

# SUMMERS COUNTY AND THE MOUNTAIN VALLEY PIPELINE



**MAY 2016**  
Key-Log Economics

## SUMMERS' ECONOMY: WHAT'S AT RISK

In Summers County, otherwise known as “The County of Three Rivers,” residents depend on a clean and healthy environment to sustain a high quality of life. Summers County relies on these rivers to draw vacationers for fishing, canoeing, and rafting. The county is also a destination for visitors who return year after year to reserve their favorite cabin in one of the County’s state parks where they can hike through rugged mountainous terrain offering breathtaking ridge top views as well as access to public and private hunting lands. The Mountain Valley Pipeline, which would run 16.5 miles in Summers, has triggered widespread concern over potential effects to the local community, water resources, land, and economy. This report describes the assets and trends that may be at risk if the Mountain Valley Pipeline were built and summarizes research on the potential economic impacts on land value, natural benefits, and key economic sectors in Summers.

## At a Glance:

### The Mountain Valley Pipeline in Summers County

- ❖ Miles of pipeline: 16.5
- ❖ Acres in the construction corridor, permanent right-of-way (ROW), and surface infrastructure: 319, 99, and 6
- ❖ Most impacted land cover type (ROW only): forest (81 acres)
- ❖ Parcels touched by ROW: 56
- ❖ Parcels in the 1.4-mile-wide evacuation zone: 406
- ❖ Residents and housing units in the evacuation zone: 835 people and 80 homes (includes vacation homes whose owners would be counted in the county of their primary residence)
- ❖ Parcels from which the pipeline would be visible: 3,494, or 25% of all parcels in Summers County
- ❖ Baseline property value at risk (and expected one-time cost due to the MVP):
  - In the ROW: \$5.6 million (\$235,100 to \$727,600)
  - In the evacuation zone: \$40.6 million (\$1.5 million)
  - In the viewshed: \$345.5 million (to avoid double counting with lost aesthetic value under ecosystem services, this effect is not separately estimated)
- ❖ Total property value lost (a one-time cost): \$1.8 to \$2.3 million
- ❖ Resulting loss in property tax revenue (annual): \$6,200 to \$7,900
- ❖ Economic value of lost ecosystem services such as for water and air purification, recreational benefits, and others:
  - Over the two-year construction period (a one-time cost): \$3.0 to \$10.7 million
  - Recurring every year for the life of the MVP (annual): \$524,300 to \$1.9 million
- ❖ Lost economic development opportunities due to the erosion of Summers County's comparative advantages as an attractive place to visit, reside, and do business. Under the scenarios described below, these could include:
  - Annual loss of recreation tourism expenditures of \$1.9 million supporting 31 jobs, \$500,000 in payroll, and \$125,200 in state and \$24,500 in local taxes
  - Annual loss of personal income of \$226,200 due to slower growth in the number of retirees
  - An annual minor loss of personal income due to slower growth in sole proprietorships
- ❖ Total estimated costs:
  - One-time costs (lost property value and lost ecosystem service value during construction) would total between \$4.8 and \$12.9 million
  - Annual costs (costs that occur year after year) would range from \$2.7 to \$4.1 million
    - Present discounted value of all future annual costs (discounted at 1.5%): \$177.8 to \$270.5 million
  - One-time costs plus discounted value of all future annual costs: \$182.6 to \$283.4 million

Note: For a number of reasons, these estimates are conservative and the actual economic cost of the MVP, if built, could be much higher. For details, please see the full report, "Economic Costs of the Mountain Valley Pipeline to Property Value, Ecosystem Services, and Economic Development in Virginia and West Virginia," available for download at [keylogeconomics.com](http://keylogeconomics.com).

Summers is a rural county of steep-sloped mountains and fertile river valleys with many historic and quaint characteristics of the past and an overall strong sense of community. The Mountain Valley Pipeline would run through 16.5 miles of northeast Summers County through the Keeney Mountain range—site of southern West Virginia’s highest peak (Keeney’s Knob) at 3,921 feet—and descending into the Greenbrier River Valley at Pence Springs, the northern edge of the karst corridor which extends through Monroe County and into Virginia. Nestled in the Allegheny Plateau, Summers possesses an abundance of areas for outdoor recreation including the three rivers that flow through the county—the Greenbrier, New, and Bluestone—Bluestone Lake, which is the third largest lake in the State, as well as the 2,100 acre Bluestone State Park and Pipestem Resort Park (New River Gateway 2015). The county is also the gateway to the New River Gorge National River and home to the Bluestone National Scenic River, both part of the National Parks of Southern West Virginia (New River Gateway 2015). The Summers County seat is Hinton, a historic railroad town with one of the largest historic districts in the country and home of the WV State Water Festival. In the Pence Springs/Lowell/Talcott area are the Pence Springs Hotel Historic District, the Greenbrier Academy for Girls, the Graham House (one of the oldest houses in West Virginia), family friendly events like the John Henry Days festival, and area nurseries and markets. All these features contribute to and benefit from Summers’ beautiful, clean environment.

