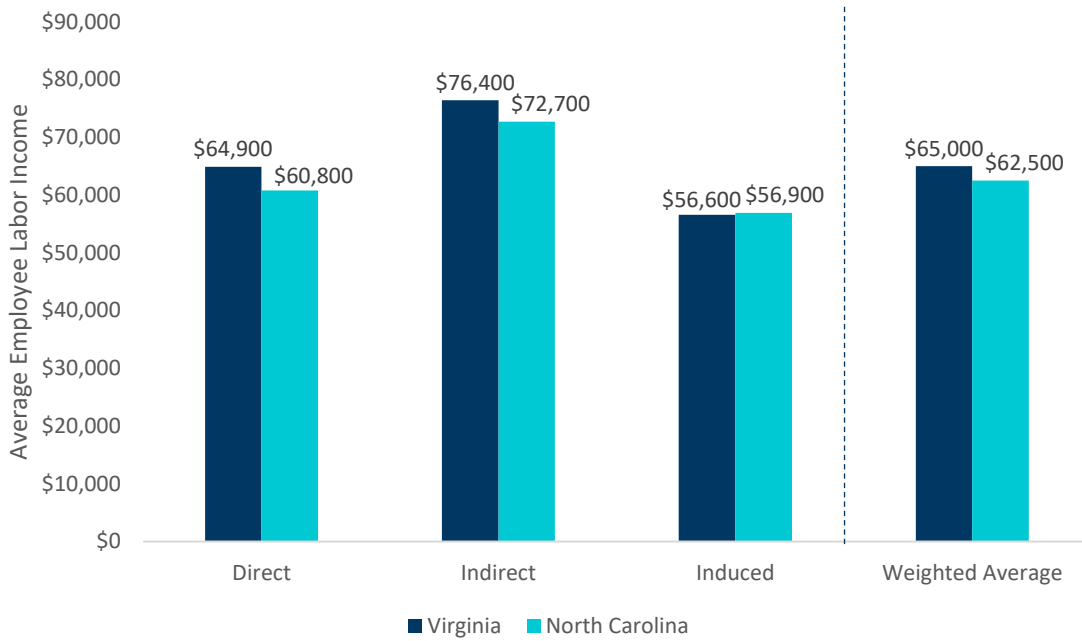


Note: totals may not add due to rounding.

The MVP Southgate project would also have a positive impact on employee compensation relative to the median income in the state. Figure 12 shows the average employee compensation for direct, indirect, and induced jobs from the MVP Southgate project. Notably, the BLS reports that the average wage for construction occupations was \$54,860 and \$50,980 per year in Virginia and North Carolina, respectively, in 2023.⁵

⁵ <https://www.bls.gov/oes/current/oesrcst.htm>

Figure 12: Average Employee Labor Income by Category during Construction, 2024–2028



As shown above, workers would earn an average of approximately \$65,000 and \$62,500 in Virginia and North Carolina, respectively, both of which are higher than the average annual wage for residents in counties along the pipeline route.

Operational Benefits

The MVP Southgate project would continue to provide economic benefits to the states, counties, and municipalities after construction. During the first full year of operation (2029), Mountain Valley expects to spend approximately \$8.4 million on remediation and monitoring of the pipeline, of which \$4.2 million will be spent on goods and services within Virginia and North Carolina. The total GRP impact for Virginia and North Carolina is expected to be \$4.2 million. Thereafter, Mountain Valley does not expect to incur meaningful expenses on the project beyond typical operation and maintenance expenses.

Ad valorem represents a second benefit category during operations. Mountain Valley anticipates paying almost \$1.5 million in ad valorem taxes annually, on average, over the first 10 years of the project’s operations.

Table 4 below summarizes the annual operational benefits of the project in each state.

Table 4: Annual Operational Benefits in Virginia and North Carolina

Category	Virginia	North Carolina	Total
GRP – 2029 only	\$3.30 million	\$937,000	\$4.23 million
Other State, Local, and Federal Taxes – 2029 Only	\$832,000	\$221,000	\$1.05 million
Ad Valorem Taxes – 10-year annual average	\$1.14 million	\$328,000	\$1.46 million

Note: totals may not add due to rounding.

Direct-Use Benefits

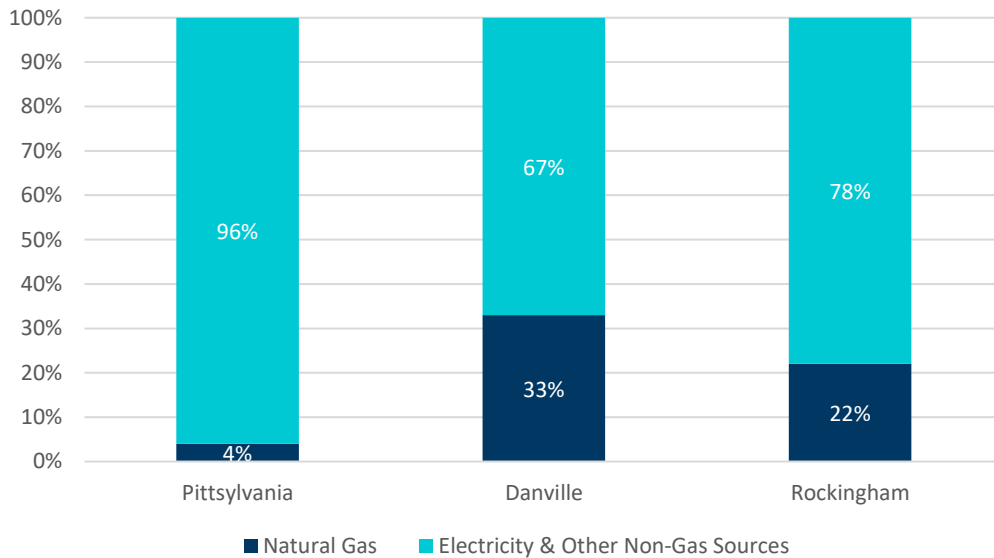
The following section reviews and discusses existing opportunities and savings in each county that could occur by switching to natural gas from fuel oil or propane for household heating. These opportunities exist in each of the city/county's end-use energy consumption sectors – residential & commercial, municipal buildings, and manufacturing. Natural gas has enabled these switching opportunities as it has increased the supply of natural gas, lowered its cost, and stabilized prices.

