

FEASIBILITY STUDY
REGION NINE REGIONAL PLANNING AND DEVELOPMENT COUNCIL
GAS PIPELINE FEASIBILITY PROJECT
BERKELEY AND JEFFERSON COUNTIES, WEST VIRGINIA

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I. INTRODUCTION

A. PROJECT OVERVIEW

The Region Nine Regional Planning and Development Council (“Region Nine”) exists to assist local governments in resolving their common problems, engage in area-wide comprehensive and functional planning, identify, apply for, and administer certain federal and state grants, and provide a regional focus in regard to multiple programs undertaken on an area-wide basis. The area of focus for Region Nine consists of Berkeley, Jefferson, and Morgan Counties, located in the eastern panhandle of West Virginia.

In March 2014, Region Nine solicited requests for professional engineering services to perform a study with related research and analysis to determine the feasibility of expanding the supply of natural gas in the eastern panhandle region of West Virginia and to identify the most economically beneficial route for a proposed natural gas pipeline that would deliver and distribute natural gas into the three-county area served by Region Nine.

In August 2014, Region Nine executed an agreement with the Thrasher Group, Inc. (“Thrasher”) to perform the study. Thrasher is a WV-based engineering, architecture and design firm with direct experience in the upstream (drilling and exploration) and midstream (pipeline and processing) oil and gas industry in WV, PA and OH. Its experience and knowledge in the energy arena provides Thrasher a unique qualification to perform this study.

The results of the research along with options for service and related study findings are included within this report.

B. PROJECT TEAM, REVIEW COMMITTEE AND KEY PERSONNEL

The Thrasher Project Team consists of:

Woody Thrasher, Tom Marion, Michael Hines - The Thrasher Group
Eric Bowen MS, John Deskins PhD, Christiadaï PhD - WVU BBER
Michael Griffith - Michael Griffith and Associates
Bill Roach - W. E. Roach and Associates
Jimmy Staton – Staton Consulting, LLC
John Stump – Steptoe & Johnson

The Region Nine Project Committee is composed of:

Steve Christian – Berkeley County Development Authority

John Reisenweber – Jefferson County Development Authority
Patsy Noland – Jefferson County Commission
Jim Barnhart – Berkeley County Council
Mark Baldwin – City Manager Martinsburg WV

Other key personnel and subject matter experts involved with the project include:

Bill Clark, Executive Director – Region Nine
Terri Burhans, Executive Director – Morgan County Economic Development Authority
Moses Skaff, Larry Meador, Tom Westfall, Rich Pistner – Mountaineer Gas Company
Kris Hopkins, Todd Hooker, Nic Diehl – WV Development Office

C. PROJECT STAKEHOLDERS

Primary project stakeholders have a vested interest in the potential availability of natural gas service in the Region Nine area. Several of these stakeholders have assisted with guidance, counsel and information gathering throughout the study, as needed, individually and/or as a group. Primary stakeholders are noted below.

Region Nine and its three county development entities, Jefferson County Development Authority (“JCDA”), Berkeley County Development Authority (“BCDA”) and Morgan County Economic Development Authority (“MCEDA”), commissioned this study to understand the opportunities, challenges, options and related costs of bringing additional natural gas supply into the eastern panhandle region, specifically Jefferson and Berkeley Counties.

Mountaineer Gas Company of West Virginia (“MGCWV”) is the only local distribution company (“LDC”) that is authorized and approved by the West Virginia Public Service Commission (“WVPSC”) to operate a natural gas utility to support the commercial and residential natural gas market in Region Nine.

The West Virginia Development Office (“WVDO”) is another interested party. Its mission is to “[i]mprove the quality of life for all West Virginians by strengthening our communities and expanding the state’s economy to create more and better jobs.”

Another key stakeholder in aggregate is the general population of the eastern panhandle region of WV, whose lives and livelihoods may be positively impacted by the construction of a natural gas pipeline and the potential availability of natural gas service in the area. A subset of this group would be landowners whose property may be impacted by construction and routing of the gas pipeline.

Finally, the company that would build and/or operate the pipeline would be a stakeholder, along with the entity or entities that would be financing the project.

G. PRELIMINARY PROJECT TIMELINE

Pipeline construction timelines can vary greatly depending upon the many unknowns and variables encountered during scoping, planning and design. The project team has compiled a preliminary project timeline based upon past construction experience and related research. This preliminary project schedule is shown below:

A.	Submit Final Report to Region Nine	1/9/2015
B.	Solicit and Obtain Project Financing	1/9/2015 – 6/1/2015
C.	Announce Open Season for Nonbinding Agreement	3/1/2015 – 4/1/2015
D.	Design, Routing, Survey, Mapping	3/1/2015 – 6/1/2015
E.	Public Project Announcement	3/31/2015
F.	FERC Application Pre-Submittal	4/1/2015
G.	Begin ROW Acquisition and Environmental Studies	4/1/2015
H.	FERC Application Submittal	9/1/2015
I.	Permits Submitted and Approved	10/1/2015
J.	FERC Application Approval	2/1/2016
K.	Contractor Bidding and Negotiation	2/1/2016 – 3/1/2016
L.	Construction and Testing	4/1/2016 – 3/31/2017
M.	In-Service	4/1/2017

II. CURRENT SITUATION

A. OVERVIEW

Advances in horizontal drilling technologies and hydraulic fracturing processes have made the Appalachian Basin one of the leading regions in the United States for natural gas exploration and production. However, the Eastern Panhandle region of WV has not shared in the natural gas industry growth experienced by other regions of WV, primarily the northern half of the state, as a result of the development of the Marcellus and Utica Shale formations. Both of these prolific natural gas-bearing shale formations are located west of the Region Nine area. There are no known proved natural gas reserves or economically-developable gas-bearing formations in the eastern panhandle area.

As a result, compared to other regions of WV, the eastern panhandle has a much lower natural gas utilization rate primarily because it is not located in a natural gas producing region. Because of this, other energy sources such as electricity and propane are the primary energy sources of choice for residential, commercial and industrial users.

The Eastern Panhandle region of WV is one of the top economic growth engines in WV. However, continued economic growth is largely dependent upon having natural gas service available to meet residential, commercial and industrial demand. Currently, natural gas service is only available in southern Berkeley County, parts of the greater Martinsburg area and one site in Jefferson County, the former Eastman Kodak plant.

The lack of natural gas service in the Eastern Panhandle has become a limiting factor in the continued commercial and industrial growth of the region. Businesses and industries that would have otherwise considered the region for expansion and development have located in other regions and states as a result of the lack of natural gas availability and limited prospects for improving the situation in the near-term. Homeowners seeking natural gas utility service have limited options as well.

B. EXISTING NATURAL GAS SUPPLY AND INFRASTRUCTURE

The natural gas supply that is currently available in the Eastern Panhandle region is brought in solely via pipeline to the LDC operated by MGCWV, which is headquartered in Charleston, WV.

MGCWV has been granted the sole franchise to distribute natural gas to residential, industrial, commercial and institutional customers in Berkeley and Jefferson Counties by the WVPSC. MGCWV's rates and operations are regulated and monitored by the WVPSC.

MGCWV feeds the LDC system with natural gas acquired on the spot market off-system. Purchased gas is then transported into northern Virginia via Columbia Pipeline Group's "WB" (also known as "VB5") interstate pipeline that commences near Broad Run, WV, and terminates near Baltimore, MD.

Delivery of natural gas from WB is delivered first to Washington Gas & Light ("WGL") via tap on WB near Clearbrook, VA, and then delivered by WGL to MGCWV at the WV/VA border.

MGCWV operates the natural gas pipeline that transports the natural gas from the interconnect with WGL at the WV/VA state line. This pipeline runs approximately 13 miles through southern Berkeley County to its terminus point northeast of Martinsburg.

This pipeline was acquired from WGL by MGCWV in 1998. The pipeline is currently limited to 426 pounds per square inch gauge ("PSIG"); line pressure is reduced to 50 PSIG when the gas enters the plastic low pressure distribution system.

The LDC gas infrastructure is composed of approximately 730,000 linear feet ("LF") or 138 miles of distribution main natural gas pipeline, split into 260,000 LF (49 miles) of steel pipeline and 470,000 LF (89 miles) of plastic pipeline. This system is situated in the general Martinsburg regional area.

The LDC trunk line consists of 6" and 8" steel pipe which is generally located within the Martinsburg city limits. It has an operating pressure of 426 pounds per square inch ("PSI") and a peak hour load rating of 675 thousand cubic feet ("MCF") per hour, or 16.2 million cubic feet per day ("MMCFD").

The system currently operates at approximately 85% of maximum capacity, which is a safe and reliable capacity rating. However, there is little to no opportunity for increasing capacity given the system's current operating capacity, system utilization and load.

MGCWV has been granted a franchise to also provide natural gas service to Jefferson County by the WVPSC. However, the only natural gas service that extends into Jefferson County serves just one facility, the lithographic plate manufacturing plant owned by Eastman Kodak Co., which is situated just inside the border with Berkeley County. This plant is not currently in operation and as of October 2014 was listed as being for sale. No other locations within Jefferson County have natural gas service at the time that this study was performed in 2014.

A Pre-Feasibility Analysis was performed for the Jefferson County Development Authority by Moreland Advisors, Inc. in December 2013 (see Project Documents, "Jefferson County Natural Gas Line Extension Pre-Feasibility Analysis"). This report discussed the historical and current natural gas supply issues facing Jefferson County and the challenges and constraints that would need to be addressed in order to bring substantial gas supply into Jefferson County.

The Pre-Feasibility study proposed utilizing the natural gas line that extended from Martinsburg to the former Eastman Kodak as a feed line into Jefferson County. However, this line is not large enough to offer much, if any, additional capacity into Jefferson County. Further, the existing MGCWV LDC that would feed this spur line does not have the capacity to handle the additional volumes that would be needed to support new industrial and commercial growth in Jefferson and Berkeley Counties.

C. CUSTOMERS

Region Nine does not directly or indirectly serve customers with gas service; natural gas utility service is provided solely by MGCWV and it is assumed that MGCWV would be the sole utility providing new residential and commercial gas service in the event a new pipeline would be constructed.

MGCWV's eastern panhandle LDC operates almost exclusively within the borders of Berkeley County, serving a customer base located primarily in and around the greater Martinsburg area. The LDC supplies natural gas to approximately 5,600 customers, split between 4,600 residential and 1,000 industrial, commercial and institutional customers.

For residential customers, it is assumed that only new home developments would be the primary users of residential natural gas service.

Research indicated that most existing homeowners whose homes used other energy sources besides natural gas, e.g. propane or electric, would likely not switch to natural gas even if it was available. The primary reason is that the cost to switch from one energy source to another and the related cost of retrofitting or replacing existing appliances would be prohibitive. Also, new infrastructure would need to be installed in existing neighborhoods, which is costly and time-consuming.

Residential developments with existing propane distribution systems would be difficult to convert to natural gas due to the logistical challenge of all users being prepared to convert their homes and appliances from propane to natural gas at the same time. Existing propane distribution system hardware and piping would likely require full replacement due to the differences in natural gas (methane) and propane characteristics, pipeline pressures, transport standards, physical properties and building/safety code requirements.

Commercial customers may be willing to consider natural gas service depending upon physical proximity to gas utility service and cost to convert, among other factors such as long term viability, regulatory pressures, and commodity costs.

Numerous entities have approached members of the Region Nine committee and stated that if natural gas was available as an energy source they would prefer to convert their facilities to be powered by natural gas. The Pre-Feasibility Study indicated that the Jefferson County School Board would like to phase their school buses from diesel-powered vehicles to natural gas powered vehicles. The availability of natural gas would factor heavily into the ease of the School Board's decision to convert their existing fleet. Several businesses in the Burr Business Park also voiced interest in converting their facilities to natural gas if service becomes available. Finally, University Healthcare is considering a replacement hospital for the Jefferson Medical Center. Getting natural gas to this new building is a key part of meeting the Joint Commission's accreditation requirement that the facility have two separate sources of energy.

D. NEED FOR PROJECT

The Region Nine area currently has limited access to natural gas service. The area being studied is located in and around the greater Martinsburg area in central Berkeley County as well as the Route 9 corridor in western Jefferson County. At the present time, there is no natural gas service in Morgan County and only one single service point located within Jefferson County.

The lack of natural gas service has severely limited the potential business and industrial growth opportunities in the area. Having natural gas service in the areas of the major existing and planned industrial parks would help to attract new industries to the area, which will in turn will create more jobs, enhance the local and regional economy, and stimulate sustainable growth in the region. Natural gas service will also allow residential developers in the region to offer natural gas as a viable, and potentially cheaper, alternative to the current propane tank systems and electrical grids throughout the region. This in turn will enhance the resurgence of residential growth and construction of the planned communities in the region.

III. FUTURE SITUATION

A. PROPOSED OUTCOME

Based on interviews and information gathered for this study, the project team determined that the best solution for expanding natural gas service capacity in the eastern panhandle of WV would be to construct a natural gas pipeline of adequate size and capacity to effectively support anticipated demand over the twenty-year period from 2015 to 2035.

This pipeline would most likely be a spur line fed from an interstate natural gas pipeline located within reasonable proximity of the eastern panhandle to minimize construction and operating costs while maximizing capacity and throughput. For purposes of the study, the terminus of the pipeline would be located at a point where the Berkeley County/Jefferson County line intersects with WV State Route 9.

Funding for the project would most likely come from a combination of sources comprised of public and private financing to be discussed later in this document.

Operation of the pipeline would be the responsibility of the owner, who is undetermined at this point in time.

B. ASSUMPTIONS USED TO DETERMINE DEMAND

The project team reviewed current gas growth demand in other parts of WV and growth trends in the Region Nine area to compile a model of anticipated natural gas demand in the eastern panhandle region.

The team assumed that projected population and industry growth would create an increase over the current level of natural gas demand (16.2 MMCFD) in the Region Nine area ranging from 35 MMCFD to 65 MMCFD over the twenty-year period from 2015 to 2035. This demand growth estimate was then utilized to design a natural gas pipeline that would be appropriately sized to support the projected growth in natural gas use by residential and commercial customers.

A demand growth increase of 35-65 MMCFD over the twenty-year period would equate to an approximate range mix of residential, commercial, industrial and/or power generation facilities as shown below on Table One, "Range of Gas Demand Growth Assumptions:"

Table One – Range of Gas Demand Growth Assumptions

Facility Type	35 MMCFD Growth	50 MMCFD Growth	65 MMCFD Growth
Residential Units/Homes	1,575 - 1,925	3,600 – 4,400	6,750 – 8,250
Commercial Buildings	45 – 55	81 – 99	113 – 138
Industrial Plants	6 – 8	10 - 12	11 – 13
Power Generation	0	0	0
Total Approximate Burn	34.2 MMCFD	55.6 MMCFD	65.5 MMCFD

C. GENERAL CONSIDERATIONS REGARDING PIPELINE CONSTRUCTION

For any pipeline project, there is a long list of considerations that must be evaluated as part of the overall decision to move forward by the stakeholders. These considerations are listed below in no particular order. Considerations include but are not limited to:

1. FERC jurisdiction and oversight
2. Federal, state and local regulatory climate
3. Existing and potential customer demand
4. Constructability
5. Availability of reliable gas supply
6. Impact on landowners and existing land use
7. Public safety
8. Environmental impact
9. Impacts to historic and cultural sites
10. Project cost

IV. ALTERNATIVES

A. GENERAL

Region Nine is seeking to improve its industrial growth via improvements to the natural gas distribution system in the area. The region wants to increase the amount of natural gas available to the area by expanding the level of infrastructure that is necessary to support large industrial users.

Improvements to the existing system are limited because the current system was constructed and is operated mainly as a distribution system. Gas distribution systems are typically limited in pressure to properly disburse natural gas at a rate which is useful to the customers.

B. OPTIONS FOR GAS SERVICE

With regard to the general considerations noted above in Section III, C, "General Considerations for Construction of a Natural Gas Pipeline," the project team researched the availability of natural gas in the general region surrounding the Region Nine area.

Interstate natural gas pipelines are located to the north, east and south of the area. The project team assessed the universe of alternatives and identified three primary routing options for natural gas service: The North Option, The East Option and The South Option.

Each of the three options are listed below and detailed further in the section.

For purposes of consistency and standardization, each of the three Options is designed to terminate at a location defined as the intersection point between Route 9 and the border between Jefferson and Berkeley Counties. For identification purposes in this study, this point will be called the "Pipeline Terminus."

Option 1 – The North Option

The North Option is a natural gas pipeline that would be constructed to connect the Pipeline Terminus to a natural gas pipeline known as Pipeline 1804 (the "Mason-Dixon Pipeline") that is located north of the WV eastern panhandle. The Mason-Dixon Pipeline is owned and operated by Columbia Pipeline Group ("CPG"). The North Option would be a 16" welded steel pipeline that would run approximately 31.5 miles from the Mason-Dixon Pipeline to the Terminus Point, depending upon final routing.

As the team researched the issue of capacity on this pipeline, it determined that additional incremental capacity on the Mason-Dixon pipeline was not adequate to support the longer-term demand of the eastern panhandle region, thereby rendering the North Option unfeasible at this time. However, capacity turnback could potentially result in adequate pipeline capacity at some point in the future.

Advantage(s):

1. No compression facilities would be required, which minimizes construction and operating costs.
2. The pipeline could be potentially tapped at a future point to augment the existing LDC system. Of the three routes, it is routed nearest to Cumbo Yard, which is the northernmost extent of MGCWV's existing gas service.