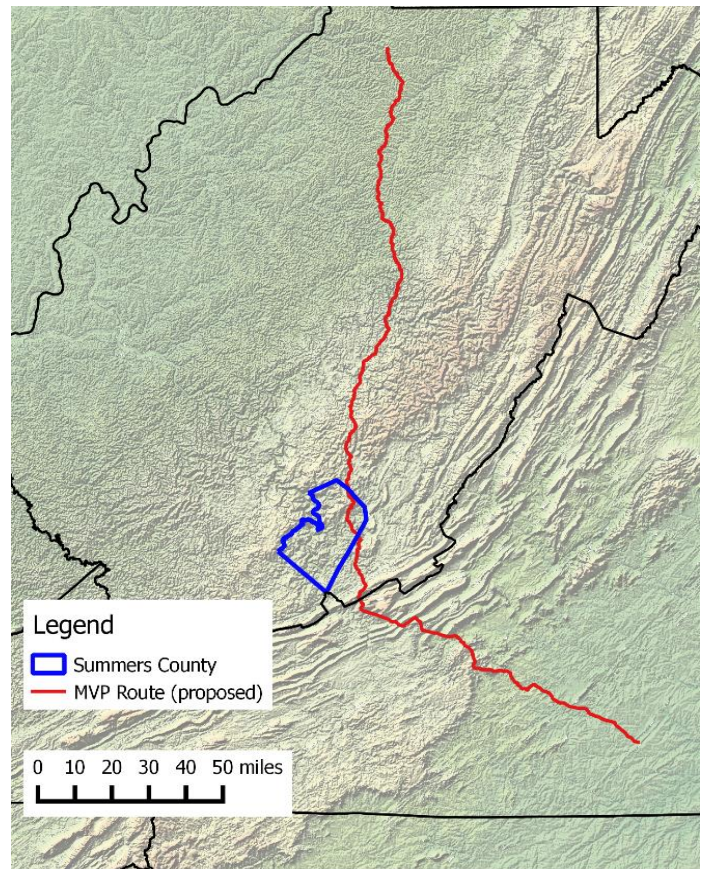
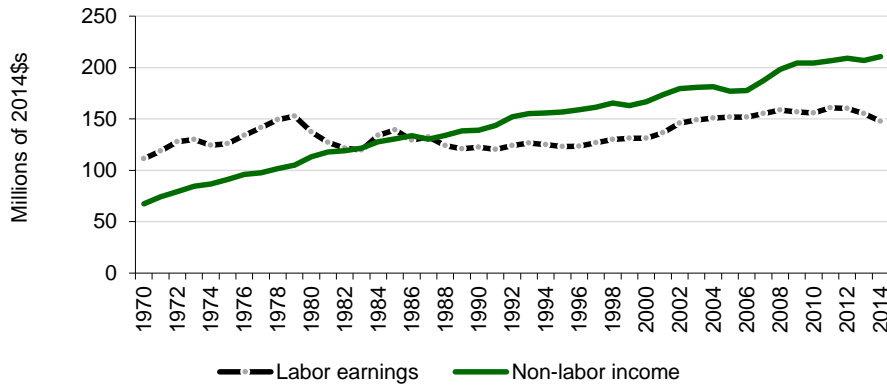


FIGURE 1 THE ROUTE OF THE PROPOSED MOUNTAIN VALLEY PIPELINE THROUGH SUMMERS COUNTY

## Recent Trends

From 2000 to 2013, the population over the age of 65—often retirees who can choose where to live—grew from 15.4% to 20.3%.<sup>1</sup> Retirees bring their incomes, and when they spend it they create opportunities for economic development, including in higher-end services such as healthcare and financial services. Although the

<sup>1</sup> Age distribution data is the most recent available from the US Census Bureau (2015).