Residential Space Heating, Water Heating, and Cooking

All three areas considered in this report have varying degrees of natural gas access; however, most households use electricity, propane, and fuel oil for space heating, water heating, and cooking. Figure 13 below highlights the percentage of households in Pittsylvania, Danville, and Rockingham that use natural gas versus other fuels for space heating.⁶

⁶ <https://www.census.gov/acs/www/data/data-tables-and-tools/data-profiles/2016/>

Figure 13: Household Space Heating Fuel by County, 2022



To compute the economic switching potential to natural gas for the residential sector for the three areas, the following sets of data were applied:

- The number of households by county or city that consumed propane and fuel oil/kerosene for space heating in 2020 according to the U.S. Census Bureau.
- The average annual household site end-use consumption by fuel type for the South Atlantic census region according to the EIA.
- The percentage of urban populations by county or city according to the U.S. Census Bureau
- Annual average end-use prices by fuel type in 2023 according to the EIA.

Table 4 below shows the economic switching potential by area. We assume that only urban populations would have access to natural gas. The values in Table 5 do not include the costs of distribution, equipment, and ventilation upgrades. For propane and fuel oil, equipment upgrades would be nominal when existing furnaces reach the end of their useful lives.

Table 5: Residential Natural Gas Switching Annual Fuel Cost Savings by Area⁷

County/City	Natural Gas Switching Annual Fuel Cost Savings
Pittsylvania	\$846,000
Danville	\$629,000
Rockingham	\$1,314,000
Total	\$2,789,000

Manufacturing

The manufacturing sector accounts for almost 19 percent of the jobs in Pittsylvania, Danville, and Rockingham, and is a sector that could benefit significantly from having more reliable natural gas service. Natural gas is an influencing factor in retaining existing manufacturers and attracting new ones to the county. With annual wages that are, on average, 30 percent higher than the average wages across all sectors in each city/county, the manufacturing sector is crucial to the local economy and would benefit from the MVP Southgate project. Notably, access to natural gas is a major factor when businesses decide to invest in facilities, expand and modernize operations, and locate or relocate plants. Thus, access to natural gas can draw new businesses to areas and ensure current businesses remain committed to the long-term success of their operations within the community.

⁷ Cost savings exclude the cost of distribution, equipment, and ventilation upgrades

Summary

The proposed MVP Southgate project would benefit the Virginia and North Carolina economies during construction and operation. During operation, the MVP Southgate project would provide access to natural gas from the Appalachian basin, which has helped lower natural gas prices in the eastern U.S., making natural gas an economically attractive alternative to existing fuel sources.

The MVP Southgate pipeline could help retain or attract manufacturers, by ensuring future access to a reliable supply of natural gas. Interviews with county representatives, regional partnership leaders, and manufacturers identified that businesses value abundant and reliable gas service. All three areas already maintain a significant manufacturing presence, with the sector employing 19 percent of workers on average. Additionally, manufacturing firms generally pay higher wages than other sectors.

Further, the MVP Southgate project could allow for residential fuel switching, which would lower the costs to and increase the disposable income of households relying on propane or fuel oil/kerosene as their primary heat source.

These types of investments can provide large economic benefits to communities from an employment, wage, and tax revenue perspective. Input-output modeling software such as IMPLAN can help to estimate the magnitude of these impacts. In addition to the initial economic impact of the investment, businesses along the supply chain benefit through ripple, or multiplier, effects, as do households in the form of higher wages and disposable income.

Appendix I: County Economic and Energy Profiles

Pittsylvania County, Virginia

Economic Profile

Pittsylvania County, Virginia, is a 978-square mile county located in the Piedmont region of Virginia with a 2023 population of 59,571.⁸ In 2022, Pittsylvania's GRP was \$3.5 billion⁹ and its median household income was \$52,619.¹⁰ The largest towns in Pittsylvania are Chatham, Gretna, and Hurt. Pittsylvania County's 2023 unemployment rate was 3.1 percent, higher than the unemployment rate of Virginia (2.9 percent) but lower than the unemployment rate of the United States (3.6 percent).¹¹

As of December 2023, 13,090 people work in Pittsylvania County, approximately 22 percent of which work for the federal, state, or local government. The next largest sectors are manufacturing, health care and social assistance, and construction, which employ approximately 18 percent, 12 percent, and 10 percent, respectively, of Pittsylvania workers.¹² In addition, the average annual wage in Pittsylvania County is \$48,568, almost 37 percent less than the average annual state wage of \$77,064 in Virginia.¹³ Table 6 below shows employment and average wage by industry for Pittsylvania County.¹⁴

⁸ U.S. Census QuickFacts: Pittsylvania County, Virginia, <https://www.census.gov/quickfacts/fact/table/danvillecityvirginia,pittsylvaniacountyvirginia/PST045217>

⁹ National Association of Counties. <http://explorer.naco.org/>

¹⁰ U.S. Census QuickFacts: Pittsylvania County, Virginia, <https://www.census.gov/quickfacts/fact/table/danvillecityvirginia,pittsylvaniacountyvirginia/PST045217>

¹¹ <https://viriniaworks.com/docs/Local-Area-Profiles/5104000143.pdf>; <https://data.bls.gov/timeseries/LNS14000000>