Disadvantage(s):

1. The Mason-Dixon Pipeline is currently fully-subscribed and has no additional incremental transportation capacity available, which rules it out as an option for gas supply to the eastern panhandle.

Anticipated Cost:

At an average all-in cost per mile of \$3,200,000 including a 25% contingency, the North Option would cost approximately \$100,800,000 to design and construct.

Option 2 – The East Option

The East Option is a natural gas pipeline that would be constructed to connect the Pipeline Terminus to a natural gas pipeline located east of the WV eastern panhandle known as PL-1 that is owned and operated by Dominion Transmission, Inc. ("DTI"). DTI recently upgraded PL-1 to increase its capacity to support the reclassification of Dominion's Cove Point LNG facility on Chesapeake Bay in MD from an import facility to an export facility. The East Option would be a 16" welded steel pipeline that would run approximately 21.5 miles from the PL-1 Pipeline to the Terminus Point, depending upon final routing.

Unfortunately, further research into the issue of capacity availability on this pipeline revealed that no additional incremental capacity remained, thereby eliminating the East Option as a potential route. However, like the North Option, the possibility of future capacity turnback by other shippers could result in available pipeline capacity at some future point.

Advantage(s):

1. No compression facilities would be required, which minimizes construction and operating costs.
2. At approximately 21.5 miles in length, the East Option is the shortest and least-expensive pipeline option.

Disadvantage(s):

1. The PL-1 Pipeline is currently fully-subscribed and has no additional incremental transportation capacity available, which rules it out as an option for gas supply to the eastern panhandle.

Anticipated Cost:

At an average all-in cost per mile of \$3,200,000 including a 25% contingency, the East Option would cost approximately \$68,800,000 to design and construct.

Option 3 – The South Option

The South Option is a natural gas pipeline that would be constructed to connect the Pipeline Terminus to the WB Pipeline that is located south of the WV eastern panhandle in VA. The W-B Pipeline is owned and operated by Columbia Pipeline Group (“CPG”). The South Option would be a 16” welded steel pipeline that would run approximately 33.0 miles from the W-B Pipeline to the Terminus Point, depending upon final routing.

Advantage(s):

1. The gas supply source for the South Option, the W-B pipeline, is being expanded via the W-B Xpress Project. The expansion will increase capacity to a level that could support additional throughput demand of 35-65MMCFD.
2. The possibility of using backhaul arrangements would allow additional incremental volumes of gas to meet growing demand.
3. No compression facilities would be required, which minimizes construction and operating costs.

Disadvantage(s):

1. The approximately 33-mile long South Option is the longest of the three options and the most expensive option.
2. Unlike the Northern Option, the Southern Option roughly parallels the existing WGL/MGCWV supply pipeline, which does not allow system augmentation at the northernmost point of MGCWV’s existing system.

Anticipated Cost:

At an average all-in cost per mile of \$3,200,000 including a 25% contingency, the East Option would cost approximately \$105,600,000 to complete.

C. PORTABLE LNG/PEAK SHAVING FACILITY OPTION

The Portable LNG/Peak Shaving Facility option is not a viable alternative to having full-scale reliable natural gas volumes delivered via pipeline. A Portable LNG/Peak Shaving facility may

still be beneficial as a "peak-day" service to augment existing natural gas service on cold days when the existing LDC system is at maximum capacity.

D. DO NOTHING OPTION

The "Do Nothing" option does not meet the objectives of the study and is only a fallback position if none of the other options are chosen for action by the stakeholders.

The "Do Nothing" option foregoes construction of a pipeline entirely. As a result, the region will continue to grow at a certain level, but it will not have as great a potential to bring in medium to large-sized industrial/commercial firms or residential growth as it would have otherwise had with an expanded level of natural gas service.

V. PLAN RECOMMENDATION AND FUNDING SCENARIOS

A. SELECTION CRITERIA

Regardless of available capacity, the project team considered each of the three primary pipeline options to determine the “best fit” for the region. Critical success factors and other criteria utilized in the review are listed below (in no particular order):

1. Constructability
2. Project financing
3. Total cost to build and operate
4. Availability of materials and labor
5. Impact to environment
6. Land and rights-of-way
7. Terrain and ease of construction
8. Projected population and economic growth and related gas demand
9. Pipeline size
10. Federal, state and local regulatory environment
11. Support of local residents, industry and commerce
12. Impact on cultural history
13. Projected economic growth of the region
14. Needs of residents and commercial/industrial entities
15. Existing natural gas service and customers
16. Ability to tie-in to existing natural gas supply location(s)

B. DETERMINATION OF BEST OPTION

Using these criteria, the project team ranked the three pipeline options in order of the best fit for the region. Given the data, circumstances and pipeline capacity constraints at the point in time this study was completed, the project team determined that the option that best suits the needs of the eastern panhandle of WV is Option 3, the South Option.

Besides Option 3, there is no other option available for natural gas service in the demand volumes anticipated by the region unless one of the other pipelines had capacity that would become available at some point in time in the near future.

The South Option ties into CPG’s W-B Pipeline. This pipeline is targeted for a major expansion soon as the “W-B Xpress Project.” CPG made formal application with the FERC on 11/1/2013 to request a Certificate of Need to expand capacity and throughput of the W-B Pipeline. CPG’s board of directors approved the project for funding in October, 2014. The project is expected to begin construction within 12-18 months following regulatory approvals.

Utilizing the W-B Pipeline as the source of natural gas for an expanded gas infrastructure makes sense on a standalone basis, notwithstanding the fact that the other two potential sources of natural gas identified by the project team, the North Option (CPG’s Mason-Dixon Pipeline) and the East Option (Dominion’s PL-1 Pipeline) are at or near full capacity and unable to contract for

additional incremental capacity in the volumes necessary to support anticipated demand in the eastern panhandle of WV.

Like the North Option and the East Option, the additional capacity that is being built into the W-B Pipeline is already fully subscribed by other natural gas shippers. However, the difference is that incremental capacity can still be made available by CPG to the eastern panhandle via backhaul arrangement. A backhaul is a "paper transport" of natural gas by displacement against the flow on a single pipeline, so that the natural gas is redelivered upstream of its point of receipt.

Finally, at this early point in the W-B Xpress Project, CPG could still conceivably tweak the model to squeeze some additional excess capacity out of the system that could be used to support expansion in the eastern panhandle.

By virtue of (1) the availability of capacity on W-B, the upcoming expansion via W-B Xpress, (2) the opportunity to add capacity via backhaul, the possibility of fine-tuning W-B Xpress for additional incremental capacity, and (3) the potential for support by CPG, the South Option is the best option at this time, given all supply and demand constraints, for expansion of natural gas service in WV's eastern panhandle region.

C. PROJECT FINANCING OPTIONS

New pipeline construction projects seem to be all over the place in the gas-rich Marcellus and Utica gas regions. In fact, at the time this document was prepared, there are at least five major interstate pipelines under review or construction in the north, west, southeast and central regions of West Virginia. The region is exceptionally capacity-constrained and needs additional takeaway capacity built as soon as possible to get all the shale gas being produced in WV, OH and PA to market points in the northeastern, eastern and southern USA as well as southern Canada.

However, the situation in the eastern panhandle is different. The region is looking for additional regional gas supply. Most pipelines under design or construction are being designed to transport natural gas from the production region to residential, industrial and/or commercial customers located at points where existing and known future demand will allow amortization of the cost of the pipeline to be spread across many customers over time, which will pay the expense of the pipeline cost and net the owner/operator a reasonable rate of return.

The largest hurdle facing the concept of a new pipeline being constructed to bring additional gas supply into the eastern panhandle is financing. With the price tag of this proposed project estimated to exceed one hundred million dollars, a pipeline operator would want to have as much of the pipeline's capacity sold as possible so it can cover the capital cost of construction and the operating and maintenance expense of running it once it starts transporting gas. Government assistance is also a worthwhile option to consider.

Midstream Operator Financing

Meetings with multiple midstream operators indicated that they would have interest in a project like this if the pipeline capacity was at or near fully subscribed. However, none were interested in it knowing that full capacity would likely not be reached until some unknown point in the future. For this reason, the project team felt that a traditional midstream company would not be a good fit for making this project a reality.

Interstate Pipeline Operator Financing

After identifying the major existing pipelines in the region and learning more about which may have available capacity, the project team reached out to CPG, operator of two of the three pipelines targeted as sources of natural gas supply for the eastern panhandle.

A representative from the Thrasher project team familiar with the project and the CPG organization met with CPG's Chief Commercial Officer. The meetings were conducted for the purpose (1) of determining if CPG had available capacity to provide incremental gas service in a location near to the eastern panhandle and (2) to gauge CPG's interest in working with the regional government and development entities in the area to assist in the development, construction and operation of a natural gas pipeline. As a result, the project team learned that CPG would indeed be interested in the project.

Specifically, "In short, [CPG] would be willing to work with [the Thrasher project team and Region Nine] to ensure that the Eastern Panhandle markets could be served. As you would expect, CPG needs to earn a reasonable return on any investments to make this happen. [CPG] indicated a willingness to work creatively with us to serve the market."

Further, "We also discussed CPG's willingness to participate in and operate a lateral to serve the Eastern Panhandle markets. Again, [CPG] indicated a willingness to creatively price the lateral so that CPG earns a reasonable return. The concept of property tax abatements was appealing to CPG given the magnitude of investment it continues to make in West Virginia. [CPG] cautioned, however, that CPG has many other investment opportunities and any investment would need to be competitive with alternatives."

Finally, "Nevertheless, I believe there is a creative solution that would involve state regulatory support, tax abatements and market development."

PILOT Arrangement

A meeting was held on October 31, 2014 between the project team and other infrastructure professionals to discuss financing options for this proposed project. The key takeaway was an option for infrastructure financing known as a PILOT Agreement. PILOT is an acronym for "Payment In Lieu Of Tax."

PILOT arrangements are routinely employed in West Virginia to reduce or eliminate ad valorem property taxes as an incentive to attract location of, or investment by, industrial or commercial businesses.

In a typical PILOT arrangement, a project sponsor conveys real or personal property, or both, to a governmental entity. The governmental entity holds title to such property, and then leases the property back to the private entity. Since government-owned property is generally exempt from property taxation, the private entity is able to reduce its property tax burden by pursuing the sale/leaseback transaction and agreeing to make payments in lieu of taxes.

The West Virginia Economic Development Authority ("WVEDA") is the preferred entity to use for the sale/leaseback arrangement, since the WVEDA's authorizing legislation clearly states that such lease arrangements are considered to be for a "public purpose" and because of the experience that the WVEDA has with such arrangements.

The key parties to work with in connection with a PILOT Agreement are the County Commission of the county where the project will be located and the WVEDA's executive director and staff.

Because of its vast investment in natural gas infrastructure, gas storage fields and facilities in the state of WV, CPG has a keen interest in learning more about how a PILOT arrangement may be utilized to assist in building a natural gas pipeline into the eastern panhandle of WV. A project like this will require input, engagement and involvement from many sources, including CPG, WVEDA, Region Nine, Thrasher, the local economic development authorities and many others.

VI. ENVIRONMENTAL INFORMATION

A. AREA DESCRIPTION

Construction for the proposed project will take place primarily on private lands. Permanent easements will need to be acquired for the proposed gas pipeline right of way through all landowners associated with the route of the proposed project.

B. AIR QUALITY

Air quality will not be permanently affected by the proposed gas pipeline project. Temporary impacts due to dust may temporarily affect portions in the immediate vicinity of the construction, but this can be limited with proper dust control measures.

C. WATER QUALITY

Water quality will not be affected by the proposed gas pipeline project.

D. TRANSPORTATION

Transportation will only be negatively affected during the construction of the proposed pipeline during crossings of roadways.

Transportation could conceivably be positively impacted due to the availability of natural gas and the potential for natural gas refueling stations to be constructed to serve natural gas vehicles.

E. NOISE

There will be noise generated from equipment during the construction of the proposed natural gas pipeline. This noise will be limited to the immediate areas of construction as well as occurring only during construction working hours. Any temporary noise pollution due to construction should be low in decibel volume and not harmful in any way.

F. HISTORIC/ARCHAEOLOGICAL PROPERTIES

Prospective historic areas and archaeological sites will need to be investigated for potential adverse impacts prior to commencement and final routing of the project.

G. WILDLIFE AND ENDANGERED SPECIES

Potential endangered species impacts will require investigation for adverse impacts prior to project startup and final routing of the project.

H. ENERGY

New energy supplies are not required for the construction of this project. This proposed project will supply Jefferson and Berkeley Counties with a new source of natural gas which in turn will give residents and businesses in Jefferson County a new source of energy, and in Berkeley County, additional volumes of natural gas.

I. CONSTRUCTION

Construction for the proposed gas pipeline will be primarily within the permanent easement acquired from private landowners. Additional rights-of-way may need to be acquired from various local and state agencies.

The proposed gas pipeline installation will be performed with minimal construction equipment as is necessary to clear rights-of-ways, excavate trenches, lay and cover pipes, and restore disturbed areas. All construction will conform to the Standards and Specifications of the West Virginia and Virginia Erosion and Sediment Control handbooks and/or other regulatory and oversight entities as required.

J. FLOOD ELEVATION

The proposed gas pipeline may fall within the limits of various flood plains. Appropriate permits will be required. However, since this project will involve the construction and burying of a welded steel natural gas pipeline, no adverse impacts are anticipated. The pipeline rights-of-way would be returned to the original contour of the land during the restoration process.

K. TOXIC SUBSTANCES

No toxic, hazardous, or radioactive substances over and above what is normally known and utilized in welded steel pipeline construction will be utilized or produced by this proposed improvement project.

L. MITIGATION

No mitigation measures are currently anticipated for construction of the proposed gas pipeline.

M. PERMITS

This proposed project will require the pipeline owner(s) to obtain a multitude of permits, including, but not limited to, the following regulatory agencies:

1. U.S. Federal Energy Regulatory Commission ("FERC")
2. U.S. Army Corps of Engineers ("USACE")
3. U.S. Fish and Wildlife Service ("USFWS")
4. WV Department of Environmental Protection ("WVDEP")

5. WV Division of Natural Resources ("WVDNR")
6. WV State Historic and Preservation Office ("SHPO")
7. WV Division of Highways ("WVDOH")
8. VA Department of Environmental Quality ("VADEQ")
9. MD Department of the Environment
10. Other WV, VA, and MD state and local permits as required by law for pipeline construction and operation.

N. UNAVOIDABLE ADVERSE IMPACTS

Construction of any pipeline project has certain temporary, unavoidable adverse environmental impacts. These impacts are temporary and are listed as follows:

1. Land disturbances necessary to construct pipelines. This land disturbance has the potential to create minor soil erosion during the construction period. All Best Management Practices will be followed during construction. This will ensure any soil erosion is limited during the construction period.
2. The construction process will create dust, exhaust emissions and noise from the equipment required to construct the project. These emissions will be managed so they are at a minimal level and will be limited to the area directly associated with active construction zones and activities.
3. Vegetated areas will be disturbed during construction of the natural gas pipeline. All disturbed areas will be reclaimed and reseeded with local vegetation to ensure no long-term adverse effects.

O. RELATIONSHIP BETWEEN TOTAL SHORT-TERM USES AND LONG-TERM PRODUCTIVITY

This project's short-term adverse impacts would be limited to those listed in the unavoidable adverse impact section. These short-term impacts would create some short-term productivity loss to the environment, but would have no bearing on the long-term effect on wildlife, wetlands, or historic/archeological areas. The project is anticipated to produce long-term productivity improvements in the project area.

P. IRREVERSIBLE AND IRRETRIEVABLE COMMITMENTS OF RESOURCES

The project would require irretrievable resources necessary for the construction of the system upgrades. These resources would include concrete, fuels, machinery, piping materials, and steel. The irreversible and irretrievable commitment of resources for the proposed project would not have a significant detrimental effect on the United States' vital resources.

Q. PARKS, RECREATIONAL AREAS OR OPEN SPACES

The proposed project will not have any adverse impact on parks, recreational areas or open spaces.

R. GROUNDWATER

Due to the minimal depth (10' or less) required to bury a welded steel gas pipeline, there should be no effect on the quality of groundwater in the area.

VI. PROJECT SUMMARIES

A. PROJECT FEASIBILITY SUMMARY

Region Nine is investigating the feasibility of the construction of additional natural gas infrastructure within Jefferson and Berkeley Counties.

Three options have been identified by the project team: the North Option, the East Option and the South Option. Of the three, the South Option is the best choice, primarily because it is the only option that would have capacity available within the project timeframe.

This project would consist of the installation of approximately 33 miles of ANSI 600 steel pipeline from a location in Virginia on the existing Columbia W-B/VB5 pipeline. This pipeline would then travel north into West Virginia to a terminus point located at the intersection of Route 9 and the Berkeley and Jefferson County border. A metering and regulation (M&R) skid will be installed at the tap location on the existing Columbia line as well as the at the terminus point stated above.