**FIGURE 2: COMPONENTS OF PERSONAL INCOME, SUMMERS COUNTY (SOURCE: HEADWATERS ECONOMICS 2015, US BUREAU OF ECONOMIC ANALYSIS 2015)**

older population of Summers increased, the county’s overall population decreased by 6.5% between 2000 and 2014 (Headwaters Economics 2015; US Census Bureau 2015).<sup>2</sup> The population decrease is largely driven by an out-migration. Between 2000 and 2014, the county experienced an average annual net out-migration of 83 people, contributing to 66.8% of

population decline. Other factors influencing population decline include the older demographic’s higher-than-average mortality rate, a low percentage of younger people moving into the county, and a high percentage of young adults leaving—a phenomenon known as a “brain drain” (Summers County 2016). To combat the “brain drain” and increase population and job growth, Summers County governmental and non-governmental organizations have identified certain services, industries, and recreational opportunities in hopes of attracting younger professionals to the county.

Summers residents also receive “non-labor income” in the form of earnings on investments (dividends, interest, and rent) and transfer payments, such as Social Security and Medicare. As a share of the total, non-labor income now accounts for 59 out of every 100 dollars earned or received by county residents, almost 20% higher than the rate was in 1970. Since 2000, non-labor income has grown by 26.3%. This does not mean labor earnings are unimportant. Wages, salaries, benefits, and self-employment income still make up 41.2% of personal income in the county, increasing by 12.5% since 2000.

Like retirees, entrepreneurs and small business owners in a variety of industries choose where they locate, basing their decisions on amenities and quality of life, rather than on access to input or output markets or other traditional business concerns (Rasker and Glick 1994). One indicator of this phenomenon in Summers is the growth in the number of sole proprietorships. By 2014, Summers’ 1,140 sole proprietors accounted for about 30.9% of jobs, growing by 10% since 2000. The growth in sole proprietors illustrates the extent to which the creative activity of the county’s new and long-time residents drives economic development.

<sup>2</sup> Unless otherwise noted, all employment, income, and population figures are from Headwaters Economics (2015), US Census Bureau (2015), and US Bureau of Economic Analysis (2015).

Travel and tourism are also an important and growing part of Summers County’s economy. The industry—composed of passenger transportation, arts, entertainment, recreation services, accommodation, food services, and portions of the retail sector—represents 19.5% of total private employment in the County. Community members identify Summers’ unique environmental qualities, rural landscape, local character, and historic and cultural sites as areas of particular importance to the county’s tourism industry (Summers County 2016, 89).

Even though the recreation and tourism industry is important in Summers, Summers and other counties throughout West Virginia have experienced decreases in traveler related revenue. Between 2010 and 2014, Summers saw a \$1.8 million decrease in traveler expenditures,<sup>3</sup> a 19.4% decrease in travel generated employment, and a \$1 million decrease in travel related payroll (Dean Runyan Associates 2015).<sup>4</sup>

*Environmental Integrity and Conservation:  
Environmental Qualities Worthy of Recognition or  
Protection*

- 1) Water quality of the County's rivers and streams*
- 2) Clean air*
- 3) Beautiful Scenery*
- 4) Minimal sprawl and undesirable development*
- 5) Undeveloped "Wild and Wonderful" areas*
- 6) Abundant wildlife and good hunting and fishing opportunities*
- 7) Lots of open space*

-Summers County Comprehensive Plan

This reflects, in part, budgetary constraints at the state level which have resulted in diminished allocations to the State’s park system, an important revenue stream for Summers County. The decreases also reflect impacts of the larger nationwide recession. Summers County’s state parks and campgrounds, as well as its privately owned river-sited campgrounds, are still vacation destinations for many southern West Virginians and information from the county’s comprehensive plan suggest the county is prioritizing maintaining the environmental integrity of the area in hopes of revitalizing the tourism and recreation industry.

In addition to tourism, agriculture is an important natural resource-using, and producing, industry in the county accounting for 9.3% of all employment.<sup>5</sup> The average for non-metro West Virginia, by contrast, is 4.2%.

A relatively low unemployment rate and higher than average personal income growth further indicate Summers County’s overall economic health. The unemployment rate was 7.0% in 2014 compared to 7.4% for all

<sup>3</sup> Purchases by travelers during their trip, including hotel/motel occupancy taxes and other applicable local and state taxes, paid by the traveler at the point of sale (Dean Runyan Associates 2015).