¹² <https://viriniaworks.com/docs/Local-Area-Profiles/5104000143.pdf>

¹³ <https://viriniaworks.com/docs/Local-Area-Profiles/5101000000.pdf>

¹⁴ <https://viriniaworks.com/docs/Local-Area-Profiles/5104000143.pdf>

Table 6: Employment and Wages in Pittsylvania County by Industry

Industry	Employment	Percent of Total Employment	Average Annual County Wage	Percent Higher/Lower than County Wage
Government (Total)	2,901	22.2%	\$51,896	6.9%
Manufacturing	2,414	18.4%	\$59,696	22.9%
Health Care and Social Assistance	1,571	12.0%	\$42,432	-12.6%
Construction	1,268	9.7%	\$61,152	25.9%
Remaining Industries	4,936	37.7%	\$39,890	-17.9%
All Industries	13,090		\$48,568	

As shown above in Table 6, construction and manufacturing are some of the highest paying industries in Pittsylvania County, paying approximately 26 and 23 percent more than the average county wage. Manufacturing is also one of the largest employers in the county; Morgan Olson LLC, Unique Industries, Intertape Polymer Group, Owens-Illinois Inc, and Amthor International, described below, are Pittsylvania’s largest manufacturing employers.¹⁵

- Morgan Olson LLC:** Morgan Olson is a diversified manufacturing company known for producing the first all-aluminum step van. Their products are commonly used for deliveries of online purchases. In 2019, Morgan Olson announced their plans to invest \$57.8 million on the site previously occupied by IKEA, located in Danville-Pittsylvania County, creating over 700 jobs for locals. Morgan Olson partnered with the Virginia Talent Accelerator Program, created by the Virginia Community College System, to promote economic development within the community.¹⁶ The company is served natural gas.
- Tyson Foods:** In 2023, Tyson Foods opened a new \$300 million, 325,000-square-foot fully-cooked food production facility in Danville, Virginia, located in the Cane Creek Centre, a local business park owned by the City of Danville and Pittsylvania County. The facility will produce approximately four million pounds of premium quality, fully-cooked poultry

¹⁵ https://virginiaworks.com/_docs/Local-Area-Profiles/5104000143.pdf

¹⁶ <https://www.vedp.org/case-study/morgan-olson-llc-steps-southern-virginia>

products weekly and has created nearly 400 new jobs for the southeastern Virginia region.¹⁷ The company is served natural gas.

- **Unique Industries:** Unique Industries is a wholesale manufacturer and supplier of party goods with manufacturing operations located in Blairs, a town in Pittsylvania County.¹⁸ The company employs more than 300 people in Virginia.¹⁹ The company is not served natural gas and would like access.
- **Intertape Polymer Group (“IPG”):** IPG develops and manufactures paper and film-based sensitive and water-active tapes, polyethylene and specialized polyolefin films, and complementary packaging systems for diverse industrial and retail uses. IPG also produces woven coated fabrics.²⁰ At the beginning of 2021, it was reported that IPG employs over 300 people in Pittsylvania.²¹ In January 2021, IPG announced that it is expanding its manufacturing operations by investing \$45 million in its Pittsylvania facility over the course of four years and will be hiring an additional 50 employees.²² The company is served natural gas.
- **Owens-Illinois Inc. (“O-I”):** O-I is a global producer of glass containers, primarily for beverages, and maintains a manufacturing center in Ringgold. O-I employs up to 300 employees in Virginia.²³ The company is served natural gas.
- **Amthor International:** Amthor International is a custom tank manufacturer specializing in aluminum, stainless steel, and steel tanks. The 33,000 square foot manufacturing facility is in Pittsylvania County at the Gretna Industrial Park and is set to create 75 new jobs. With this expansion complete in the fall of 2024, Amthor will have over 200 employees, making it a leading employer in the county.²⁴ The company is not served natural gas and would like access.
- **AeroFarms:** In 2022, AeroFarms, a world leader in indoor vertical farming, opened AeroFarms Danville. The facility is located in Cane Creek Centre, similar to Tyson Foods, and can grow over 3 million pounds of leafy greens grown annually using hands-free farming

¹⁷ <https://www.tysonfoods.com/news/news-releases/2023/11/tyson-foods-opens-innovative-new-fully-cooked-food-production-plant>

¹⁸ <https://favours.com/about/our-history/>

¹⁹ <https://svra.org/major-employers/>

²⁰ <https://www.itape.com/about/>

²¹ <https://www.adhesivesmag.com/articles/98323-intertape-polymer-group-to-expand-manufacturing-facility-in-virginia>

²² <https://www.vedp.org/press-release/2021-01/intertape-polymer-pittsylvania>

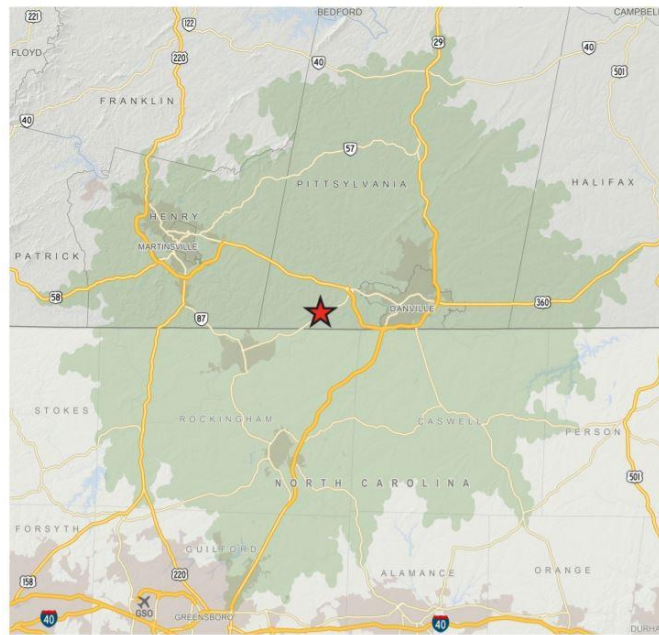
²³ <https://www.o-i.com/about-o-i/contact-us/americas/>; <https://svra.org/major-employers/>

²⁴ <https://wset.com/news/local/amthor-international-breaks-ground-on-new-facility-in-gretna-virginia-creating-75-jobs-february-2024>; <https://www.amthorinternational.com/>

with end-to-end automation from seeding to growing to harvesting to packaging. The facility added 158 direct jobs to the local economy.²⁵ The company is served natural gas.