B. PROJECT COST SUMMARY

The projected cost of the South Option, including a 25% contingency, is approximately \$106,000,000. See Table Two, "Breakdown of Cost for New Pipeline – SOUTH OPTION – 33.0 Miles," shown on following page:

Region 9 Gas Feasibility Study

Breakdown of Cost for New Pipeline - SOUTH OPTION - 33.0 Miles

16" ANSI 600 Built to Class III Transmission Line Standards

Pipeline Construction Component	16" Pipeline Average Cost/Mile \$	Total Estimated Cost/Component \$
Environmental Studies	\$ 900	\$ 29,700
Endangered Species Studies	800	26,400
Route Preliminary Surveys	1,400	46,200
Courthouse Work on ROW	4,500	148,500
Landman Activities	15,000	495,000
ROW Payments	132,000	4,356,000
ROW Special Conditions Burden	2,500	82,500
Crop Damage	24,250	800,250
Timber Damage	40,000	1,320,000
Directional Boring Design	1,250	41,250
Directional Boring Permits and Engineering	1,500	49,500
Directional Boring	245,000	8,085,000
Pipe Design	1,000	33,000
Cathodic Protection Design	1,250	41,250
Ground Beds and Rectifier Design	750	24,750
Rectifier Site Acquisition	1,500	49,500
Interference Testing	1,500	49,500
State Permits	4,500	148,500
Stream Waterways Permits	5,500	181,500
Highway Crossing Permits	5,500	181,500
Railroad Crossing Permits	7,500	247,500
Wetlands Delineation	1,500	49,500
Pipe Procurement	575,000	18,975,000
Transportation	10,000	330,000
Installation	675,000	22,275,000
E&S Permits	4,500	148,500
E&S Measures	5,000	165,000
Pressure Testing	5,500	181,500
Dry Out	4,200	138,600
Rock Clause	145,000	4,785,000
Bedding Material	45,000	1,485,000
Rock Shield	20,000	660,000
Fittings, Valves, Risers, Pig Launchers, etc.	275,000	9,075,000
Meters	250,000	8,250,000
Damage Prevention/Line Marking	10,000	330,000
Compliance Related Costs	35,000	1,155,000
Commissioning/Purging	1,200	39,600
Contingencies at 25%	640,000	21,120,000
Total	\$ 3,200,000	\$ 105,600,000

R&A, Inc. 2014

C. SCHEDULE

The schedule for this project is to be determined.

D. LAND & RIGHTS-OF-WAY

This proposed project involves both public and private easements for construction of the proposed natural gas pipeline. The majority of the pipeline would be located through private lands requiring easements to be acquired by and assigned to the Owner. There would be sections which will require public easements such as through public road rights-of-way as well as other potential areas, depending upon final route, such as the Appalachian Trail Corridor and various stream crossings.

During the design phase, final alignment will be identified and the exact number and lengths of private and public rights-of-way will be defined. Permits for the public rights-of-way will be obtained from the appropriate agencies and agreements with the private landowners will be executed prior to construction.

E. PUBLIC BENEFIT

There are numerous public benefits that will come as a result of this project. The foremost benefit is the availability of an adequate and safe natural gas supply to the region, which up until now has only had natural gas in limited quantity and availability. By design, the project will enhance the natural gas infrastructure in the area and create additional supply of natural gas, which will in turn attract new business and industry to the region. New business and industry will create fresh and diverse employment opportunities for local residents and generate new incremental tax income for state and local governments. Additionally, residents seeking other sources of energy for their homes will have natural gas as an option. The construction of the pipeline itself will create a one-time boost to the local economy while the project is being constructed. All in all, the project will have a direct positive impact on the region. Overall, the quality of life would be enhanced in the region as a result of building this project.

F. EVIDENCE OF COMPLIANCE

Region Nine has complied with West Virginia Code §5G-1-1 for procurement of engineering services for the generation of this report. The procurement information has been provided in the Section VII, "Project Documents", of this report.

VII. PROJECT DOCUMENTS

- A. Jefferson County Natural Gas Line Extension Pre-Feasibility Analysis**
- B. Eastern Panhandle Natural Gas Expansion Feasibility Study - Procurement Guidelines**
- C. Eastern Panhandle Natural Gas Expansion Feasibility Study - Scope of Work**
- D. Engineering Service Agreement between Region Nine and The Thrasher Group**
- E. Economic Impact of a New Natural Gas Pipeline in Berkeley and Jefferson Counties**
- F. New Customer Matrix for Peak Daily Flowrates**
- G. Mountaineer Gas Company of WV - Martinsburg System Overview**
- H. Breakdown of Cost for New Pipeline – NORTH OPTION – 31.5 Miles**
- I. Breakdown of Cost for New Pipeline – EAST OPTION – 21.5 Miles**
- J. Memo from Steptoe & Johnson - Payment in Lieu of Tax (“PILOT”) Arrangements**
- K. Map 1 – Region Nine Overall Project Map**
- L. Map 2 – North Option Map**
- M. Map 3 – East Option Map**
- N. Map 4 – South Option Map**
- O. Map 5 – MGCWV System and Existing Industrial and Business Parks**

Jefferson County Natural Gas Line Extension Pre-Feasibility Analysis

**Jefferson County Natural Gas Line
Extension**

Pre-Feasibility Analysis

Prepared for:

Jefferson County Development Authority

Prepared by:

Moreland Advisors, Inc.



MORELAND
ADVISORS

December 2013

Project Background:

In September 2013, the Jefferson County Development Authority asked Moreland Advisors to examine the pre-feasibility of extending natural gas service into Jefferson County, WV. The purpose of this analysis and report was to uncover any significant, insurmountable obstacles to the project moving forward. It is intended to be a precursor to a more detailed "feasibility report" which would perform a more comprehensive examination of the economic and technical issues relative to this project.

Jefferson County has long recognized the importance of providing its citizens and commercial base with the option for natural gas service. As early as in the 1990's, the concept of extending natural gas further into the county had been discussed numerous times. Each time the project was unable to demonstrate the favorable economic conditions that would prove its feasibility and the efforts lost momentum. Since that time, several conditions have changed which now make the project have a much higher likelihood of demonstrating its feasibility.

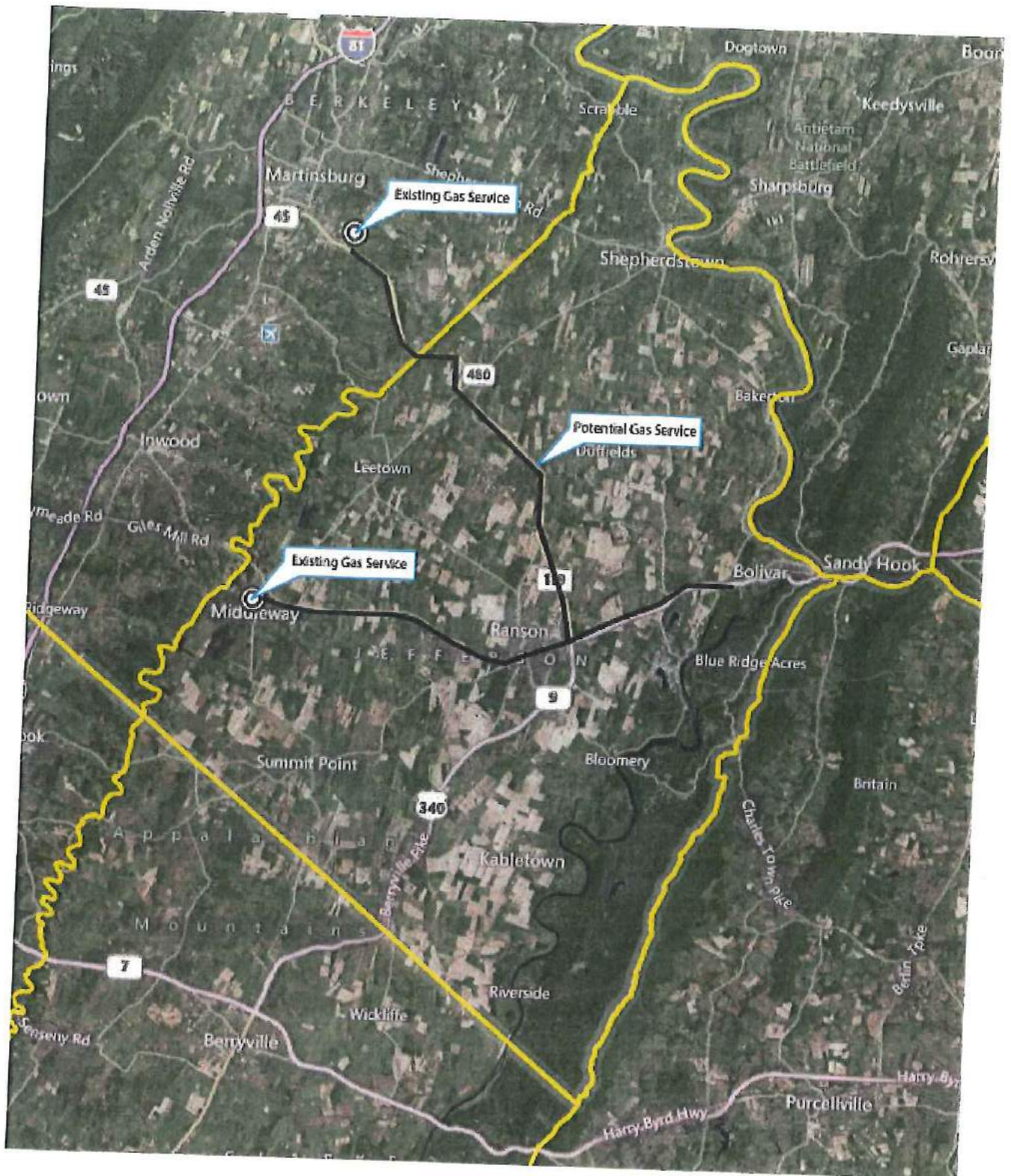
On the supply side, the United States is in the beginning stages of a shale gas revolution. Horizontal drilling and hydraulic well stimulation techniques ("fracking") have made natural gas extraction from shale formations economically feasible. This has dramatically increased the supply of natural gas in the country and driven commodity gas prices down to historically low levels. West Virginia's proximity to the Marcellus shale formation places it squarely in the heart of this once in a generation transformation.

At the same time, the lower commodity prices have caused demand for natural gas service to rise. Jefferson County has been fortunate to have several large potential gas users either locate in the area, or plan to expand their existing facilities. These large, "anchor tenant" users are critical to demonstrating the potential for a return on the investment necessary to bring gas service to the area.

Current Conditions:

Mountaineer Gas Company holds the franchise to provide natural gas to Jefferson County, West Virginia. Currently, the County has only one facility that receives natural gas service. That facility is the 270-acre plant owned by Eastman Kodak Co., located just inside the border with Berkeley County. No other locations within the County are currently served by natural gas service.

On the northern end of Jefferson County, along Route 9, the Eastern Regional Jail Complex in Berkeley County has existing natural gas service. This facility is located approximately 9 miles outside of Jefferson County and would be the most likely starting point for a service line extension into Jefferson County.



It is likely that it may be necessary to extend both of these existing gas lines into Jefferson County (in a phased approach) to get the required gas volumes and pressures to the correct geographic areas.

Public Sector Meetings:

On November 6, 2013, Moreland conducted a group meeting with several of the public sector stakeholders for this project. Attending were representatives from:

- Jefferson County Development Authority
- Jefferson County School Board
- Jefferson County Public Service District
- City of Charles Town, WV
- City of Ranson, WV
- Region 9 Planning and Development Council

All of the attendees recognized the critical nature of the project and the economic development impact it could have on the County and the cities within. We discussed that this project was also coming at an opportune time as the County works through the development of its Comprehensive Plan. Access to natural gas as a result of this project has the potential to meaningfully alter the development patterns of the County and will certainly need to be considered as the Comprehensive Plan progresses.

The public sector will have a unique role in the project as they will also be potential users of the gas service. The State has mandated that municipalities begin to shift their vehicle fleets to natural gas. At the meeting, we discussed with the Jefferson County School Board their efforts to convert their bus fleet to natural gas. Currently, they consume approximately 7,000 gallons of diesel fuel a week to power their fleet of 120 school busses. As the School Board considers a new bus maintenance facility and begins to phase into alternatively fueled busses, access to natural gas will figure prominently in their decision process.

In addition to the potential to serve the School Board's bus fleet with natural gas, it is likely that the gas line extension will be sited close enough to reasonably connect several existing school facilities. Those school facilities include the T.A. Lowrey Elementary School, Driswood Elementary School, Wildwood Middle School and Jefferson High School. The natural gas demand from converting these educational facilities could go a long way in helping demonstrate the feasibility of this project. During the feasibility phase it will be important to better understand the quantities of gas that these facilities could require, as well as the potential operating expense savings a conversion to natural gas would allow.

Finally, University Healthcare is in the planning stages of a replacement hospital for the Jefferson Medical Center in Ranson, WV. Our understanding is that this new facility is critical to University Healthcare's continued ability to meet the healthcare and public safety needs of Jefferson County. Natural gas service to this new facility would be a critical step in addressing the Joint Commission's accreditation requirement that the facility be served by two separate fuel sources. In addition, the reduced emissions from natural gas services would aide the hospital in addressing its Air Permit requirements. Satisfying both of these regulatory requirements is critical to the new facility receiving its

Certificate of Need, which it will need to begin construction. Once operational, the new facility and the surrounding medical campus would represent a significant source of natural gas demand in the area.

Several of the entities did mentioned that they were still feeling the effects of the recent economic downturn and noted that their budgets were tight. During the feasibility phase, it will be critical to develop a financial and development strategy that is sensitive to the fiscal realities facing the public sector in Jefferson County.

While the current economic challenges facing the local government entities are a concern, they should not be insurmountable. The success of this project is not totally dependent on the ability of the local government entities to fund 100% of the cost. Any successful project strategy will require varying capital contributions from a wide range of stakeholders.

No additional obstacles to the projects completion were uncovered from the public sector meetings.

Private Sector Meetings:

Also in November, Moreland conducted individual meetings with a number of local businesses to confidentially discuss their current energy usage and the relevance of this project to their operations. All of the businesses we spoke with viewed the project very favorably and commended the city and county leaders for taking the initiative to move it forward.

The majority of the businesses that we interviewed are currently using propane as their heating source. With current natural gas prices, these businesses could reduce their heating fuel costs by 30-40% by switching to natural gas and each business was acutely aware of the potential cost savings. In general, these businesses felt that if they could demonstrate a 3-5 year payback period, it would justify an investment in retrofitting their equipment and/or contributing to the project itself. With propane as a starting point, these payback periods should be easily attainable.

It is worth noting that more than one business pointed out that they were facing some sort of outside regulatory pressure that would make a conversion to natural gas very appealing, if not mandatory. In some cases, that pressure was creating competition in their sector which was negatively impacting their business operations. In other cases, the regulatory pressure was in the form of emissions controls and environmental mandates. In both cases, the benefits of switching to natural gas would help mitigate these outside requirements, either through direct cost savings or reduced greenhouse gas emissions.

In addition to the commercial sector companies that we interviewed, there are also several residential projects that have the potential to become major natural gas users. In fact, one public official estimated that there are over 12,000 residential units in

various stages of permitting in the County. While it is unlikely that all will come to fruition, or that all that do would use natural gas, these new units certainly represent a substantial pool of potential new natural gas customers. Several existing housing developments in the County have been built using propane tank farms to supply development wide heating fuel. These projects could potentially convert from propane to natural gas (when available) and still make use of the existing "last mile" infrastructure.

The private sector appears to be very positive towards the project and recognizes the economic and environmental benefits that can be realized by converting to natural gas. With an appropriate economic business case and suitable payback period, it is reasonable to anticipate some private sector capital contributions to the project.

No additional obstacles to the project's completion were uncovered from the private sector meetings.

Mountaineer Gas:

In the course of our analysis, Moreland contacted Mountaineer Gas and discussed with them the potential for bringing natural gas further into Jefferson County. The feedback from Mr. Larry Meador with Mountaineer was very positive on the concept and he appeared very willing to work with the various stakeholders to move the project forward. Mountaineer has an established internal process to determine the economic feasibility of extending their infrastructure. It is the results of this analysis that will determine whether Mountaineer will make the necessary capital investment.

As would be expected, demonstrated customer demand is a critical component of their internal economic analysis. We discussed the specific natural gas requirements for a prospect considering Jefferson County for a new facility and Mr. Meador felt that their usage would go a long way to proving the required demand. When coupled with the existing companies in the County, there should be a substantial demand base to justify and investment by Mountaineer.

In that same conversation, we did specifically ask Mr. Meador if there were any potential roadblocks or challenges that he was aware of that would make this project unfeasible. His response was that as long as there was adequate demand, he did not foresee any unsurmountable challenges.

Conclusion:

Moreland Advisors, Inc. has conducted its preliminary, pre-feasibility analysis and has not uncovered any major issues that would prevent this project from moving forward. As the project progresses, there will undoubtedly be unforeseen challenges that will emerge and will need to be dealt with. However, this is customary for nearly all projects of this size and scope, and is not unique to Jefferson County's position.

Our recommendation is to move to conduct a full feasibility study that will serve to more fully quantify the potential customer demand in the area, examine the technical issues relative to extending the existing gas lines, and establish a pro-forma estimate of the project costs. The results of this study should be used as inputs for Mountaineer's economic feasibility analysis.

Eastern Panhandle Natural Gas Expansion Feasibility Study - Procurement Guidelines

Eastern Panhandle Natural Gas Expansion Feasibility study Procurement Guidelines and Scope of Work

The Region 9 Planning and Development Council of the eastern panhandle is accepting Statement of Qualifications from professional engineering consulting firms detailing the firm's qualifications, technical expertise, management and staffing capabilities, references, and related prior experience for natural gas extension projects. Successful candidates will provide valid feasibility for the extension of natural gas line service through the eastern panhandle which professional services may include, but are not limited to all information and review to determine, capacity/supply availability, demand, technical, financial, mapping and possible time table regarding the expansion of natural gas delivery systems.