<sup>4</sup> All dollar values have been adjusted for inflation.

<sup>5</sup> For agriculture, a different data source that includes all employment is used (Headwaters Economics 2015; US Bureau of Economic Analysis 2015).

of non-metro West Virginia. PCPI increased by 20.2% between 2000 and 2014, slightly higher compared to 19.6% for all of non-metro West Virginia.

Although Summers County's current economic conditions are less than favorable, the county's comprehensive plan recognizes "in recent years, there has been a noticeable increase in tourism, technology-related industries, and retirees re-locating to the area" (Summers County 2016). While some claim that the pipeline will bring some benefits (Ditzel, Fisher, and Chakrabarti 2015), and Governor Tomblin has said such infrastructure would "create promising opportunities for future generations,"<sup>6</sup> public officials must consider how the MVP would change Summers' current conditions and whether such change would really be for the better. Our research, summarized in this report, shows some of the ways in which the MVP could make things worse.

## Impacts of the MVP

### Property Values

The MVP would affect property values in three ways: from loss of use and enjoyment of the property, from safety risks, and from diminished aesthetic quality of views. With some overlap, these effects would be most prominent in three zones: in the right-of-way (ROW), in the evacuation zone (including a narrower "high consequence area"), and within sight, or in the viewshed, of the pipeline.

Loss of use and enjoyment of properties would be felt most acutely by owners of parcels the proposed 50-foot-wide ROW crosses or touches. Forestland in the ROW will be stripped and converted to shrub or grassland, eliminating the prospect of future timber income and limiting the ability of residents to continue to rely on wood for heating (Williams 2015). Also, cropland in the ROW cannot be managed in the same way due to restrictions on the landowner's ability to cross the pipeline with heavier farm equipment (Monroe and Monroe 2015; Leech 2015). This means farm and forestland adjacent

*"There would be a significant loss of timber for all affected property owners. Most everyone relies on wood heat--this would be a significant loss to everyone. Homeowners are sometimes without electricity for weeks during a storm, and there would be no way for many individuals to heat their homes. Any alternatives would be much more expensive...In our case, about 1/3 of our accessible wood would be destroyed, while a gas line would be about 100 yards from our home."*

*-Dwayne Milam, Summers County Landowner*

---

<sup>6</sup> Quoted in Mountain Valley Pipeline (2016).

to the ROW would become less valuable if it becomes more expensive to reach woodlots or fields on the far side of the ROW.

Current and future residential housing is another productive use of land potentially suffering an economic loss from the MVP. People now living on parcels in the ROW will feel less safe, will be deprived of the peace, quiet, and scenic views paid for when properties were initially purchased. Residents of the county are also concerned about the unprecedented risks to the rivers and streams of Summers County which, as source waters, provide water to the households and businesses within the Big Bend Public Service District in Talcott and to hundreds of private wells and springs. There would also be a loss for potential subdivision and development depending on how and where the pipeline crosses unimproved properties.

These economic losses translate into financial losses when current owners attempt to sell their properties and find buyers are far less interested in them. Patricia Laurell from Blacksburg, Virginia, a real estate appraiser with over 25 years of experience, found that properties near pipeline installation areas result in decreased property values due to visual contamination (Laurell 2015). Alinda Perrine, a real estate agent from Lewisburg, WV, found that the possibility of a pipeline “is a major issue, one about which you must inform your clients” (Perrine 2015). In nearby Montgomery County, VA, Christian Reidys, a professor at Virginia Tech, recently purchased 5.2 acres with a vision of building a home. However, a month after the purchase, he learned that the MVP route would cross through his property. The home building project was canceled, and Reidys and his Realtor, Jim Sarver, agreed they were ethically bound to disclose the potential pipeline crossing to potential buyers of the property. Sarver stated he does not “see how anyone could buy the property with that [the

### Potential Loss in Property Value

Ashby Berkley, a Summers County businessman, has been very involved in community affairs, helping restore the historic Pence Springs Hotel and donating hundreds of thousands of dollars to fund a public water supply for Pence Springs. The Mountain Valley Pipeline is surveyed to pass through his property in Pence Springs, completely destroying “the use, purpose, business operation, well, commercial septic system, two rental houses, and public campground on this property.”