Pittsylvania County has shown its commitment to manufacturing through the 3,500-acre Southern Virginia Megasite at Berry Hill, located in Pittsylvania County near the Virginia-North Carolina border. The park is the largest industrial park in the Southeast. In late 2023, *Virginia Business* reported that the Southern Virginia Megasite at Berry Hill was in the running for a large lithium-ion battery manufacturing plant that could possibly exceed \$1 billion in investments and bring in 1,500 jobs.²⁶

Figure 14: Map of Berry Hill Industrial Park



The park maintains water and sewer capacities of seven million gallons/day and four million gallons/day, respectively. Appalachian Power, owned by American Electric Power, provides electrical service to the Berry Hill Industrial Park. In addition, the Transco pipeline, which provides supply access for local distribution to city gas service customers, passes directly past the park, and will run parallel to the MVP Southgate project, offering another source of natural gas supply for industrial and residential customers.²⁷

Pittsylvania County maintains five industrial parks, one mega-site park, and several industrial and commercial properties.²⁸

²⁵ <https://www.aerofarms.com/aerofarms-danville-now-growing/#:~:text=In%20addition%20to%20the%20benefits,to%20more%20communities%20year%20round>

²⁶ https://www.chathamstartribune.com/news/article_56c97bba-8fa7-11ee-80d7-533edf21c76a.html

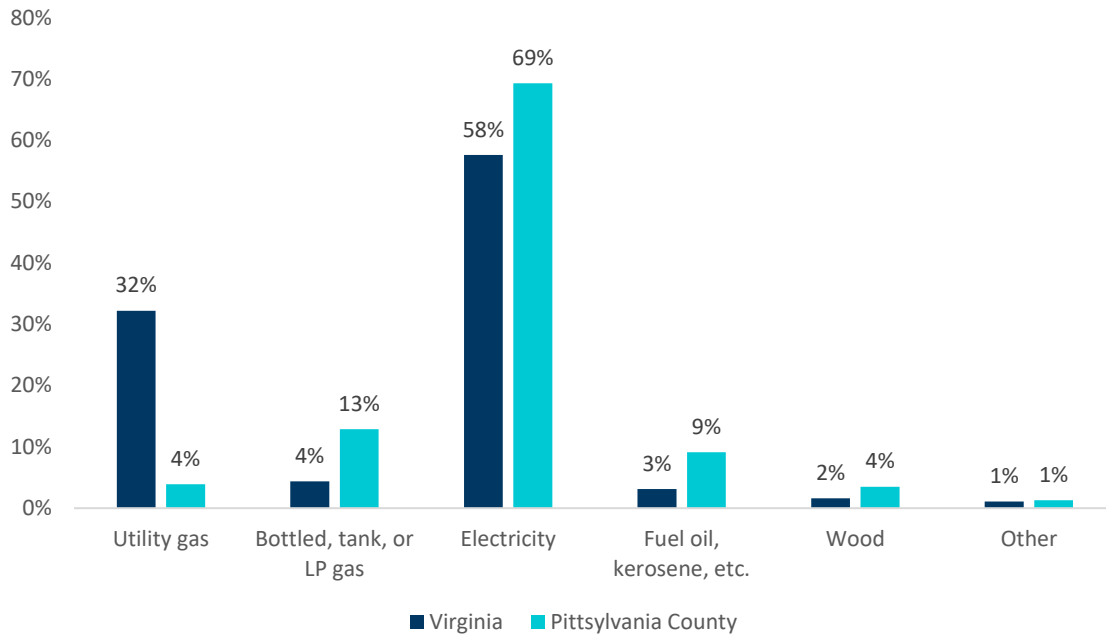
²⁷ <https://sovamegasite.org/mega-site-overview>

²⁸ <https://www.discoverdanville.com/sites-buildings/>

Energy Profile

As mentioned above, the Transco pipeline passes directly through Pittsylvania; however, as shown in Figure 15 below, only four percent of households use natural gas as their primary fuel for household heating.²⁹ This gas is provided by local utilities Columbia Gas and Southwestern Virginia Gas. Both Dominion Energy and Appalachian Power provide electric service to Pittsylvania.³⁰

Figure 15: Primary Household Heating Fuel in Virginia and Pittsylvania County, 2022



In contrast to the state of Virginia and the other areas described further below, many more households in Pittsylvania use fuel sources other than electricity and natural gas, such as propane, petroleum, and wood. In addition, some counties near Pittsylvania, such as Floyd and Patrick, do not have natural gas access and could also benefit from enhanced natural gas capacity provided by MVP Southgate.³¹

Natural gas is also important to retaining existing manufacturers and attracting new manufacturers to the county. Our analysis identified that manufacturers value abundant and reliable gas service and that access to natural gas is a primary criterion for determining where to locate new manufacturing facilities. Thus, enhanced natural gas access via the MVP Southgate project could provide an additional incentive for companies considering opening or relocating manufacturing operations to the county.