Procurement of said services will be in accordance with Chapter 5G-1-3 of the WV Code. Interested firms must submit (8) copies of all requested information to the Region 9 Planning and Development Council c/o Bill Clark Executive Director, 400 West Stephen Street, Suite 301 Martinsburg, WV 25401. Request for Qualifications must be received by May 2nd, 2014; no later than 4PM. RFQ's sent via facsimile shall not be accepted. RFQ's shall be submitted in an envelope sealed with tape and prominently marked on the lower left-hand corner of the envelope. Overnight mail must also be properly labeled on the outside of the express envelope or package. Any RFQ received after closing date and time will not be accepted.

Attention is directed to the fact that the proposed project(s) may be undertaken with a variety of State and local funds and that all work will be performed in accordance with the regulations issued by such agencies and the State of West Virginia pertaining thereto.

The selected firm will be required to comply with Title IV of the Civil Rights Act of 1964, shall provide a Conflict of Interest Statement and provide references and proof of all certificates and licenses to provide services within WV.

Region 9 Planning & Development Council will afford full opportunity to women-owned and minority business enterprises to submit a show of interest in response to this request and will not discriminate against any interested firm or individual on the grounds of race, creed, color, sex, age, handicap, or national origin in the award of this contract.

It is understood that the Region 9 Council reserves the right to negotiate all elements that comprise the submission and to accept or reject part or all of any submission. The Council reserves the right to reject any or all proposals and waive any or all irregularities or to proceed otherwise when in the best interest of the Council. Proposals shall be valid for a period of sixty days from the submission deadline.

The Region 9 Council or its designated search committee shall evaluate the statements of qualifications and performance data and other material submitted by interested firms and select a minimum of three firms which, in their opinion, are best qualified to perform the desired services. Interviews with each firm selected shall be conducted, which may include discussions regarding anticipated concepts and proposed methods of approach. The search committee shall rank, in order of preference, these three professional firms deemed to be the most highly qualified to provide the services required, and shall commence potential adjustments to the written scope of services and price negotiations with the highest qualified professional firm for engineering services.

Should the Search Committee be unable to negotiate a satisfactory contract with the professional firm considered to be the most qualified, at a fee determined to be fair and reasonable, price negotiations with the firm of second choice shall commence. Failing accord with the second most qualified professional firm, the committee shall undertake price negotiations with the third most qualified professional firm. Should the Search Committee be unable to negotiate a satisfactory contract with any of selected professional firms, it shall select additional professional firms in order of their competence and qualifications and it shall continue negotiations in accordance with these procedures until an agreement is reached.

Evaluations will be based on the following criteria: relevant experience, past performance, record of completing projects on time, favorability of references, the adequacy of the proposal in terms of addressing the needs set forth in this RFQ, and the Special Issues listed below.

Each candidate shall provide all information herein requested. A minimum of three references where similar engineering services in terms of design and scope have been performed during the past five years shall be included as part of this RFQ. The engineer will be required to enter into a written professional services agreement with the Region 9 Council, which will incorporate the information contained in this RFQ. The engineer shall agree to a lump sum fee or to a unit cost with a stated maximum fee which the project will not exceed. The fee shall include all costs associated with the services outlined herein. Costs sometimes billed separately as reimbursable costs shall be declared and included in the lump sum amount of this proposal. Invoices shall be provided setting forth the percentage of work completed to date, establishing the amount due based on the percentage completed, less any previous amounts.

Professional Liability Insurance is required; please indicate the level of coverage provided.

Please direct your questions regarding the preparation of the RFQ to Bill Clark. The Region 9 Natural Gas Committee will review Requests for Information. Deadline for submitting: April 23, 2014. Submitted proposals will be weighted heavily towards the Firm's technical expertise and the ability to best deliver the product that meets the general requirements of the scope of work.

Please attach proposal, a minimum of three project references similar in design and scope, and limits of coverage for professional liability insurance.

Eastern Panhandle Natural Gas Expansion Feasibility Study - Scope of Work

**Eastern Panhandle of WV
Natural Gas Service Extension - Feasibility Report
Scope of Work (Contract Documents - Article 7.A.2)**

Process:

Procurement of services was managed in accordance with Chapter 5G-1-3 of the WV Code. Interested firms submitted requested information to the Region 9 Planning and Development Council c/o Bill Clark Executive Director, 400 West Stephen Street, Suite 301 Martinsburg, WV 25401. These RFQs were scored by an evaluation team selected by the Gas Committee. The top scoring firms were interviewed and rescored. It is understood that the Region 9 Council reserves the right to negotiate all elements that comprise the submission and to accept or reject part or all of any submission. The Council reserves the right to reject any or all proposals and waive any or all irregularities or to proceed otherwise when in the best interest of the Council. Proposals shall be valid for a period of sixty days from the submission deadline.

The engineer shall agree to a lump sum fee or to a unit cost with a stated maximum fee which the project will not exceed. The fee shall include all costs associated with the services outlined herein. Costs sometimes billed separately as reimbursable costs shall be declared and included in the lump sum amount of this proposal. Invoices shall be provided setting forth the percentage of work completed to date, establishing the amount due based on the percentage completed, less any previous amounts. Professional Liability Insurance is required; please indicate the level of coverage provided.

Overview:

1. Provide a very brief overview of the project history, its stakeholders and the actions taken to date.
2. Provide a market overview (demographic and employment) of both Jefferson County and Berkeley County, WV.

Infrastructure - Determine Feasibility of the following:

1. Extend a natural gas transmission line to WV; preference should be given to the route that will provide the greatest future capacity or .
2. Expand capacity of the existing distribution main lines in Berkeley County. Determine what if any capacity exists in the existing transmission mains in Berkeley County.
3. Extend a distribution main line through Jefferson County and other areas of the eastern panhandle.
4. Mainline availability through Maryland and Virginia should be investigated. Ease of available access should be investigated throughout the region.

Preliminary Engineering:

1. Designate several routes for the gas line extensions. Each route will include a capacity analysis. Consider impacts within economy impacts within West Virginia.

- a. Work with local stakeholders to determine areas of projected high demand.
2. For each route define what easements would be needed to undertake construction.
3. Develop a preliminary cost for each route.
4. Develop a schedule for the design, permitting, governmental review and construction of the gas lines.

Supply/Capacity:

1. Discuss the current capacity issue related to Columbia's transmission lines and Mountaineer's existing distribution infrastructure.
2. Provide an overview of the surrounding natural gas transmission lines (MD, VA and PA) and their current capacities.

Demand:

1. Provide a discussion and analysis of the historical energy use data for the major potential conversion users in both Jefferson and Berkeley counties (Not all companies may provide this information. 3 years of historical data preferred).
2. Plot potential users of a map and show potential ROW paths to service them.
3. Provide a discussion and analysis of new development areas within Jefferson County, Berkeley County and those areas planned for future growth.

Project Costs and Financing:

1. Provide an overview of the potential scope of work for the construction of the project.
2. Provide a project pro-forma demonstrating the potential costs to extend a transmission line to service the Jefferson Co./Berkeley Co. area. These will be preliminary estimates and will be formulated in conjunction with the help of Mountaineer's internal engineering staff.
3. Provide a discussion and analysis of the potential financing mechanisms that could be available to the project to include Federal, State and Local funding as well as private funding through a public-private partnership (PPP).

Economic Impact:

1. Provide a discussion and analysis of the economic impact that the investment in the extension of the natural gas service into Jefferson and Berkeley Counties could provide (direct and indirect benefits).

Key Considerations:

1. Provide a discussion some of the key considerations that the project will need to contemplate and address as it moves forward. For each, provide a general discussion of its impact to the project and potential ways to enhance/mitigate those impacts. Some of the items to be addressed include, but are not limited to:
 - 1.1. Pipeline Safety Issues
 - 1.2. Environmental Impacts
 - 1.3. Historical Issues

- 1.4. Installation Costs
- 1.5. Right of Way Acquisition
- 1.6. Public Service Commission

Timeline:

1. Provide a preliminary timeline of the project development including a discussion of critical path items.

Conclusion and Recommendation:

1. Provide a recommendation on the best path forward for the project and a discussion on the next steps to be taken.
2. Include estimates, maps and methodology for recommendations

Engineering Service Agreement between Region Nine and The Thrasher Group

THRASHER

**EASTERN PANHANDLE REGIONAL PLANNING
AND DEVELOPMENT COUNCIL (REGION IX)
BERKELEY COUNTY, WEST VIRGINIA**

**FEASIBILITY STUDY OF CAPACITY OF EXISTING
NATURAL GAS SYSTEM AND EXTENSION OF
NATURAL GAS LINE SERVICE THROUGH
PORTIONS OF EASTERN PANHANDLE**

ENGINEERING SERVICE AGREEMENT

AUGUST 2014

THRASHER PROJECT #101-015-0259

**AGREEMENT
BETWEEN OWNER AND CONTRACTOR
FOR FEASIBILITY STUDY**

THIS AGREEMENT is by and between Eastern Panhandle Regional Planning and Development Council ("Region 9") ("Owner") and
The Thrasher Group, Inc. ("Thrasher") ("Contractor").

Owner and Contractor hereby agree as follows:

ARTICLE 1 – WORK

1.01 Contractor shall complete all Work as specified or indicated in the Contract Documents. The Work is generally described as follows:

Thrasher will prepare a Feasibility Study for increased capacity of existing natural gas system and extension of natural gas line service through other portions of the eastern panhandle in accordance with Region Nine's project scope.

ARTICLE 2 – PROJECT

The Project is known as "Eastern Panhandle Natural Gas Expansion Feasibility Study."

2.01 The Project consists of a feasibility study to determine a business model to extend natural gas service in the eastern panhandle of West Virginia. Preliminary conceptual design, modeling, mapping and cost estimates, among other engineering methods and processes, will be utilized by the Contractor in completion of the work. Completion of the study shall be in accordance with the Contract Documents. The Project for which the Work under the Contract Documents may be the whole or only a part is generally described as follows:

Thrasher will prepare a Feasibility Study for increased capacity of existing natural gas system and extension of natural gas line service through other portions of the eastern panhandle in accordance with Region Nine's project scope.

ARTICLE 3 – CONTRACT TIMES

3.01 *Time of the Essence*

A. All time limits for Milestones, if any, Substantial Completion, and completion and readiness for final payment as stated in the Contract Documents are of the essence of the Contract.

3.02 *Days to Achieve Substantial Completion and Final Payment*

A. The Work will be substantially completed within ninety (90) days after the date when the Contract Times commence to run as provided in Paragraph 2.01 Project, and completed and

ready for final payment in accordance with Paragraph 4.01 Contract Price within ninety (90) days after the date when the Contract Times commence to run.

3.02 *Liquidated Damages*- There will be no liquidated damages in this contract

ARTICLE 4 -CONTRACT PRICE

THE LUMP SUM FEE FOR ALL SERVICES WILL BE BILLED AT PROJECT COMPLETION. THRASHER OFFERS TO PERFORM THE FEASIBILITY STUDY ITSELF FOR \$40,000. IF THE STUDY LEADS TO A TANGIBLE EASTERN PANHANDLE GAS SERVICE EXPANSION PROJECT AS A RESULT OF THE STUDY, THE REMAINING \$40,000 WOULD THEN BE PAYABLE IN FULL TO THRASHER

4.01 Owner shall pay Contractor for completion of the Work in accordance with the Contract Document an amount in current funds equal to the sum of the amounts determined pursuant to Paragraphs 4.01.A below:

- A. For all Work other than Unit Price Work, a payment schedules shown below will apply:
1. Payment of \$40,000 will be made by Owner to Contractor upon project completion.
 2. If a tangible eastern panhandle gas expansion project commences as a result of the study within a period of twenty-four (24) months after acceptance of the study by Owner, final payment of the remaining \$40,000 will be made by Owner to Contractor.
 3. All specific cash allowances are included in the above price in accordance with the General Conditions.

ARTICLE 5 -PAYMENT PROCEDURES

5.02 *Submittal and Processing of Payments*

- A. Contractor shall submit invoice for Payment to Owner upon final completion of the study.

5.03 *Final Payment*

- A. Final payment will be made by Owner to Contractor upon final completion and acceptance of the Work in the opinion of Region 9 and the Natural Gas Committee in accordance with the scope of work and report submitted for approval.

ARTICLE 6 – CONTRACTOR’S REPRESENTATIONS

6.01 In order to induce Owner to enter into this Agreement, Contractor makes the following representations:

- A. Contractor has examined and carefully studied the Contract Documents and the other related data identified in the Bidding Documents.

ARTICLE 7 – CONTRACT DOCUMENTS

7.01 *Contents*

- A. The Contract Documents consist of the following:
 - 1. This Agreement
 - 2. The Scope of work
 - 3. The following which may be delivered or issued on or after the Effective Date of the Agreement and are not attached hereto:
 - a. Notice to Proceed
- B. The documents listed in Paragraph 7.01.A are attached to this Agreement (except as expressly noted otherwise above).
- C. There are no Contract Documents other than those listed above in this Article 7.
- D. The Contract Documents may be amended, modified, or supplemented with approval of both parties.

ARTICLE 8 – MISCELLANEOUS

8.01 *Terms*

- A. Terms used in this Agreement will have the meanings stated in the General Conditions and the Supplementary Conditions.

8.02 *Assignment of Contract*

- A. No assignment by a party hereto of any rights under or interests in the Contract will be binding on another party hereto without the written consent of the party sought to be bound; and, specifically but without limitation, moneys that may become due and moneys that are due may not be assigned without such consent (except to the extent that the effect of this restriction may be limited by law), and unless specifically stated to the contrary in any written consent to an assignment, no assignment will release or discharge the assignor from any duty or responsibility under the Contract Documents.

8.03 *Successors and Assigns*

- A. Owner and Contractor each binds itself, its partners, successors, assigns, and legal representatives to the other party hereto, its partners, successors, assigns, and legal representatives in respect to all covenants, agreements, and obligations contained in the Contract Documents.

8.04 Severability

- A. Any provision or part of the Contract Documents held to be void or unenforceable under any Law or Regulation shall be deemed stricken, and all remaining provisions shall continue to be valid and binding upon Owner and Contractor, who agree that the Contract Documents shall be reformed to replace such stricken provision or part thereof with a valid and enforceable provision that comes as close as possible to expressing the intention of the stricken provision.

8.05 Contractor's Certifications

- A. Contractor certifies that it has not engaged in corrupt, fraudulent, collusive, or coercive practices in competing for or in executing the Contract. For the purposes of this Paragraph 8.05:
1. "corrupt practice" means the offering, giving, receiving, or soliciting of any thing of value likely to influence the action of a public official in the bidding process or in the Contract execution;
 2. "fraudulent practice" means an intentional misrepresentation of facts made (a) to influence the bidding process or the execution of the Contract to the detriment of Owner, (b) to establish Bid or Contract prices at artificial non-competitive levels, or (c) to deprive Owner of the benefits of free and open competition;
 3. "collusive practice" means a scheme or arrangement between two or more Bidders, with or without the knowledge of Owner, a purpose of which is to establish Bid prices at artificial, non-competitive levels; and
 4. "coercive practice" means harming or threatening to harm, directly or indirectly, persons or their property to influence their participation in the bidding process or affect the execution of the Contract.

IN WITNESS WHEREOF, Owner and Contractor have signed this Agreement. Counterparts have been delivered to Owner and Contractor. All portions of the Contract Documents have been signed or have been identified by Owner and Contractor or on their behalf.

This Agreement will be effective on August 11, 2014 (which is the Effective Date of the Agreement).

OWNER:

Eastern Panhandle Regional Planning and
Development Council – Region Nine

By: _____

Title: Executive Director

Attest: _____

Title: _____

Address for giving notices:

West Stephen Street, Suite 301
Martinsburg, WV 25401

(If Owner is a corporation, attach evidence of authority to sign. If Owner is a public body, attach evidence of authority to sign and resolution or other documents authorizing execution of this Agreement.)

CONTRACTOR

The Thrasher Group, Inc.

By:  _____

Title: Principal

Attest:  _____

Title: Dir., Bys. Dev.

Address for giving notices:

600 White Oaks Boulevard
Bridgeport, WV 26330

License No.: _____

(Where applicable)

NOTE TO USER: Use in those states or other jurisdictions where applicable or required.

Agent for service of process:

Economic Impact of a New Natural Gas Pipeline in Berkeley and Jefferson Counties



West Virginia University
COLLEGE OF BUSINESS AND ECONOMICS

Bureau of Business and Economic Research

Economic Impact of a New Natural Gas Pipeline in Berkeley and Jefferson Counties

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December 2014

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The authors thank the following people for valuable input into this report: Todd Hooker, senior manager of financial programs and national accounts at the West Virginia Development Office; Steve Christian, executive director of the Berkeley County Economic Development Authority; and John Reisenweber, executive director of the Jefferson County Economic Development Authority.