Berkley's property is on a highly valuable strip of land between State Rt 3 and the Greenbrier River with a value in excess of \$250,000. The MVP right-of-way would take the entire strip of land and the commercial campground, valued at another \$250,000. This property generates permanent local employment and income to Berkley. Also, it is located above the site of water intake for the Big Bend Public Service District, which serves hundreds of homes and where Berkley's company freely contributed over \$300,000 to the effort to secure safe water and sewer systems for the citizens and businesses of the Pence Springs.

pipeline's] uncertainty," and Reidys has one contract on the property contingent on the parcel not including a natural gas easement (Adams 2016).

Based on the current value of Summers County properties, as well as surveys of buyers, realtors, and appraisers (Kielisch 2015),<sup>7</sup> the total loss of property value for the 56 parcels touched by the proposed pipeline ROW in the county ranges from \$235,100 to \$727,600.

Properties outside the ROW, but still near the pipeline, would also suffer a loss in value. First there is a "high consequence area," within which one's survival of an explosion would be unlikely. The high consequence area would be 0.4 miles wide (1,092 feet on either side) for a pipeline of this size. There is also a 1.4-mile-wide evacuation zone (3,583 feet on either side), defined as the area an unprotected human would need to move beyond in order to avoid burn injury in the event of an explosion or a fire following a leak. Living with the 24/7/365 possibility of having to evacuate one's home or business at a moment's notice, if notice is even possible, diminishes the value of the property to its owner.

*"Currently I do not derive any income from my property, as I just retired in January, 2015. My plans were to build a house on my property immediately, grow some of my own food, and provide building sites to family who share my dreams. These plans are on hold until I know if the pipeline is going through my fields and destroying my dreams, my view, the value of my land, and any feeling of security that I will not be blown to hell someday. I worked my entire life to purchase a large and beautiful tract of land and move back to my home state and live a simpler life far from the maddening crowds."*

*-Mark Jarrell, Retired Summers County Landowner*

As with the effects within the ROW, the loss of value to owners within the high consequence area and the larger evacuation zone translates into lower prices if and when current owners choose to sell. At least one ROW landowner has been told by two insurance agencies that rates would likely increase for properties like hers if, indeed, coverage remains available at all (Roston 2015). The effect in the high consequence area, arguably, would be greater than in the evacuation zone. However, due to a lack of studies estimating such a difference, we are conservatively assuming that the effects within the entire evacuation zone, including within the high consequence area, are the same.

---

<sup>7</sup> Some of our estimates based on the survey of prospective home buyers reported in Kielisch (2015) are conservative. Some 62.2% of the survey respondents said they would not purchase a property with a pipeline (smaller than the MVP would be) at any price. The remaining survey respondents were split between those who would offer 21% less and those who would offer the same amount. In our estimates we use the average price reduction for just those buyers who stay in the market—an average reduction in offer price of 10.5%. If one considers that 62% of buyers are effectively reducing their offer prices by 100%, the average reduction in offer price would be 66.2%.



The evacuation zone through Summers would touch 406 parcels, not counting the 56 parcels in the ROW. Based on the current value of these properties and research on the decrease in property value due to a risk of evacuation (Boxall, Chan, and McMillan 2005), the MVP would induce an additional loss of \$1.5 million in property value.

Depending on topography, the pipeline will also be visible for many miles in all directions. In Summers, 3,494 parcels will have their views affected by the pipeline. Homebuyers, realtors, and commercial property owners know the importance of the proverbial “million-dollar view.” While the pipeline might not erase quite that much value from a given property, it is likely a property with a view that suddenly includes a pipeline right-of-way where there was once an unbroken view of mountain ridges, woodlands or farm fields will experience a real loss in value. David Hurt, Franklin County, Virginia’s former County Supervisor and a real estate agent specializing in rural land, found “that mountain views are a major selling point. With the proposed route...being visible for miles around, it will make many properties within view of the mountain less desirable with diminished market value” (Hurt 2015). This lost value would be reflected in the loss of aesthetic value included with other effects on ecosystem services described in the next section.

Leaving aside the value lost in the viewshed and counting only the impacts in the right-of-way and the evacuation zone, the MVP could cause between \$1.8 and \$2.3 million in lost property value in Summers. Applying the median property tax rate for the county, this one-time loss in property value translates into an annual loss of property tax revenue between \$6,200 and \$7,900.