²⁹ U.S. Census Bureau. "Selected Housing Characteristics." American Community Survey, ACS 5-Year Estimates Data Profiles, Table DP04, 2022, https://data.census.gov/table/ACSDP5Y2022.DP04?q=DP04&g=050XX00US51143_160XX00US5121344; U.S. Census Bureau. "Selected Housing Characteristics." American Community Survey, ACS 1-Year Estimates Data Profiles, Table DP04, 2022, <https://data.census.gov/table/ACSDP1Y2022.DP04?q=DP04&g=040XX00US51>

³⁰ <https://www.pittsylvaniacountyva.gov/residents/utilities>

³¹ https://scc.virginia.gov/getattachment/8ace25f1-cfc1-41f9-a3da-2b5b8dae7ef1/gas_map.pdf

Danville, Virginia

Economic Profile

Danville, Virginia, is an approximately 43-square mile independent city located next to Pittsylvania County in the Piedmont region of Virginia. Danville maintained a population of 41,837 in 2023 and a 2022 median household income of \$41,484.³² Danville’s 2023 unemployment rate was 4.6 percent, higher than the unemployment rates of both Virginia and the United States of 2.9 percent and 3.6 percent, respectively.³³

As of December 2023, 24,701 people work in the city of Danville, approximately 19 percent of which work in the health care and social assistance industry. The next largest sectors are manufacturing, retail, and government, which employ approximately 16 percent, 16 percent, and 15 percent, respectively, of Danville workers.³⁴ In addition, the average annual wage in Danville is \$50,440, almost 35 percent less than the average annual state wage of \$77,064 in Virginia.³⁵ Table 7 below shows employment and average wage by industry for Danville.³⁶

Table 7: Employment and Average Wages in Danville by Industry, 2023

Industry	Employment	Percent of Total Employment	Average Annual County Wage	Percent Higher/Lower than County Wage
Health Care and Social Assistance	4,779	19.3%	\$55,276	9.6%
Manufacturing	3,836	15.5%	\$72,956	44.6%
Retail	3,724	15.1%	\$29,848	-40.8%
Government (total)	3,582	14.5%	\$58,656	16.3%
Remaining Industries	8,780	35.5%	\$43,353	-14.1%
All Industries	24,701		\$50,440	

As shown above in Table 7, manufacturing is one of the highest paying industries in Danville, paying approximately 45 percent more than the average county wage. Manufacturing is also one of the largest employers in the county; Goodyear Tire & Rubber, Buitoni Food Company, Essel Propack

³² <https://www.census.gov/quickfacts/fact/table/danvillecityvirginia,pittsylvaniacountyvirginia/PST045217>

³³ <https://www.virginiaworks.com/docs/Local-Area-Profiles/5104000590.pdf>; <https://data.bls.gov/timeseries/LNS14000000>

³⁴ <https://www.virginiaworks.com/docs/Local-Area-Profiles/5104000590.pdf>

³⁵ <https://www.virginiaworks.com/docs/Local-Area-Profiles/5101000000.pdf>

³⁶ <https://www.virginiaworks.com/docs/Local-Area-Profiles/5104000590.pdf>

America LLC, EBI LLC, Litehouse Inc., and Blue Ridge Fiberboard Inc., described below, are among Danville’s largest manufacturing employers.³⁷

- **Goodyear Tire & Rubber:** Goodyear is one of the largest tire manufacturers in the world and has expanded its business to include commercial truck service, tire retreading centers, and auto service outlets. Goodyear is also the largest employer in Danville with over 2,300 employees.³⁸
- **Buitoni Food Company:** Buitoni is a leading U.S. manufacturer of pasta, sauces, and cheese. Buitoni operates out of a 240,000 square foot facility in Danville.³⁹ The company, originally owned by Nestlé, was acquired by Brynwood Partners in 2020. Buitoni employs approximately 525 people at the Danville facility.⁴⁰
- **Tyson Foods:** In 2023, Tyson Foods opened a new \$300 million, 325,000-square-foot fully-cooked food production facility in Danville, Virginia, located in the Cane Creek Centre, a local business park owned by the City of Danville and Pittsylvania County. The facility will produce approximately four million pounds of premium quality, fully-cooked poultry products weekly and has created nearly 400 new jobs for the southeastern Virginia region.⁴¹ The company is served natural gas.
- **EBI:** EBI is a Polish company that manufactures and distributes upholstered furniture and mattresses for Com.40, Ltd. IKEA is one of EBI’s main buyers.⁴² The thirteenth largest employer in Danville, EBI’s 350,000 square foot manufacturing center employs over 300 people.⁴³
- **Essel Propack:** Essel Propack (EPL) is a global specialty packaging manufacturer of laminated plastic tubes primarily used for fast-moving consumer goods and pharmaceuticals.⁴⁴ Essel Propack is one of the top 20 largest employers in Danville and employs around 250 locally.⁴⁵ In April 2021, EPL announced they will be investing \$37.4 million into the expansion of the Danville manufacturing facility and adding 24 jobs.⁴⁶

³⁷ <https://svra.org/major-employers/>

³⁸ <https://www.tirereview.com/goodyear-danville-plant-plans-renovations/>

³⁹ <https://www.brynwoodpartners.com/portfolio-info/buitoni-food-company>

⁴⁰ <https://www.prnewswire.com/news-releases/brynwood-partners-agrees-to-acquire-the-north-american-buitoni-business-from-nestle-usa-inc-301072286.html>

⁴¹ <https://www.tysonfoods.com/news/news-releases/2023/11/tyson-foods-opens-innovative-new-fully-cooked-food-production-plant>

⁴² <https://www.tradeandindustrydev.com/industry/manufacturing/com40-ltd-danville-virginia-2370>

⁴³ https://www.virginiaworks.com/_docs/Local-Area-Profiles/5104000590.pdf; <https://blair-construction.com/project/ebi-poland/>; <https://svra.org/major-employers/>

⁴⁴ <https://pitchbook.com/profiles/company/57377-80#overview>

⁴⁵ <https://wset.com/news/local/expansion-announced-in-danville-includes-45-jobs>; <https://svra.org/major-employers/>

⁴⁶ https://godanriver.com/news/local/business/development/epl-to-expand-in-danville-investing-about-37-million-and-adding-24-jobs/article_4152adf2-f8fb-11ee-80d1-0b7b8ebc4cf0.html