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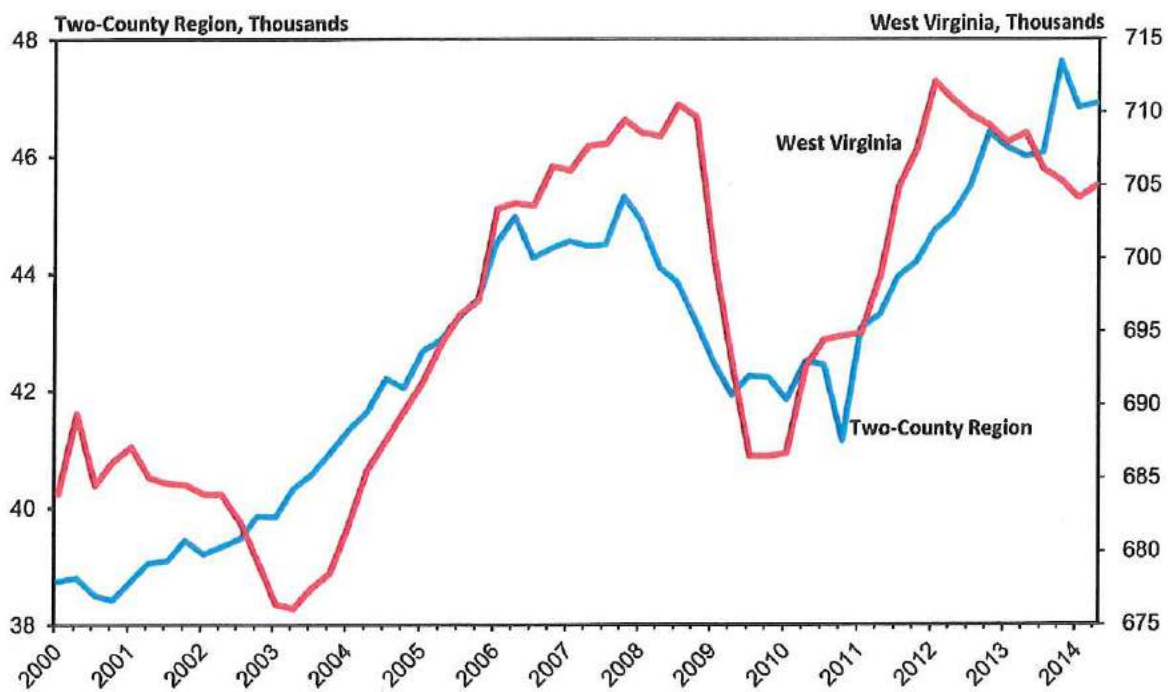
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1 Market Overview

Berkeley and Jefferson counties are two of the fastest growing county economies in West Virginia, notching a healthy rate of job growth during 2013. After registering a cumulative loss of approximately 4,200 jobs (9 percent decline) over the course of the Great Recession and into the fourth quarter of 2010, the two counties have since bounced back at a strong pace (see Figure 1). Local payrolls have increased by roughly 5,700, more than recovering the jobs lost during the economic downturn, and now exceed the peak level observed prior to the recession by more than 3 percent.¹

Figure 1: Total Employment



Source: US Bureau of Labor Statistics; Workforce WV

Both Berkeley and Jefferson counties experienced varying degrees of job losses during the economic downturn, but the overall trajectory of growth from the beginning of the recovery through the first quarter of 2014 has not been identical. Berkeley County contains approximately two-thirds of the jobs found in the region and has also been the biggest contributor of job losses and gains over the course of the recession and economic recovery. Overall, Berkeley registered a net decline in employment of nearly 12 percent from late 2007 to 2010 ending at a little more than 28 thousand jobs. But the county has seen payrolls rebound 18 percent on a cumulative basis through early-2014. Jefferson County recorded a more moderate downturn and recovery over the past several years. Nonetheless, total payrolls at businesses located within the county are roughly on par with their pre-recession peak.

¹ Sources for historical information are noted in each figure.



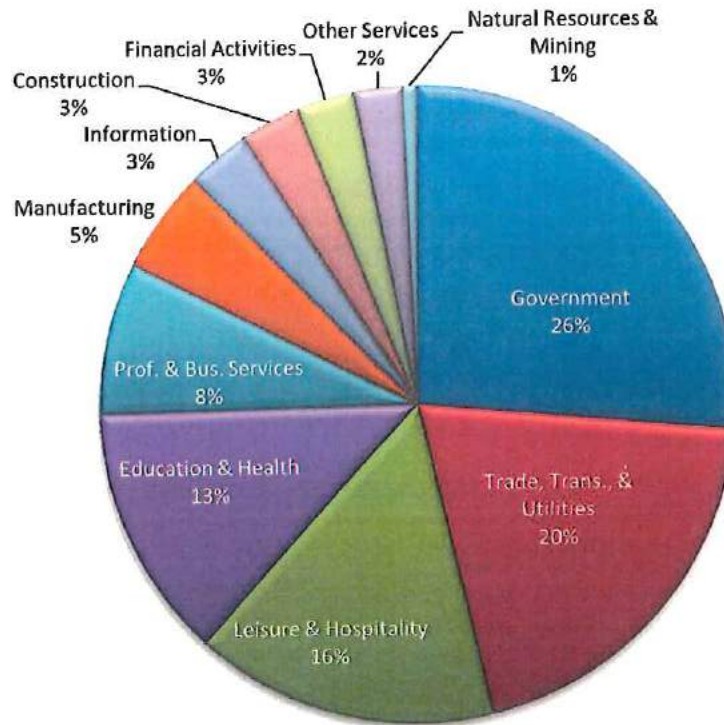
In addition to the jobs located within the region's borders, more than 40 percent of the region's workforce holds a job out-of-state, primarily in Northern Virginia, suburban Maryland or Washington, DC. Although the greater-Washington, DC, metro area's economy continues to expand thanks to a highly diversified industrial base, the pace of job gains in the region have taken a hit over the past two years due to the effects of federal budget sequestration.

Although Berkeley and Jefferson counties have enjoyed a relatively robust economic recovery, a few sectors have accounted for the lion's share of job growth in the region over the past few years. Figure 2 shows the region's employment by sector. The trade, transportation, and utilities sector has recorded the strongest gains in employment, largely as a result of the new Macy's fulfillment center in Martinsburg, which has provided the largest boost to payrolls in the region. The facility now employs approximately 1,100 core staff for year-round operations and is expected to hire more than 2,000 short-term workers during holiday shopping seasons. However, local retail sector employment has also trended higher for the past two years, as consumer spending activity has benefited from a healthier labor market and continued population growth.

Professional and business services firms have recovered a significant portion of the jobs lost during the recession. The two-county region's proximity to Northern Virginia and suburban Maryland have enabled it to capture a range of business support activities for regional employers over the years, including IT, legal, accounting and temp services. Hiring activity has slowed over the past year as sequestration and weaker overall growth in federal spending have hurt companies in the area that perform contracting and subcontracting functions for federal defense and civilian agencies. After a relatively brief drop-off in hiring activity during late 2012 and early 2013, the education and healthcare sector have seen employment levels resume their long-term upward trend. Overall, this sector has added more than 2,000 jobs in the past decade.



Figure 2: Employment Distribution by Sector



Source: US Bureau of Labor Statistics

The region's leisure and hospitality sector has lost some momentum. Several new midscale hotels and an improved regional and national backdrop for consumer and business travel and tourism spending have buoyed activity in the area. However, the expansion of gaming into Pennsylvania and more recently Maryland have clearly begun to affect the Hollywood Casino at Charles Town Races. Total gross revenues (revenues minus winnings) from video lottery terminals and table games has fallen to \$421 million in WV state fiscal year 2014 from \$582 million in fiscal year 2012, a drop of more than 27 percent.

In addition to the large number of residents who commute into Maryland, Virginia and Washington, DC, to work at federal agencies, the public sector is also a significant source of jobs within the region. In fact, government at all levels accounts for more than 1 in 4 jobs in region. Aside from state and local government offices, the US federal government has a sizable presence, with offices and facilities for Treasury, Veterans Affairs, Customs and the National Parks Service that employ more than 4,000 workers.

Public sector employment has generally remained flat for the past four years. State government payrolls in the region have increased moderately since 2010, but the level of local government employment has been stagnant for several years as a result of weak property tax revenue growth, and lagging casino and racing receipts. Federal government employment in the region has remained steady for several years, reflecting broader national trends related to the US federal budget situation.



Improvements have slowed down appreciably for the construction sector in Berkeley and Jefferson counties. The pace of new single-family housing starts in the two-county region plunged nearly 90 between early 2006 and late 2011, bottoming out at approximately 360 housing starts. Since then the level of new home construction has increased almost 80 percent to 640 single-family housing starts as of mid-year 2014,² but the rate of growth has been significantly slower in the past year due to still-tight lending conditions as well as very harsh winter conditions.

Nonresidential activity has been relatively limited over the past few years, with the Macy's fulfillment center and Spring Hill High School representing the most significant projects. Approximately \$87 million in nonresidential construction projects have been started over the past year across the two-county region, an increase of 45 percent compared to the previous 12-month period but well below levels observed as recently as 2011. Similar to other parts of West Virginia, as well as the nation as a whole, spending on infrastructure and other nonbuilding construction has remained weak in the two-county region. Over the course of the past year, \$72 million in nonbuilding projects have been started in the region, with the majority of estimated spending associated with mandated capital improvements to Berkeley County's wastewater treatment system.³

In comparison to other regions in West Virginia, Berkeley and Jefferson counties contain limited amounts of natural resources. Most of the region's jobs in natural resources and mining are associated with agricultural production. However, since the employment data presented here cover businesses that pay unemployment insurance taxes, a large portion of the region's farm sector is excluded. According to the 2012 Census of Agriculture, the region contains nearly 1,200 total farm operations that generated approximately \$66 million in cash receipts from sales, a 60 percent cumulative increase since 2007. The primary types of farm operations found in the area include cattle ranching, horses and some apple orchards. While containing fewer farm operations, Jefferson County accounted for more than half of the region's agricultural sales receipts. Overall, farms there received \$36 million in sales during 2012.

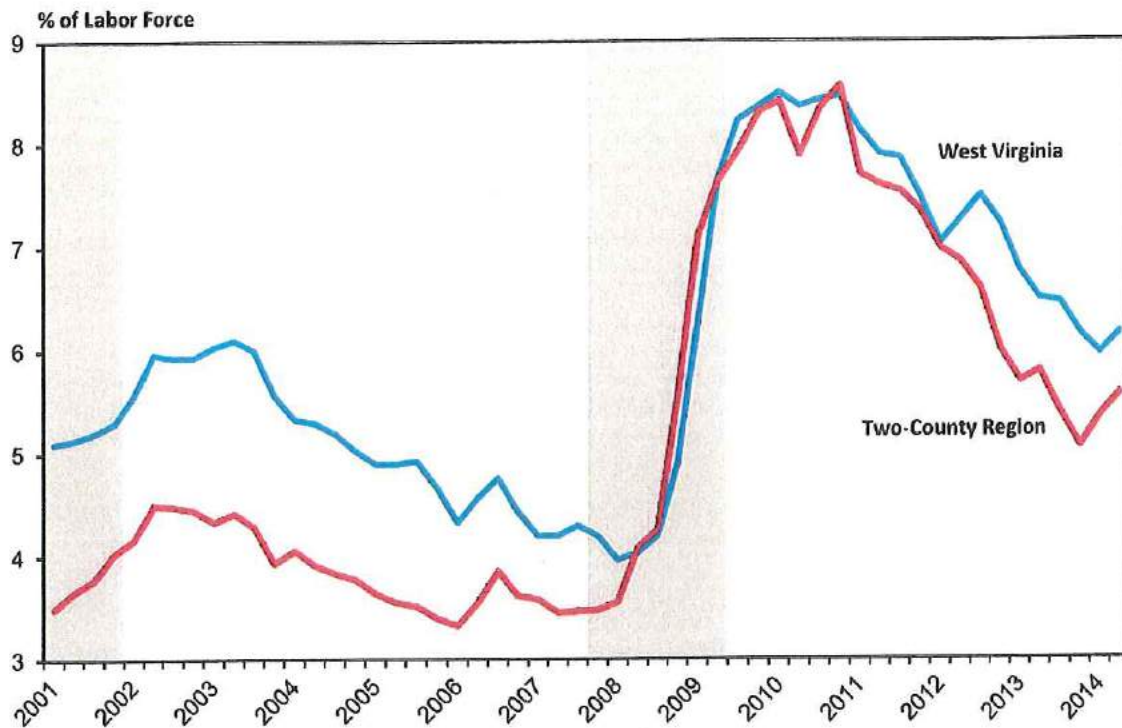
The unemployment rate in the two counties reached a peak of 8.6 percent during the fourth quarter of 2010 (Figure 3). By the end of 2013, the region's jobless rate had fallen to 5.1 percent, marking a 5-year low. Over the past two quarters, however, the unemployment rate has increased to 5.6 percent. Despite the increase, the region's unemployment rate is lower compared with the same period a year ago and is more than one-half a percentage point lower than state and national averages. Jefferson County has the lowest unemployment rate in the region at 4.5 percent while Berkeley County's jobless rate (6.1 percent) is generally in line with state and national averages.

² Data from McGraw Hill Construction.

³ Construction data come from McGraw-Hill Construction.



Figure 3: Berkeley and Jefferson Counties' Unemployment Rate



Source: US Bureau of Labor Statistics
*Shaded regions indicate recessions; data are seasonally adjusted

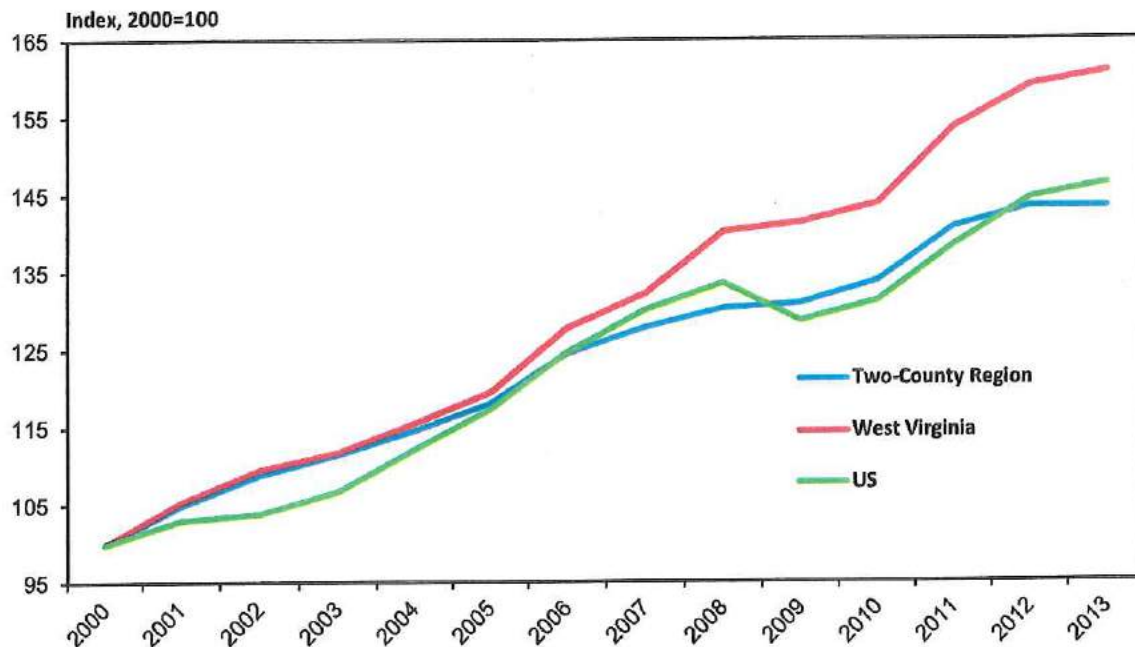
In contrast to broader statewide trends, Berkeley and Jefferson counties' initial declines in the unemployment rate were accompanied by solid labor force growth as 2,000 people joined the labor force between the fourth quarters of 2010 and 2012. Since that point, however, preliminary data indicate the region has experienced some degree of labor force attrition likely as a result of the recent federal government-driven slowdown in growth occurring in Northern Virginia and Maryland suburbs of the DC metro area. On a positive note, the two-county region's labor force has added nearly 1,000 people since the beginning of 2014. In addition, both counties in the region have labor force participation rates well above the statewide average and in fact are several percentage points higher in comparison to the rest of the nation.

1.1 Personal Income

Per capita personal income in Berkeley and Jefferson counties was estimated at nearly \$35,200 during calendar year 2013, without adjusting for inflation. This was down slightly from the previous year, compared to gains of 1.1 and 1.3 percent for the state and nation, respectively (Figure 4). Although wages paid by local businesses increased in 2013, wages earned by residents who commuted outside of the state actually declined—a reflection of the Greater Washington, DC, economy's sluggish performance in 2013. Overall, since 2008, the region has seen nominal per capita income levels increase at a rate of 1.9 percent per year, edging past the 1.8 percent rate of growth observed nationally yet lagging the 2.8 percent average annual gain for West Virginia registered over this time period.