These estimates of lost property value and tax revenue are conservative for five reasons. First, and as explained in footnote seven,<sup>7</sup> estimated impacts on sale prices for properties in the ROW do not take into account the fact that more than three out of five prospective buyers would not buy such properties at any price. Second, our estimates treat properties in the (higher risk) high consequence areas as if they are affected only to the same degree that properties in the evacuation zone would be affected. Third, they do not take into account the disproportionate effect the MVP would have on the assessed value of developable, but currently unimproved, parcels for which the MVP could impede subdivision. Depending on where and how the ROW crosses these properties, it is likely that some will lose their potential for future development and the assessed value and associated property tax revenue will fall. Fourth, we have not quantified the effect of additional surface infrastructure, such as access roads, that would take up land outside the right-of-way. Fifth and finally, the estimated impacts on tax revenue do not reflect lost value for properties with pipeline-damaged views. If the MVP is permitted, a property-by-property reappraisal of all parcels affected in any of these ways and in all areas—along the ROW, in the evacuation zone, and throughout the viewshed—should be undertaken to determine the full impact on landowners and local tax revenues.

The construction and presence of the MVP will alter the flow of natural benefits people receive from well-functioning, healthy ecosystems. Known as “ecosystem services” and defined as the benefits people obtain from ecosystems, these natural benefits include services such as clean water for drinking and for industrial processes, food grown on cropland, raw materials, and the aesthetic value of beautiful views from residential and commercial properties as well as from areas used for recreation.

Ecosystems also protect people and property from extreme events like floods and wildfire, regulate local and global climate, clean the air, support food production through natural pest control and pollination, provide wildlife to hunt, fish to catch, and spaces for other forms of recreation.

Because these ecosystem benefits are benefits to people, they convey economic value. To the extent the MVP would reduce the flow of these benefits, the reduction must be counted among the MVP’s economic costs. Beyond this economic rationale, there is a growing legal and regulatory imperative to consider ecosystem services effects, particularly where federal land, such as the Jefferson National Forest, and federal actions are involved (USDA Forest Service 2012; Donovan, Goldfuss, and Holdren 2015).

To estimate these costs, we use the well-established “benefit transfer method” in which different land uses are associated with different rates of delivery of various ecosystem services. For example, each acre of forest produces a certain number of dollars’ worth of aesthetic value, recreational opportunity, water, and water flow regulation, among others each year. Similarly, cropland produces food and other natural benefits at its

particular rate. Urban open space makes its own contribution to aesthetics and other values. These rates of delivery are transferred to the study region from previous research on areas that are reasonably similar to the study region.

Acreage converted from a more productive to a less productive land use results in lower ecosystem service values. During construction, the MVP would convert all acreage in the 125-foot-wide construction zone to barren land, which has no ecosystem service value. After construction, we assume acreage in the construction zone but outside the 50-foot-wide ROW would return to its previous land use/land cover.



Pence Springs in winter (Photo Credit Jessie Reeder)

Additional land would be converted to barren or urban land (both of which have relatively low ecosystem service productivity) for use as permanent access roads and other pipeline-related infrastructure. Within the ROW, we assume previous forestland would return to shrub/scrub and that cropland would return as pasture/forage.<sup>8</sup> All other acreage, including those beginning as shrub/scrub or pasture/forage is assumed to return to its pre-pipeline use or cover type.

The other driver of change in ecosystem service value is the difference in per-acre productivity for land that returns to its previous use after construction. For example, post-construction differences in soil structure, compaction, and other factors may render pasture/forage less valuable for food production, for water purification, and for producing other benefits once a pipeline runs through it. Similarly, urban open space might become less suitable as a place for children to play or people to relax once it becomes open space occupied by a high-pressure gas transmission line. While we are aware of one proposed study focused on agricultural productivity,<sup>9</sup> there are not yet data indicating how severe the changes would be. Our estimates assume, therefore, that acreage in the ROW is as productive after construction as any other acreage in the same land use/land cover.

In Summers, ecosystem service value lost in the temporary conversion from forest, cropland, urban open space, and other areas to a 125-foot-wide construction zone ranges from \$1.5 to \$5.3 million in each of the two years of construction.<sup>10</sup> Ecosystem service value lost in the ROW each and every year thereafter is estimated to be between \$495,900 and \$1.8 million. Access roads and other new surface infrastructure, which would take up a total of 6.1 acres in Summers County, would result in an additional annual loss of \$104,000. Diminished aesthetic value represents the largest share of these losses. Disruptions to water supplies and loss of protection from extreme events make up much of the remainder.