- **AeroFarms:** In 2022, AeroFarms, a world leader in indoor vertical farming, opened AeroFarms Danville. The facility is located in Cane Creek Centre, similar to Tyson Foods, and can grow over 3 million pounds of leafy greens grown annually using hands-free farming with end-to-end automation from seeding to growing to harvesting to packaging. The facility added 158 direct jobs to the local economy.⁴⁷ The company is served natural gas.
- **Litehouse Inc:** Litehouse is a food manufacturing company producing various products such as salad dressing, cheeses, dips, freeze dried herbs etc., across multiple brands. Their brands feature: California Pizza Kitchen dressings, Sky Valley, Organicville, VeggieCraft Farms, and Green Garden. Litehouse operates out of Idaho, Michigan, Utah, and Virginia.⁴⁸ The Danville manufacturing facility reported an employee count of approximately 110 employees back in 2021.⁴⁹
- **Blue Ridge Fiberboard Inc:** Blue Ridge Fiberboard is a manufacturer of fiberboard products serving manufacturers of bulletin boards, dry mark and magnetic boards, office partitions, and laminated furniture and packaging. Some of their specialties include roofing, sheathing, and soundproofing. Blue Ridge Fiberboard operates their sole manufacturing plant in Danville.⁵⁰

The City of Danville has shown its commitment to manufacturing through the addition of the 3,500-acre Southern Virginia Megasite at Berry Hill, located in Pittsylvania County near the Virginia-North Carolina border. The park is the largest industrial park in the Southeast. In late 2023, *Virginia Business* reported that the Southern Virginia Megasite at Berry Hill was competing for a large lithium-ion battery manufacturing plant that could possibly exceed \$1 billion in investments and bring 1,500 jobs to the city and surrounding area.⁵¹

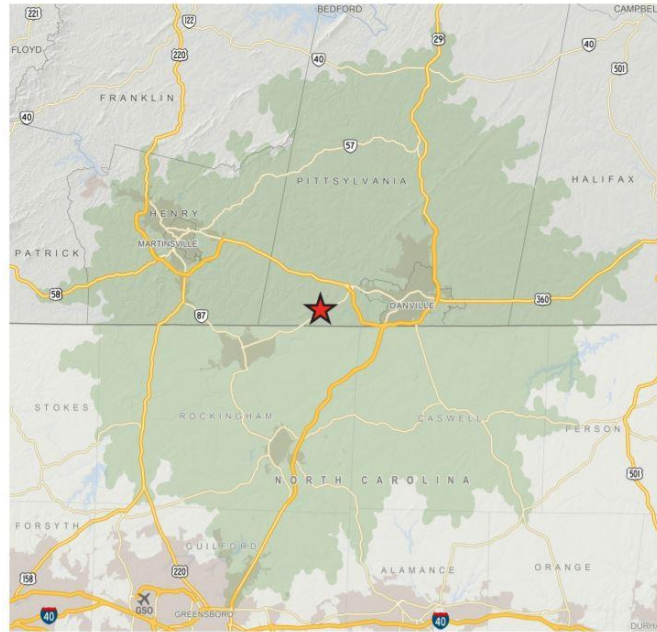
⁴⁷ <https://www.aerofarms.com/aerofarms-danville-now-growing/#:~:text=In%20addition%20to%20the%20benefits,to%20more%20communities%20year%2Dround>

⁴⁸ <https://www.litehousefoods.com/>

⁴⁹ <https://wset.com/news/local/litehouse-foods-hiring-dozens-after-recent-expansion>

⁵⁰ <https://www.blueridgefiberboard.com/careers/>; <https://www.blueridgefiberboard.com/about/>

⁵¹ https://www.chathamstartribune.com/news/article_56c97bba-8fa7-11ee-80d7-533edf21c76a.html

Figure 16: Map of Berry Hill Industrial Park Site

The park maintains water and sewer capacities of seven million gallons/day and four million gallons/day, respectively. Appalachian Power, owned by American Electric Power, provides electrical service to the Berry Hill Industrial Park. In addition, the Transco pipeline, which provides supply access for local distribution to city gas service customers, passes directly past the park, and will run parallel to the MVP Southgate project, offering another source of natural gas supply for industrial and residential customers.⁵²

There are three other major industrial parks in the city – the Airside Industrial Park, Riverview Industrial Park, and Cyber Park – all of which have lots currently available.⁵³

Energy Profile

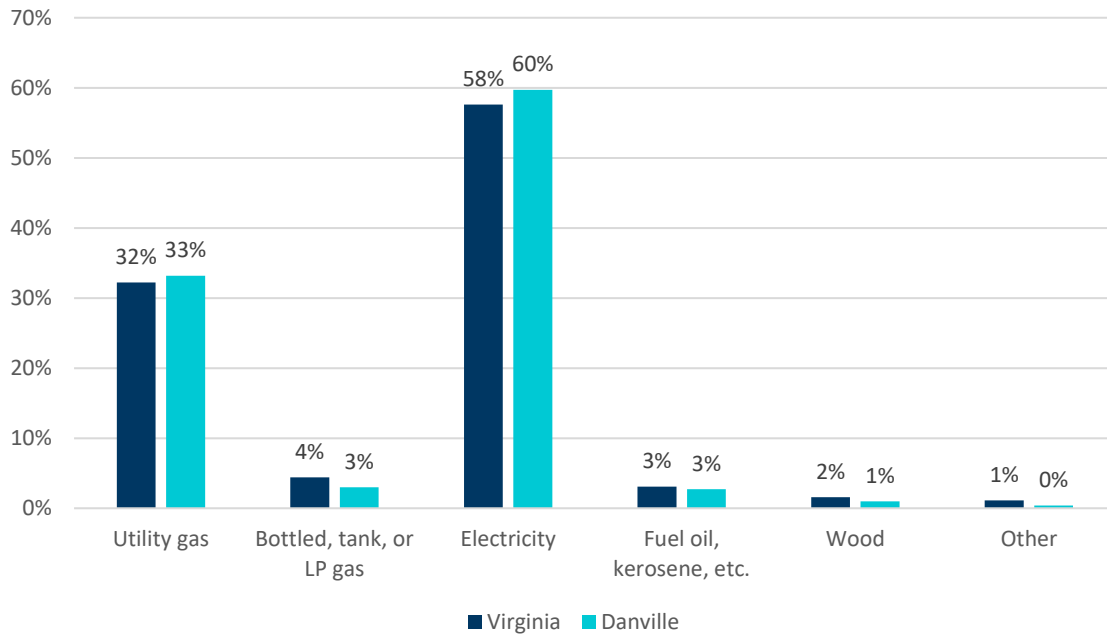
As mentioned above, the Transco pipeline provides natural gas service to the City of Danville through Danville Utilities, which also offers electricity service. As shown in Figure 17 below, more than half of Danville households use electricity as their primary fuel for household heating.⁵⁴