Figure 4: Per Capita Personal Income Growth



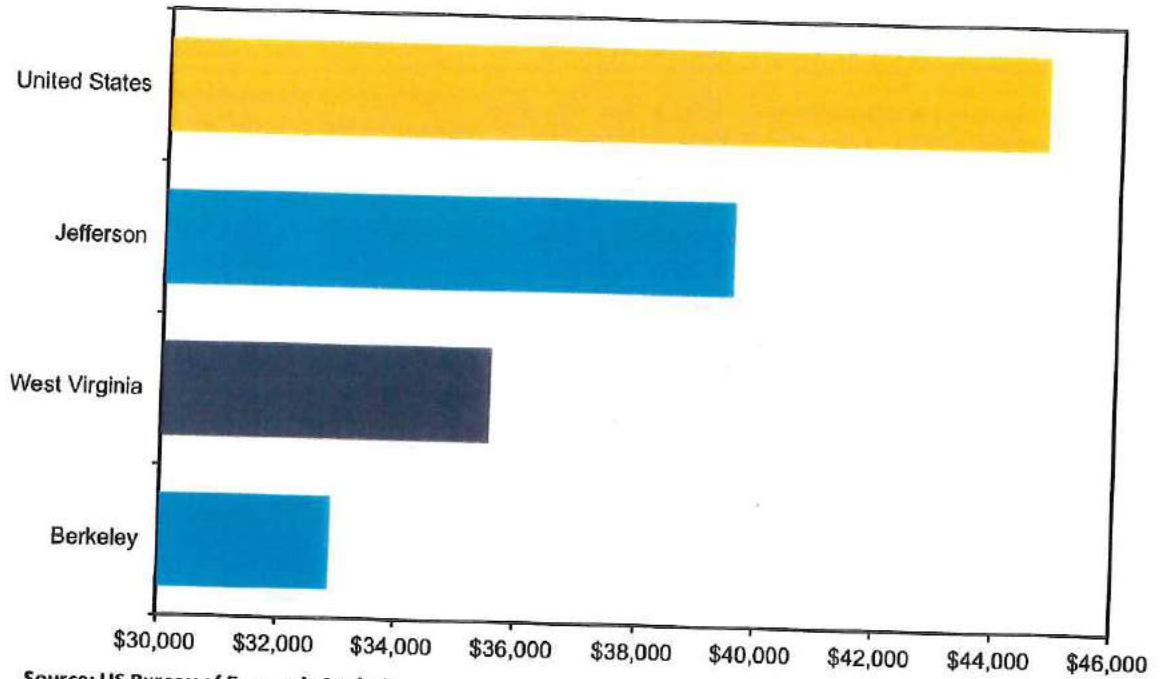
Source: US Bureau of Economic Analysis

*Note: The 2013 figure for Berkeley and Jefferson counties is an estimate

Of the two counties, residents in Jefferson County have the highest per capita income at roughly \$39,500, putting it almost \$4,000 above the statewide average and ranking it among the top five of West Virginia's 55 counties (see Figure 5). Per capita income levels in Berkeley County were lower at \$32,900. Incomes tend to be somewhat higher in Jefferson County since a larger share of workers commute into the Washington, DC, metro area where wages and salaries tend to be higher. Figure 6 shows average annual salaries by sector.



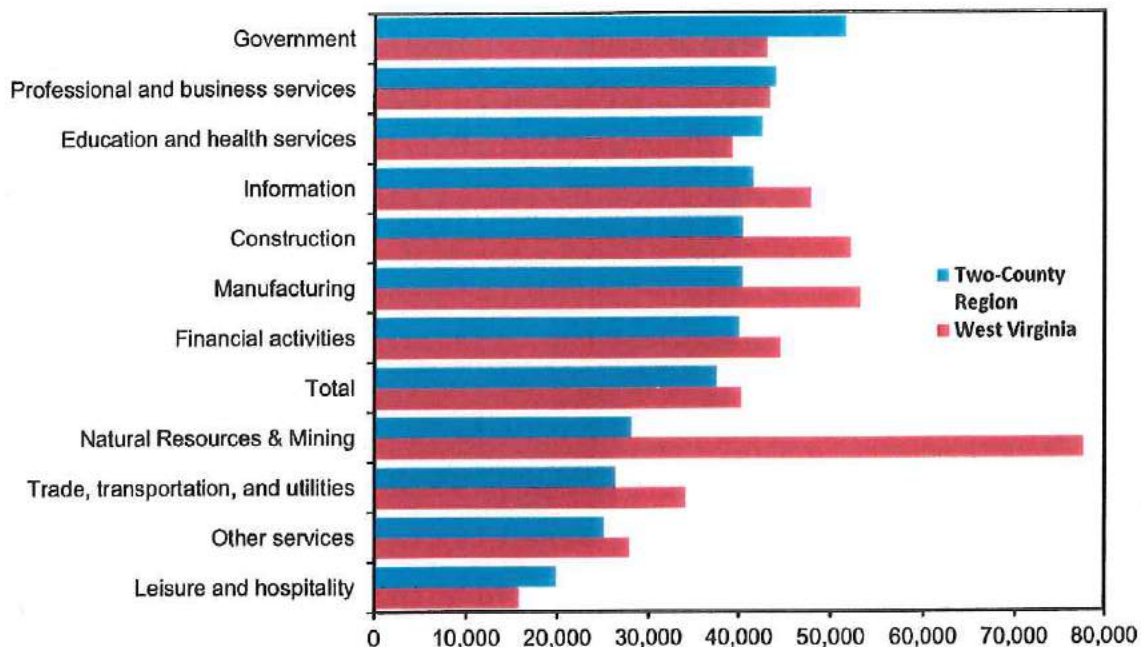
Figure 5: Per Capita Personal Income by County



Source: US Bureau of Economic Analysis



Figure 6: Average Annual Salary by Major Sector (2013)



Source: US Bureau of Labor Statistics

1.2 Population

Berkeley and Jefferson have consistently ranked as two of West Virginia’s fastest-growing counties over the past 20 years in terms of population (see Table 1). Between 1993 and 2013, the two counties combined to add roughly 61,300 residents to a total of more than 163 thousand residents, or a net percentage increase of 60 percent. The state’s remaining 53 counties combined to produce a net decline of more than 23,100 residents. Population growth in the two-county region has been measurably slower over the past several years as a result of the recession and housing market bust leading to smaller net in-migration flows. After falling below an annual increase of 1 percent in both 2011 and 2012, the pace of population growth picked up slightly to 1.2 percent during 2013.

In terms of its underlying demographic characteristics, the two-county population does not closely resemble broader statewide conditions. For example, with a relatively younger population, Berkeley and Jefferson counties have higher birth rates and lower death rates, which allows the region to gain residents via natural increase (births minus deaths). For the region as a whole, the median age is more than two years below the state figure. The local population also tends to possess higher levels of educational attainment. Nearly 22 percent of the region’s 25 years and older population held at least a bachelor’s degree during 2012. Jefferson County contained the highest share of college graduates in the region, as 28 percent of the county’s residents aged 25 years and older had received a bachelor’s or graduate degree.



Table 1: Summary Population Profiles

	Berkeley & Jefferson Counties	West Virginia	United States
Total Population (2013)	163,779	1,854,304	316,128,839
% Population Under 18 (2013)	23.9%	20.6%	23.3%
% Population 65 Years + (2013)	13.1%	17.3%	13.7%
Population with Less than High School Diploma (2012, % of pop. 25 yrs. +)	14.1%	15.5%	13.6%
Population with High School Diploma, No College (2012, % of pop. 25 yrs. +)	36.0%	40.6%	28.0%
Population with Some College (2012, % of pop. 25 yrs. +)	27.6%	25.3%	29.2%
Population with Bachelor's Degree or Higher (2012, % of pop. 25 yrs.+)	22.2%	18.7%	29.1%
Median Age (2013)	38.9	41.9	37.6
Mean Household Income (2012)	\$70,849	\$54,382	\$71,317
Average Household Size (2012)	2.60	2.44	2.64

Source: US Census Bureau

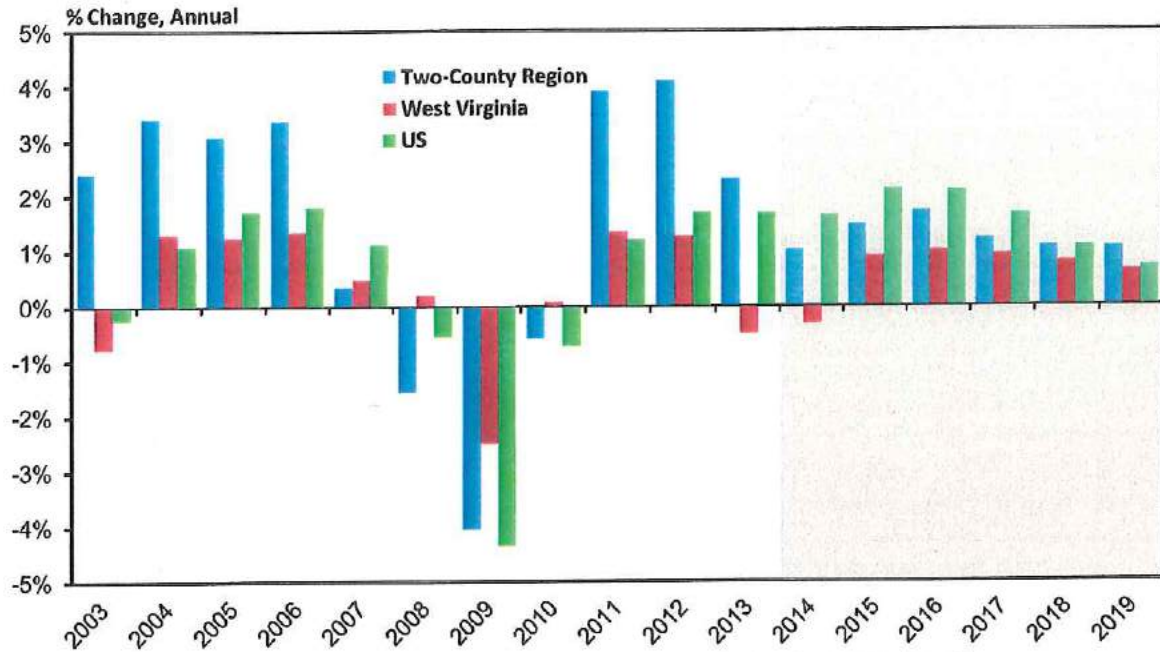
2 Five-Year Economic Development Potential

Economic growth in Berkeley and Jefferson counties will play a strong role in determining potential demand for natural gas in the future. This section outlines a five-year growth forecast for the two-county region. The forecast is based on the West Virginia University Bureau of Business & Economic Research Econometric Model.

Our forecast calls for the economic recovery in Berkeley and Jefferson counties to continue over the next five years (see Figure 7). Projected economic growth at the national level during the outlook period bodes well for the local economy and should allow the region to enjoy above-average growth through the end of 2019. We anticipate total employment will increase at a rate of 1.3 percent per year. This represents a slower rate of growth that was observed as the region emerged from recession, but this will put the two-county region's performance ahead of statewide job growth (0.9 percent) and moderately lower than the national average (1.5 percent).



Figure 7: Employment Growth Forecast



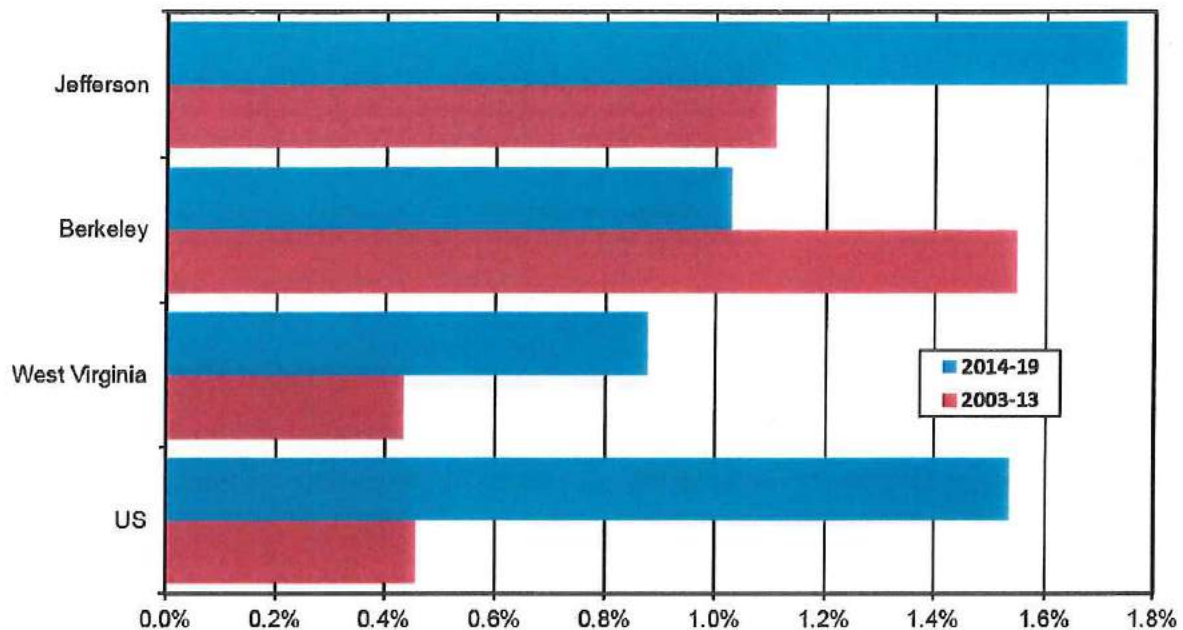
Source: Bureau of Labor Statistics; Workforce WV; WVU BBER Econometric Model; IHS Global Insight

*Note: WV, and Berkeley and Jefferson Counties use covered employment; Shaded region represents the forecast period

Among the two counties, the forecast calls for Jefferson County to enjoy the strongest rate of growth over the next five years with an expected gain of roughly 1.7 percent per year (Figure 8). In fact, Jefferson County is projected to rank as one of the state’s fastest-growing counties during the forecast horizon, reflecting a broad-based improvement in the county’s economy. Berkeley County’s economy is projected to have a slower rate of job growth at 1 percent per year, but will still outpace the statewide average thanks to strong contributions from construction, manufacturing and several private service-providing sectors. However, Berkeley County’s forecast contains considerable uncertainty due to the difficulty in estimating seasonal patterns in employment associated with the Macy fulfillment center.



Figure 8: Employment Growth Forecast by County



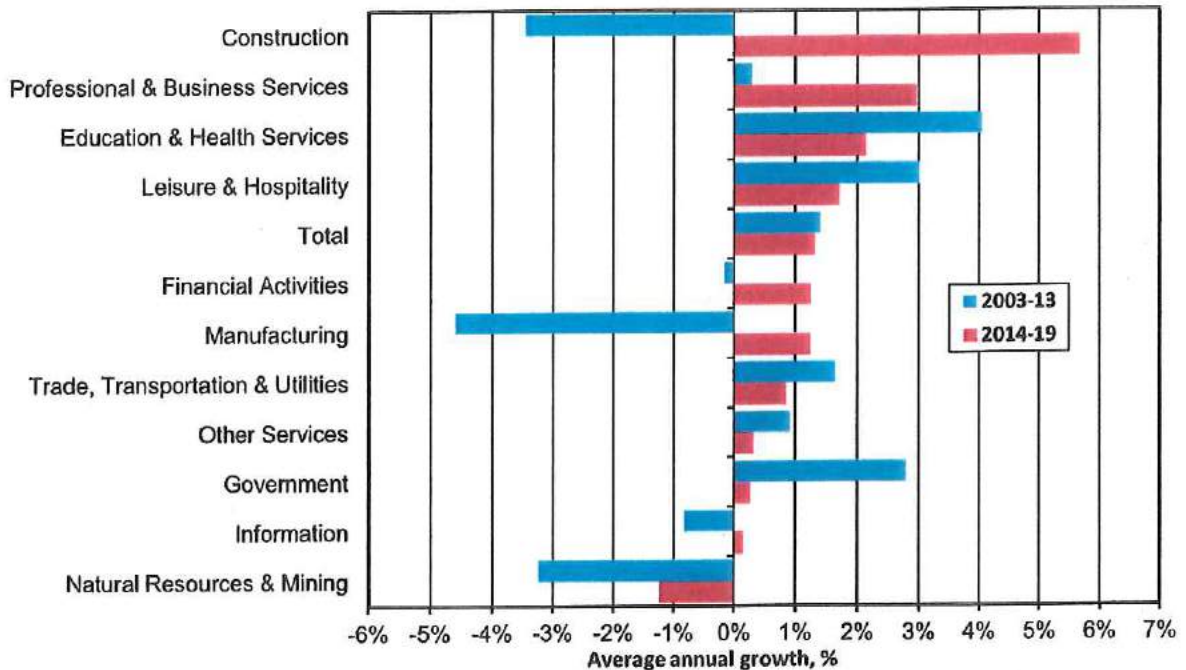
Among the region's major sectors, our forecast calls for construction to register the strongest pace of job growth, expanding at a rate of nearly 6 percent per year between 2014 and 2019 (Figure 9). We anticipate the region's residential construction sector to gain momentum after what was an incredibly slow first half of the year in 2014. The underlying demographic forces affecting housing demand remain positive, namely large net in-flows of migrants and an above-average share of households with a high propensity to buy new homes.

Furthermore, the distressed housing supply (foreclosures and short sales) in Berkeley and Jefferson counties and neighboring sub-markets in Maryland and Virginia, has declined significantly and has allowed for increased house price appreciation. Rising home prices will allow individuals who have been stuck in their current homes due to limited or even negative equity to sell their homes and generate move-up demand, which is generally met with new construction.

Nonresidential and nonbuilding construction activity should also provide a boost to the sector. Projects such as the planned dorm for the US Customs and Border Protection Advanced Training Center and the wastewater system upgrades in Berkeley County will bolster payrolls somewhat for the next two years. In addition, an expanding population with comparatively high disposable income levels should foster more retail and commercial developments in the area.