These estimates are conservative for several reasons. First, the ROW could serve as a pathway for invasive species or wildfire to penetrate areas of interior forest habitat more quickly, thereby reducing the natural productivity of an even larger area. During construction, the construction corridor itself could be a source

---

<sup>8</sup> We recognize that some land in the ROW could technically be used for crop production again after construction. However, restrictions on the weight of machinery that can cross the pipeline itself may make such production uneconomic. Moreover, the presence of the pipeline and restrictions on activities that can occur within the ROW can have spillover effects on the crop fields through which the ROW passes. In the similar context of the Atlantic Coast Pipeline, Augusta County farmer Harry Crosby has testified, the ROW would take an entire field of 30-40 acres out of crop production (Crosby 2015a; Crosby 2015b). Our assumption that ONLY the acreage in the ROW itself would be lost to crop production is therefore a conservative one.

<sup>9</sup> Once funded, this Ohio State study would use field-level data to examine the anecdotal evidence gathered over the course of decades that fields with pipelines have lower crop and forage yields than those without (Culman 2015).

<sup>10</sup> While construction at any given point along the pipeline would not take two years, we assume that it would be two years before the construction zone is fully revegetated and functioning as the land use or ecosystem type in which it will stay during operation of the pipeline.

## SUMMERS COUNTY AND THE MOUNTAIN VALLEY PIPELINE

of air and water pollution that may over-burden the ability of surrounding areas to absorb sediment, particulates, and other pollutants. If that is the case, the ecosystem service value of the construction corridor during construction would not be zero, it would be negative.

Finally, these estimates reflect only changes in natural benefits that occur due to changes on the surface of the land. Particularly because the proposed pipeline would traverse areas of karst topography, there is concern subsurface hydrology could be affected during construction and throughout the lifetime of the pipeline (Pyles 2015). Blasting and other activities during construction could alter existing underground waterways and disrupt water supply. There is also a risk that sediment and other contaminants could reach groundwater supplies if sinkholes form near the pipeline during construction or afterwards. Many Summers County residents rely on surface water, and, like the concerns for groundwater, the many stream and river crossings in the county raise concerns about the integrity of future drinking water supply and quality. Disruptions in water supply would be a further loss of ecosystem service value and, for the homeowners or municipalities affected, would entail major expenditures to correct. For example, officials in Augusta County, Virginia, a county on the proposed Atlantic Coast Pipeline's route, estimate it would cost at least \$2.1 million to establish a new municipal well (Hoover 2015, 201).

### Economic Development Opportunity

The Summers County Comprehensive Plan's overarching goal and objective identified by the community "is the need to promote growth that is economically sound, environmentally friendly, and consistent with community livability and enhancement of quality of life" (Summers County 2016). The MVP would undermine progress toward this goal if the loss of scenic and recreational amenities, the perception and the reality of physical danger, and environmental and property damage were to discourage people from visiting, relocating to, or staying in Summers. Workers, businesses, and retirees who might

### The Revitalization of Hinton

Ken Allman, founder of Practice Link, a nationally recognized internet-based business, and native resident of Summers County, has moved his businesses headquarters from St. Louis back to Hinton.

The relocation of Practice Link to Hinton has spurred a revitalization of Hinton's historic district. From the Guesthouse Inn on Courthouse Square, the Market on Courthouse Square, a sandwich shop, an outdoor shop and gallery, and the McCreery Conference & Event Center, each major project complements the next and is bringing jobs and the community back together.

Hinton's revitalization has drawn the attention of West Virginia's elected leaders. Senator Shelley Moore Capito commented on the revitalization saying "Hinton proves that West Virginia's small, rural communities can experience economic revitalization through entrepreneurship and technology."

otherwise choose to locate along the MVP's proposed route will instead pick locations retaining their rural character, productive and healthy landscapes, and the promise for a higher quality of life. Research regarding the Atlantic Coast Pipeline (ACP), a similar 42-inch interstate natural gas pipeline being proposed to cross West Virginia and Virginia along a more northerly route, validates this concern (Phillips, Bottorff, and Wang 2016). With the possibility of the ACP looming, business plans in the region have stalled and the real estate market has slowed (Smith 2015a; Smith 2015b; Adler 2015).