⁵² <https://sovamegasite.org/mega-site-overview>

⁵³ <http://www.discoverdanville.com/index.aspx?NID=229>

⁵⁴ U.S. Census Bureau. "Selected Housing Characteristics." American Community Survey, ACS 5-Year Estimates Data Profiles, Table DP04, 2022, https://data.census.gov/table/ACSDP5Y2022.DP04?q=DP04&g=050XX00US51143_160XX00US5121344; <https://data.census.gov/table/ACSDP1Y2022.DP04?q=DP04&g=040XX00US51>

Figure 17: Primary Household Heating Fuel in Virginia and the City of Danville, 2022



Natural gas is also important to retaining existing manufacturers and attracting new manufacturers to the county. Our analysis identified that manufacturers value abundant and reliable gas service and that access to natural gas is a primary criterion for determining where to locate new manufacturing facilities. Thus, enhanced natural gas access via the MVP Southgate project could provide an additional incentive for companies considering opening or relocating manufacturing operations to the city.

Rockingham, North Carolina

Economic Profile

Rockingham County, North Carolina, is a 572-square mile county located in the Piedmont region of North Carolina with a 2023 population of 92,518.⁵⁵ Rockingham is made up of six municipalities: Eden, Reidsville, Madison, Mayodan, Stoneville, and Wentworth.⁵⁶ In 2022, Rockingham's GRP was \$2.79 billion⁵⁷ and its 2023 median household income was \$46,993.⁵⁸ Rockingham County's unemployment rate in 2023 was 3.7 percent, higher than the unemployment rates of both North Carolina and the United States of 3.3 percent and 3.6 percent, respectively.

As of 2023, 27,304 people work in Rockingham County. Manufacturing is the largest sector, accounting for approximately 20 percent of the workforce. The next largest sectors are retail and health care and social assistance, which employ approximately 15 percent and 11 percent, respectively, of Rockingham workers. In addition, the average annual wage in Rockingham County is \$43,467, about 30 percent less than the average annual state wage of \$63,544 in North Carolina.⁵⁹ Table 8 below shows employment and average wage by industry for Rockingham County.⁶⁰

Table 8: Employment and Average Wages in Rockingham County by Industry, 2023

Industry	Employment	Percent of Total Employment	Average Annual County Wage	Percent Higher/Lower than County Wage
Manufacturing	5,484	22.1%	\$52,957	21.8%
Retail	4,070	14.9%	\$31,569	-27.4%
Health Care and Social Assistance	3,051	11.2%	\$50,305	15.7%
Accommodation and Food Service	2,237	8.2%	\$19,356	-55.5%
Remaining Industries	12,462	45.6%	\$45,831	5.4%
All Industries	27,304		\$43,467	

As shown above in Table 8, manufacturing is one of the highest paying industries in Rockingham County, paying approximately 22 percent more than the average county wage. Manufacturing is also

⁵⁵ <https://www.rockinghamcountync.gov/pview.aspx?id=21422>;

<https://www.census.gov/quickfacts/fact/table/alamancecountynorthcarolina,rockinghamcountynorthcarolina/PST045217>

⁵⁷ <https://fred.stlouisfed.org/series/REALGDPALL37157>

⁵⁸ <https://www.rockinghamcountync.gov/files/documents/2023EconomicOverview1371101350010524AM.pdf>

⁵⁹ https://www.bls.gov/regions/southeast/news-release/countyemploymentandwages_northcarolina.htm

⁶⁰ <https://www.rockinghamcountync.gov/files/documents/2023EconomicOverview1371101350010524AM.pdf>

one of the largest employers in the county; Unifi, Sturm, Ruger & Co., Dorada Foods, and Gildan Yarns, described below, are Rockingham’s largest manufacturing employers.

- **Unifi, Inc:** Unifi is a global textile company known for its production of REPREVE®, a recycled performance fiber.⁶¹ With a manufacturing center located in Reidsville, Unifi employs around 700 people in Rockingham.⁶² The company is served natural gas.
- **Sturm, Ruger & Company (“Ruger”):** Ruger is one of the country’s largest firearm manufacturers for the commercial sporting market.⁶³ Located in Mayodan, Ruger employs approximately 635 people.⁶⁴ The company is served natural gas.
- **Dorada Foods:** Lopez-Dorada Foods is a leader in the protein processing industry, supplying beef, pork, and poultry products. They supply products to some of the largest restaurant chains and retailers.⁶⁵ Dorada Foods operates a facility in Reidsville that employs around 430 people.⁶⁶ The company is served natural gas.
- **Gildan Yarns:** Gildan Yarns produces spun yarns for the knitting and weaving industries. Frontier Spinning Mills was acquired by Gildan Activewear in 2021.⁶⁷ With four facilities in North Carolina and two manufacturing plants in Rockingham County: Mayodan and Eden. Gildan Yarns employs over 400 people in Rockingham County.⁶⁸ The company is not served natural gas.