Figure 9: Employment Growth Forecast by Sector



Source: Workforce WV; WVU BBER Econometric Model

The professional and business services sector is expected to tally job growth of nearly 3 percent per year through 2019. Jefferson and Berkeley counties have managed to attract firms responsible for business support functions such as data centers, IT services, temporary employment agencies, as well as accounting and legal services for private companies and federal agencies operating in the Washington, DC, area. The federal contracting and subcontracting segment of this sector has weakened appreciably and will likely have additional headwinds going forward as lawmakers continue to debate solutions to close the federal budget deficit. However, prospects for the sector as a whole in the region are positive due to the availability of an educated (yet lower cost) labor force and cheaper acquisition costs for land and commercial buildings when compared to Northern Virginia and Maryland.

We anticipate public sector job growth in the two-county region will be significantly slower in comparison with the past 10 years. Nearly all of the job gains are expected to occur at the state and local levels, as high income levels along with anticipated population growth push demand for schools and other locally provided social services higher. Federal government jobs in the region are expected to remain under pressure over the duration of the outlook period. Federal fiscal concerns all but point to a high likelihood of much weaker growth—perhaps even outright cuts—in spending for many federal agencies.

The forecast calls for solid gains in the leisure and hospitality sector going forward, but these improvements are expected to come entirely from businesses tied to local consumer discretionary spending patterns and business travel. By contrast, the Hollywood Casino Resort in Charles Town has come under increasing pressure from the expansion of gaming into Maryland. Three new casinos in Rocky Gap, Hanover, and Baltimore have opened their doors in the past 2 years and have already



prompted a decline to the venue in Charles Town. In addition, the MGM National Harbor Casino Resort is slated to open its doors in Prince George's County during 2016, which will also weigh on visits to the Hollywood Casino Resort in Charles Town.

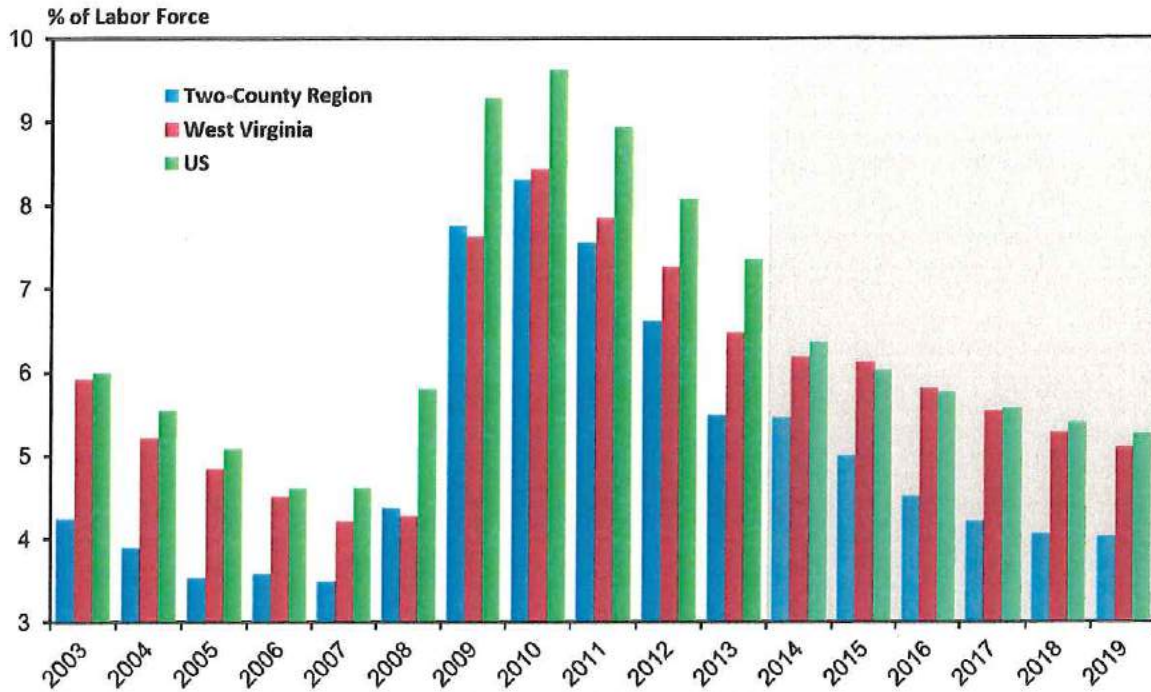
Education and health services providers operating within Berkeley and Jefferson counties are projected to increase employment at an average annual rate of 2.1 percent through 2019. Political uncertainty surrounding the Affordable Care Act in 2014 could hurt the sector's growth, but a growing elderly population and the location of several major health care facilities in the region provide enough of an impetus for the sector's expansion during the outlook. The manufacturing sector in Berkeley and Jefferson counties is expected to see payrolls expand at a rate of more than 1 percent per year. While portions of the manufacturing base will struggle going forward, local plastics, chemicals and building materials manufacturers will see underlying demand improve as a result of broader US economic growth and a stronger recovery in the housing market.

Employment in the region's trade, transportation and utilities sector is projected to increase 0.8 percent per year between 2014 and 2019. Population growth, rising incomes and greater household wealth created by higher home values and healthy equity markets bode well for local retailers. We also anticipate the Macy's facility will likely create spillover opportunities for development of additional wholesale trade, transportation and warehousing facilities along the I-81 corridor.

Strong job growth will allow the region's unemployment rate to fall over the course of the outlook period (Figure 10). Healthy labor force growth is expected to keep the jobless rate at or above 5 percent through mid-2015. The forecast calls for gradual declines to occur before it settles at a rate of around 4 percent in 2019—or roughly one percentage point below state and national averages. Jefferson County is expected to have the lowest unemployment rate throughout the forecast horizon, falling to 3.5 percent.



Figure 10: Unemployment Rate Forecast



Source: Bureau of Labor Statistics; WVU BBER Econometric Model; IHS Global Insight
 Note: Shaded region represents the forecast period

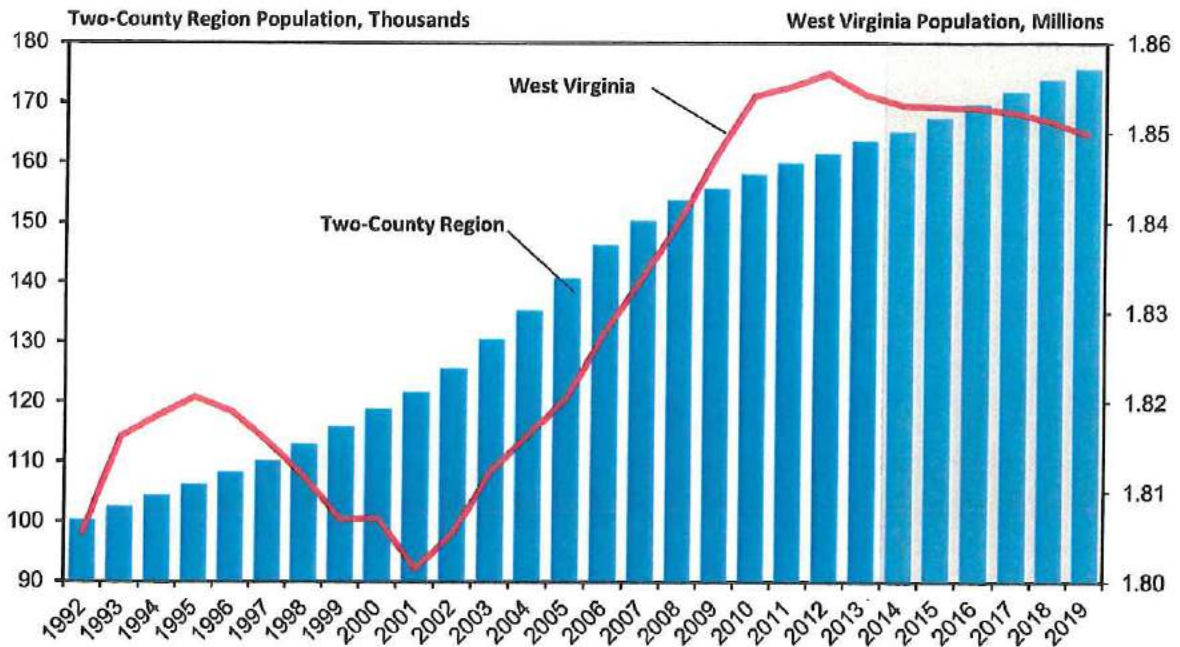
Unlike many other parts of West Virginia, Berkeley and Jefferson counties should continue to see consistent growth in the labor force over the next five years. In addition to the anticipated consistent flow of migrants into the region, the size of the under-18 population will only add to the local workforce as these individuals reach working age.

Inflation-adjusted per capita income growth in the two counties is projected to increase at an average annual rate of 2.0 percent through 2019, lagging state and national averages of 2.3 and 2.6 percent, respectively. Real wages and salaries earned by workers will expand as the region’s labor market tightens, while nonwage sources of income that include government transfer payments and investment returns such as capital gains/dividends should also record solid rates of growth.

The population of the Berkeley- and Jefferson-county region is expected to grow by just over 1.2 percent per year during the outlook period (Figure 11). Although this constitutes a rate of population growth for the region one percentage point lower compared to longer-term trends, it still represents an acceleration from the past few years. Berkeley and Jefferson counties are expected to register similar gains of 1.3 and 1.2 percent, respectively, through 2019 as migration in-flows return closer to normal historical levels.



Figure 11: Population Forecast



Source: Bureau of Labor Statistics; WVU BBER Econometric Model
 Note: Shaded region represents the forecast period

3 Economic Impact

This section measures the economic impact of the proposed pipeline in Berkeley and Jefferson counties. The economic impact of the pipeline consists of two primary impacts. First the construction of the pipeline itself provides a significant, but temporary, economic gain to the region. Second, the additional pipeline capacity provides long-run opportunities for economic growth because of greater access to natural gas resources for residents and businesses in the region.

The economic impact of the pipeline construction is more easily quantifiable, as it results from direct expenditures on the pipeline construction. For this impact, we rely on estimates of the pipeline construction costs outlined earlier in this report. The second impact relies on expectations for new businesses entering the region in the future as a result of greater access to natural gas resources. Because firms locate in a region for a wide variety of reasons, it is difficult to formulate a specific forecast for the impact of greater natural gas access. For this reason, we provide three possible scenarios for firm creation in the two-county region and then estimate the economic impact of each scenario.

To estimate the economic impact of the pipeline we use a sophisticated model of the region's economy.⁴ The economic impact of new construction or a new business starts with an estimate of the

⁴ This study was conducted using the IMPLAN 3.1 modeling software, an industry-standard input-output model of the economy. More information about IMPLAN can be found at <http://www.implan.com>.



initial spending that comes as a result of this new economic activity. This is called the direct impact of the project. However, the impact is not limited to the direct impact, but also includes the secondary economic impact accrued as those expenditures are re-spent through the rest of the economy. For example, during the construction of the pipeline, there is an initial expenditure for steel, land right of way, engineering services, etc. As the suppliers of these inputs increase production, their subsequent suppliers will increase production, and so on. Also, the pipeline will require workers to build the pipeline, part of whose income will be spent back into the local economy, generating more output, income, and employment impact. These secondary impacts together form what is known as the “multiplier effect.” The original stimulus to the economy from the pipeline is re-spent multiple times through the rest of the economy. The combined direct impact and secondary impacts together constitute the total economic impact of the construction.

3.1 Pipeline Construction

Engineering estimates predict that the pipeline is expected to cost between \$90 million and \$110 million to build over an 18-24 month time frame. We use these cost estimates as the basis for the direct impact of the pipeline construction in the economic impact analysis below. We then estimate economic impact over this range of cost estimates to find the indirect and induced impacts of the pipeline construction.

Pipeline construction is a rare event in the study region, particularly in Jefferson County where natural gas service currently does not exist in much of the county. Because of this we make the assumption that the distribution of construction costs, including labor, will be similar to other infrastructure projects in the region. This is a simplifying assumption that allows us to use established spending patterns available in our economic model to assess the impact of the project. We also have assumed that approximately half the workforce for the project will come from the local labor market, which is based on the expectations from the engineering team on this project. Lastly, we do not attempt to ascertain the negative economic impact of potential tax increases or rate increases to pay for the pipeline construction. Table 2 details the results of the economic impact analysis.

Table 2: Pipeline Construction Impact

	Low Construction Cost	High Construction Cost
Business Volume (millions)	\$135.6	\$165.8
Employment per Year (jobs)*	397	486
Employee Compensation per Year (millions)*	\$22.3	\$27.3
Total Taxes (million)	\$1.9	\$2.3

*Assumes a 24-month project timeline



At the low end of the construction cost forecast, we estimate that the initial economic impact from the pipeline construction will support 220 direct jobs during each year during the construction phase.⁵ These workers will earn a total of \$16 million in income each year. The initial \$90 million in spending for the pipeline results in \$135.6 million of total economic output in the economy over the course of the entire project. This results in a multiplier of approximately 1.5, meaning that one dollar of spending results in \$1.50 in economic impact. An additional 177 jobs are estimated to be generated each year through the secondary impacts to the economy, for a total of 397 jobs per year. Total employee compensation is more than \$23 million per year. We estimate that the entire project will generate \$1.9 million in corporation net income taxes, personal income taxes, and sales taxes paid by companies and individuals.

If construction costs reach the higher end of the cost forecast, we estimate that the total economic impact from the pipeline construction would be nearly \$166 million. This spending would support 269 jobs directly, and an additional 217 jobs indirectly, for a total employment impact of 486 jobs during each year of the construction. The pipeline construction is estimated to result in \$27.3 million in employee compensation each year, and generate more than \$2.3 million in taxes.

3.2 Long-Run Economic Impact

Anecdotal evidence from the area's economic development agencies suggests that many firms that might consider locating in Berkeley and Jefferson counties require natural gas. These firms operate in a wide variety of industries, including food processing, metals manufacturing, plastics manufacturing, and consumer products manufacturing. Though it is difficult to ascertain all of the reasons why firms locate in a particular area, officials have reason to believe that a significant number of firms have declined to locate in the two-county region in part because of lack of access to natural gas resources.

Because there exists considerable uncertainty about the potential for new business formation in response to increased access to natural gas, we present three possible scenarios that estimate different levels of potential economic impact as a result of the new pipeline. In the first scenario, we examine the introduction of a small food products manufacturer into the local economy. In the second scenario we examine a medium-sized consumer products manufacturer. And in the last scenario we examine the impact of a large plastics products manufacturer. The scenarios presented in this section are loosely based on actual companies that have expressed interest in locating in the two-county region. They have been disguised in order not to reveal the companies' development plans.

3.3 Scenario 1: Food Products Manufacturer

For the first scenario, we examine the impact of a small food products manufacturer that chooses to locate within Berkeley and Jefferson counties. The food products manufacturer is assumed to employ 150 people. Using our economic model's measure of output per worker in this sector, this manufacturer would produce approximately \$44 million per year in economic output, with approximately \$2.6 million in worker income. Table 3 details the estimated economic impact of this manufacturer.

⁵ Average yearly economic impact results assume a 24-month project timeline with equal investment each year.



Table 3: Scenario 1 Economic Impact Summary

	Direct Impact	Indirect & Induced Impact	Total Economic Impact
Business Volume (\$, millions)	44.1	14.7	58.7
Employment (jobs)	150	70	220
Employee Compensation (\$, millions)	2.6	2.7	5.3
Total Taxes (\$, thousands)	111.2	117.5	228.7

After accounting for indirect and induced impacts of this economic activity, we estimate that the food manufacturer would produce a total of \$58.7 million of business volume per year, which represents an economic multiplier of 1.33. In addition to the 150 jobs employed directly at the factory, an additional 70 jobs will be created as a result of increased economic activity, for a total employment impact of 220 jobs. The manufacturer will generate approximately \$5.3 million in income for local workers, and nearly \$229 thousand in additional taxes.

3.4 Scenario 2: Consumer Products Manufacturer

For the second scenario, we estimate the impact of a medium-sized manufacturer of consumer products. For this scenario, we assume the manufacturer will have 300 employees on a year-round basis. Table 4 details the results of the economic impact analysis.

Table 4: Scenario 2 Economic Impact Summary

	Direct Impact	Indirect & Induced Impact	Total Economic Impact
Business Volume (\$, millions)	79.1	28.6	107.7
Employment (jobs)	300	168	468
Employee Compensation (\$, millions)	12.7	6.2	18.9
Total Taxes (\$, thousands)	568.4	269.6	838.0

Using our assumed employment figure, our economic model predicts the consumer products manufacturer would produce approximately \$79 million per year in direct economic output, with approximately \$12.7 million in worker compensation. These direct impacts lead to almost \$108 million in total economic activity, after accounting for secondary impacts, an economic multiplier of 1.4.



The total employment impact is 468 jobs, including the 300 direct jobs and another 168 in secondary impact, which represents an employment multiplier of 1.6. Workers would earn almost \$19 million in compensation, and total taxes paid to state and local government would total \$838 million.

3.5 Scenario 3: Large Plastics Manufacturer

In the last scenario we estimate the impact of a large plastics manufacturer with 500 employees. Table 5 details the results of the economic impact analysis.