Rockingham County also has four industrial parks: Eden Industrial Center, Madison Business Park, Reidsville Industrial Park, and South Rockingham Corporate Park.⁶⁹ Duke Energy owns Dan River Combined Cycle Station, a 718-megawatt combined cycle natural gas plant in Rockingham, and Piedmont Natural Gas provides natural gas service to the industrial parks.⁷⁰

Natural gas is important to retaining existing manufacturers and attracting new manufacturers to the county, such as Farmina Pet Foods (announced in 2020 and will use natural gas). Our analysis identified that manufacturers value abundant and reliable gas service and that access to natural gas is a primary criterion for determining where to locate new manufacturing facilities. The Transco pipeline also passes through Rockingham County.⁷¹

⁶¹ <https://www.linkedin.com/company/unifi-inc./about/>

⁶² [Key Industries & Top Employers - Rockingham County North Carolina \(rockinghamcountync.gov\)](#)

⁶³ <https://ruger.com/dataProcess/tellTheCEO/>

⁶⁴ [Key Industries & Top Employers - Rockingham County North Carolina \(rockinghamcountync.gov\)](#)

⁶⁵ <https://www.lopezdorada.com/who-we-are>

⁶⁶ [Key Industries & Top Employers - Rockingham County North Carolina \(rockinghamcountync.gov\)](#)

⁶⁷ <https://gildancorp.com/en/media/news/2021-acquisition-frontier-yarns/>

⁶⁸ [Key Industries & Top Employers - Rockingham County North Carolina \(rockinghamcountync.gov\)](#)

⁶⁹ <https://rockinghamcountync.giswebtechguru.com/?sorting=featured&showpropertyonmap=true&activebasemap2d=Naviga tion&mapextent=-8848052.045347929,4375547,-8912535.954652071,4333893&mapzoom=-1>

⁷⁰ <https://www.duke-energy.com/our-company/about-us/power-plants-map>

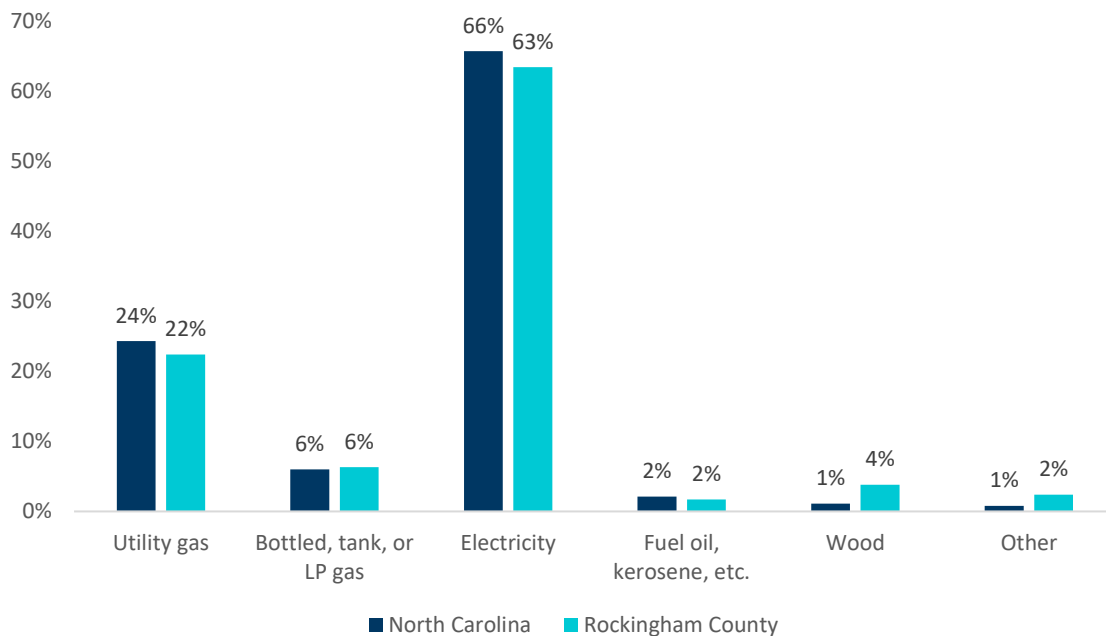
⁷¹ <https://www.williams.com/expansion-project/southside-reliability-enhancement/>

Regarding transportation, Interstate 785 is funded and scheduled to be extended to the North Carolina state line connecting the City of Danville, VA to Reidsville, NC.⁷²

Energy Profile

Piedmont Natural Gas provides natural gas service to Rockingham, while Duke Energy provides electric service.⁷³ As shown in Figure below, the distribution of household fuel sources in Rockingham County closely mirrors that of North Carolina as a whole, with most households using electricity as their primary household heating source.⁷⁴

Figure 23: Primary Household Heating Fuel in Rockingham County, 2022



Natural gas is also important to retaining existing manufacturers and attracting new manufacturers to the county. Our analysis identified that manufacturers value abundant and reliable gas service and that access to natural gas is a primary criterion for determining where to locate new manufacturing facilities. Thus, enhanced natural gas access via the MVP Southgate project could provide an additional incentive for companies considering opening or relocating manufacturing operations to the city.

⁷² <https://www.reidsvillechamber.org/55582-2/>

⁷³ <https://www.rockinghamcountync.gov/pview.aspx?id=21431>

⁷⁴ U.S. Census Bureau. "Selected Housing Characteristics." American Community Survey, ACS 1-Year Estimates Data Profiles, Table DP04, 2022, https://data.census.gov/table/ACSDP1Y2022.DP04?q=DP04&g=040XX00US37_050XX00US37157