Table 5: Scenario 3 Economic Impact Summary

	Direct Impact	Indirect & Induced Impact	Total Economic Impact
Business Volume (\$, millions)	122.9	32.4	155.3
Employment (jobs)	500	206	706
Employee Compensation (\$, millions)	22.7	7.2	30.0
Total Taxes (\$, thousands)	983.3	319.8	1,303.1

The plastics manufacturer in this scenario is estimated to produce approximately \$123 million per year in direct economic output, with an additional \$32 million in secondary impacts, resulting in an economic multiplier of 1.4. This spending leads to a total employment impact of 706 jobs, with approximately \$30 million in worker compensation. Total taxes paid to state and local government would be \$1.3 million.

4 Conclusions

Berkeley and Jefferson counties are among the fastest-growing in West Virginia, both in terms of employment and population. Over the next five years, we forecast employment growth in the two-county region will rise much faster than the state average, and the unemployment rate to remain well below the state average. Population has risen by more than one-fourth in the past 10 years, and the two-county region is expected to add more than 10 thousand residents over the next five years. This robust growth expectation provides a favorable environment for natural gas resource demand.

The pipeline construction is expected to inject between \$63 million and \$127 million in economy activity over the approximately two-year construction timeline, depending on the actual size and scope of the construction itself. This spending in the local economy is expected to support between 594 and 1,188 jobs during the construction phase of the project.

More importantly, however, construction of the pipeline would provide the region greater access to natural gas over the long run. This allows local residents to utilize a comparatively inexpensive source of fuel for heating, as well as provides greater opportunities for business expansion in the region as companies move in to take advantage of greater resource access.



In the last part of our analysis, we consider a few alternative scenarios of businesses that might be inclined to locate into the region after adequate natural gas services have been established. These scenarios were developed in consultation with several regional economic development organizations that have participated in conversations with various outside firms in recent years about the necessity for adequate natural gas service before such firms could move into the region.

In our first hypothetical scenario, we estimate that a relatively small manufacturing company that moves into the region would inject nearly \$59 million into the local economy and provide support for 220 jobs each year. In an alternate scenario, a larger firm would have bigger impact, providing more than \$150 million in economic activity, and employing more than 700 workers on a yearly basis. These scenarios are not mutually exclusive, as greater resource access has the potential to attract multiple firms. Though it is difficult to predict how firms will respond to increased access to natural gas, the pipeline project represents a long-term investment that has the potential to enhance the attractiveness of the region to businesses.



About the Bureau of Business and Economic Research

Since the 1940s, the BBER's mission has been to serve the people of West Virginia by providing the state's business and policymaking communities with reliable data and rigorous applied economic research and analysis that enables the state's leaders to design better business practices and public policies. BBER research is disseminated through policy reports and briefs, through large public forums, and through traditional academic outlets. BBER researchers are widely quoted for their insightful research in state and regional news media. The BBER's research and education/outreach efforts to public- and private-sector leaders are typically sponsored by various government and private-sector organizations.

The BBER has research expertise in the areas of public policy, health economics, energy economics, economic development, economic impact analysis, economic forecasting, tourism and leisure economics, and education policy, among others. The BBER has a full-time staff of three PhD economists, two master's-level economists, and one bachelor's-level economist. This staff is augmented by graduate student research assistants. The BBER also collaborates with affiliated faculty from within the College of Business and Economics as well as from other parts of WVU.

To learn more about our research, please visit our website at <http://www.be.wvu.edu/bber>.



New Customer Matrix for Peak Daily Flowrates

Region 9 Gas Feasibility Study

New Customer Matrix for Peak Daily Flowrates

Residential Units	500.00	750.00	1,000.00	1,500.00	2,000.00	3,000.00	5,000.00	10,000.00
Commercial Bldgs	10.00	15.00	25.00	40.00	60.00	80.00	100.00	150.00
Industrial Plants	1.00	2.00	4.00	6.00	8.00	10.00	12.00	14.00
Power Generation	-	-	-	-	-	-	-	1.00
Total Burn (mmcf/d)	5,330.00	9,995.00	19,160.00	28,990.00	39,320.00	49,980.00	61,300.00	107,600.00

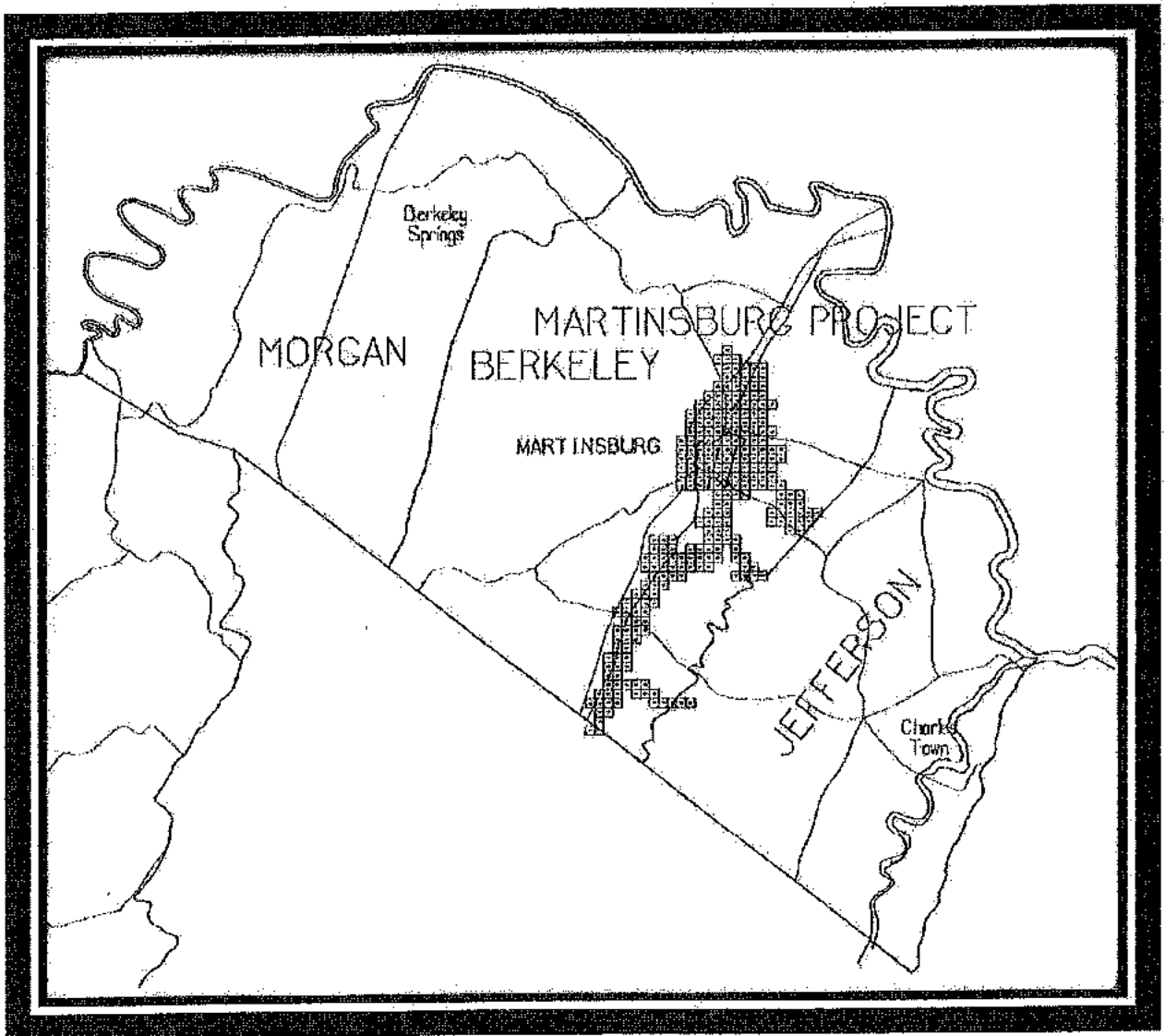
**Assumed Demand Growth
(20 Year Window)**

35,000 <-----> 65,000

Mountaineer Gas Company of WV - Martinsburg System Overview

Mountaineer Gas - Martinsburg System Overview

- Approximately 138 miles of distribution main
- 4,596 residential customers
- 987 general service (commercial) customers
- 31 transportation customers
- Single source system with limited additional capacity
- The Martinsburg Service Center is staffed with 8 full time employees



Breakdown of Cost for New Pipeline – NORTH OPTION – 31.5 Miles

Region 9 Gas Feasibility Study

Breakdown of Cost for New Pipeline - NORTH OPTION - 31.5 Miles
 16" ANSI 600 Built to Class III Transmission Line Standards

Pipeline Construction Component	16" Pipeline Average Cost/Mile \$	Total Estimated Cost/Component \$
Environmental Studies	\$ 900	\$ 28,350
Endangered Species Studies	800	25,200
Route Preliminary Surveys	1,400	44,100
Courthouse Work on ROW	4,500	141,750
Landman Activities	15,000	472,500
ROW Payments	132,000	4,158,000
ROW Special Conditions Burden	2,500	78,750
Crop Damage	24,250	763,875
Timber Damage	40,000	1,260,000
Directional Boring Design	1,250	39,375
Directional Boring Permits and Engineering	1,500	47,250
Directional Boring	245,000	7,717,500
Pipe Design	1,000	31,500
Cathodic Protection Design	1,250	39,375
Ground Beds and Rectifier Design	750	23,625
Rectifier Site Acquisition	1,500	47,250
Interference Testing	1,500	47,250
State Permits	4,500	141,750
Stream Waterways Permits	5,500	173,250
Highway Crossing Permits	5,500	173,250
Railroad Crossing Permits	7,500	236,250
Wetlands Delineation	1,500	47,250
Pipe Procurement	575,000	18,112,500
Transportation	10,000	315,000
Installation	675,000	21,262,500
E&S Permits	4,500	141,750
E&S Measures	5,000	157,500
Pressure Testing	5,500	173,250
Dry Out	4,200	132,300
Rock Clause	145,000	4,567,500
Bedding Material	45,000	1,417,500
Rock Shield	20,000	630,000
Fittings, Valves, Risers, Pig Launchers, etc.	275,000	8,662,500
Meters	250,000	7,875,000
Damage Prevention/Line Marking	10,000	315,000
Compliance Related Costs	35,000	1,102,500
Commissioning/Purging	1,200	37,800
Contingencies at 25%	640,000	20,160,000
Total	\$ 3,200,000	\$ 100,800,000

Breakdown of Cost for New Pipeline – EAST OPTION – 21.5 Miles

Region 9 Gas Feasibility Study

Breakdown of Cost for New Pipeline - EAST OPTION - 21.5 Miles
 16" ANSI 600 Built to Class III Transmission Line Standards

Pipeline Construction Component	16" Pipeline Average Cost/Mile \$	Total Estimated Cost/Component \$
Environmental Studies	\$ 900	\$ 19,350
Endangered Species Studies	800	17,200
Route Preliminary Surveys	1,400	30,100
Courthouse Work on ROW	4,500	96,750
Landman Activities	15,000	322,500
ROW Payments	132,000	2,838,000
ROW Special Conditions Burden	2,500	53,750
Crop Damage	24,250	521,375
Timber Damage	40,000	860,000
Directional Boring Design	1,250	26,875
Directional Boring Permits and Engineering	1,500	32,250
Directional Boring	245,000	5,267,500
Pipe Design	1,000	21,500
Cathodic Protection Design	1,250	26,875
Ground Beds and Rectifier Design	750	16,125
Rectifier Site Acquisition	1,500	32,250
Interference Testing	1,500	32,250
State Permits	4,500	96,750
Stream Waterways Permits	5,500	118,250
Highway Crossing Permits	5,500	118,250
Railroad Crossing Permits	7,500	161,250
Wetlands Delineation	1,500	32,250
Pipe Procurement	575,000	12,362,500
Transportation	10,000	215,000
Installation	675,000	14,512,500
E&S Permits	4,500	96,750
E&S Measures	5,000	107,500
Pressure Testing	5,500	118,250
Dry Out	4,200	90,300
Rock Clause	145,000	3,117,500
Bedding Material	45,000	967,500
Rock Shield	20,000	430,000
Fittings, Valves, Risers, Pig Launchers, etc.	275,000	5,912,500
Meters	250,000	5,375,000
Damage Prevention/Line Marking	10,000	215,000
Compliance Related Costs	35,000	752,500
Commissioning/Purging	1,200	25,800
Contingencies at 25%	640,000	13,760,000
Total	\$ 3,200,000	\$ 68,800,000

Memo - Payment in Lieu of Tax ("PILOT") Arrangements



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MEMORANDUM

TO: File
FROM: John Stump
DATE: December 12, 2014
RE: Economic Incentives - Payment in Lieu of Tax Arrangements

PILOT Arrangements Generally

Payment in Lieu of Tax Arrangements (“PILOT”) are routinely employed in West Virginia to reduce or eliminate ad valorem property taxes as an incentive to attract location of, or investment by, industrial or commercial businesses. In a typical PILOT arrangement, a project sponsor conveys real or personal property, or both, to a governmental entity, the governmental entity holds title to such property, and then leases the property back to the private entity. Since government-owned property is generally exempt from property taxation, the private entity is able to reduce its property tax burden by pursuing the sale/leaseback transaction and agreeing to make payments in lieu of taxes. The West Virginia Economic Development Authority (the “WVEDA”) is the preferred entity to use for the sale/leaseback arrangement, since the WVEDA’s authorizing legislation clearly states that such lease arrangements are considered to be for a “public purpose,” and because of the experience that the WVEDA has with such arrangements. The key parties to work with in connection with a PILOT Agreement are the County Commission of the county where the project will be located and the WVEDA’s executive director and staff.

Currently, there is no statutory restriction on the length of a PILOT Agreement.

The timeframe to negotiate a sale/leaseback transaction and PILOT Agreement varies. If the County Commission and other county officials are supportive of a project, the process might take anywhere from three to six months. If county officials are not fully supportive, or if

litigation is instituted, the process could take well over a year. As noted above, it is in the best interests of the private entity to approach county officials and the WVEDA early in the process. For a large project, the WVEDA would dedicate substantial resources in order to come to an agreement.

Parties to a PILOT Agreement

The PILOT agreement is generally negotiated between the county commission and the private entity before title transfers to the county commission, county building commission, the WVEDA, or local development authority, and, in the case of a transfer to a development authority, the county commission is fully involved in, and kept abreast of, the plans to transfer the property to a tax exempt entity in order to abate property tax. The governmental entities understand that it is in their best interest to receive some remuneration through a PILOT agreement, and the various governmental entities in the county are typically willing to receive an amount less than the property tax that they would otherwise receive since the new business will add to the tax base of the county as a result of hundreds, or sometimes thousands, of jobs flowing into the county.

Local authorities – the beneficiaries of ad valorem tax payments and PILOT payments alike – are involved in the PILOT process, and a written agreement is entered into by local government officials and representatives of the private entity. Typically, parties to PILOT agreements include the private entity that leases the property and the County Commission, Board of Education, Sheriff and Assessor of the county where the property subject to the PILOT is located.

Legal Documents and Key Language

In West Virginia, there would likely be three primary legal documents prepared in conjunction with the transfer of real and personal property to a governmental entity in furtherance of a PILOT: 1) a facility development agreement; 2) the asset purchase and lease agreement in which the private entity transfers certain property to a governmental entity and then leases that property back from the governmental entity; and 3) the PILOT agreement with the County Commission, County Board of Education, County Sheriff, and County Assessor. As a general matter, the three agreements should include language specifying that they are enforceable according to their terms.

Basis of PILOT Payments

The recommended practice for determining an amount that the business entity will pay under to PILOT is to agree to an amount at the onset of the PILOT. The annual amount paid under the PILOT can be level throughout the life of the project, or the payments can be graduated.

Reporting to Tax Commissioner

The statute that describes the total basic state aid allowance for public schools recognizes that certain counties have entered into PILOT agreements in which those counties receives payments or contributions in lieu of property taxes. W. Va. Code § 18-9A-12(c). Under this subsection, the Tax Commissioner is required to provide the State Board of Education, by January 15th of each year, a certified listing of those counties in which an adjustment to the state share aid formula resulting from a PILOT is required, along with the amount of revenue that is available to each county board of education in the ensuing fiscal year as a result of a PILOT. Adjustments are then made to the amount of state aid distributed to that county pursuant to the state share aid formula. The private entity's PILOT would be included in this reporting.

Distribution of PILOT Payments to Levying Bodies

The PILOT payments are distributed to the various levying bodies in the county¹ – the county itself, the county school board, and municipalities if the property is within municipal limits – as if the payments were ad valorem property tax payments. Essentially, the PILOT payments are viewed as a “substitute” for ad valorem property taxes. Each county, school board and municipality in the State of West Virginia has the authority to establish a regular levy rate and, if approved by voters, an excess levy rate.

As a general rule, approximately 75% of PILOT payments are allocated to the County Board of Education, approximately 20-25% of PILOT payments are allocated to the County Commission, and the remainder of PILOT payments are allocated to municipalities and the State of West Virginia.

Distribution of Lease Payments to Levying Bodies

Unlike PILOT payments, lease payments are not treated as a substitute for ad valorem property taxation. Distribution of lease payments are often negotiated between the governmental entity that will own the property and the private entity that will lease the property from the governmental entity. The amount of lease payments is based on what the private entity and governmental agency are comfortable with, and it may be a nominal amount or it may be a more substantial amount, depending on the negotiations. Typically, when the WVEDA is involved, the amount of lease payments is minimal.

¹ The State of West Virginia also receives a small share of property tax receipts in each County, typically less than 1% of collections.