Summers residents are also concerned the MVP could have broad, negative impacts on the economy. More specifically, residents from counties the MVP would cross that have submitted comments to FERC are concerned about potential environmental impacts, public safety, property values, and historical and cultural resources (Pipeline Information Network 2015).

The fears associated with the economic impacts are consistent with research results from this region and around the country demonstrating that quality of life is often of primary importance when people choose places to visit, live, or do business. As Niemi and Whitelaw (1999, 54) state, "as in the rest of the Nation, natural-resource amenities exert an influence on the location, structure, and rate of economic growth in the southern Appalachians. This influence occurs through the so-called people-first-then-jobs mechanism, in which households move to (or stay in) an area because they want to live there, thereby triggering the development of businesses seeking to take advantage of the households' labor supply and consumptive demand." They note that decisions affecting the supply of amenities "have ripple effects throughout local and regional economies."

Along similar lines, Johnson and Rasker (1995) found that quality of life is important to business owners deciding where to locate a new facility or enterprise and whether to stay in a location already chosen. This is not surprising. Business owners value safety, scenery, recreational opportunities, and quality of life factors as much as residents, vacationers, and retirees.

Although it is difficult to predict exactly how large an effect the MVP would have on decisions about visiting, locating to, or staying in Summers, based on information provided by business owners to FERC and as part of this research, we can consider reasonable scenarios for how the MVP might affect key portions of the county's overall economy.

Summers residents and residents from all over the region affected by the MVP believe the pipeline will harm the travel and tourism industry. As mentioned earlier, Orus Ashby Berkley, a Summers County businessman, predicts the pipeline will "completely destroy the use, purpose, business operation, well, commercial septic system, two rental houses, and public campground" on his property (Berkley 2015). In nearby Monroe County, the MVP's proposed route is grinding Birdsong Farm, an organic apiary's, plans to expand and create a U-pick

strawberry farm to a halt (Chlepas and Chlepas 2015). The owners of the apiary canceled their high tunnel grant and estimate a long-term loss in revenue to the county of as high as half a million dollars.

While more systematic research could provide refined estimates on the impact of natural gas transmission pipelines on recreation and tourism spending, one plausible scenario is that the impact is at least as high as the minimum of business owners' reported expectations. For example, if the MVP were to cause a 10% drop in recreation and tourism spending from the 2014 baseline, the MVP could mean \$1.9 million less in travel expenditures each year. Those missing revenues would otherwise support roughly \$500,000 in payroll, \$24,500 in local tax revenue, \$125,200 in state tax revenue, and 31 jobs in the county's recreation and tourism industry each year.<sup>11</sup> In the short run, these changes multiply through the broader economy as recreation and tourism businesses buy less from local suppliers and fewer employees spend their paychecks in the local economy.

Along similar lines, another important economic engine affected by the MVP is retirement income. In county-level statistics from the US Department of Commerce, retirement income shows up in investment income and as age-related transfer payments, including Social Security and Medicare payments. In Summers, investment income increased by 0.2% per year from 2000 through 2014, and age-related transfer payments grew by 3.0% per year. During roughly the same time period (through 2013), the number of residents age 65 and older grew by 6.7% (0.5% per year), and this age cohort now represents 20.1% of the total population.<sup>1</sup>

Although it is difficult to precisely quantify the effect of the MVP on retirement income, given the strong expression of concern from

### **MVP threatens retirees' dreams, financial assets**

For Brian and Elizabeth Kirk, the one thing they absolutely wanted was to move to the mountains when they retired. After searching for properties from northern Georgia to upstate New York, they decided on relocating to Summers County. Spending the rest of their savings and completing much of the work to build the house themselves, their home is something the two of them cherish, and a place they want to spend the rest of their lives.

The MVP would destroy their conception of a peaceful retirement in the mountains. The construction would cross the headwaters of their creek numerous times, potentially contaminate the well fed by that water, and disrupt the aquatic wildlife dependent on the health of the creek.

-Brian and Elizabeth Kirk,  
Summers County Residents

<sup>11</sup> Raw data on travel expenditures is from Dean Runyan Associates (2015). This reduction in economic activity would be in addition to the lost recreation benefits (the value to the visitors themselves over and above their expenditures on recreational activity) that are included with ecosystem service costs.



Canoeists on the Greenbrier River (Photo Credit John Farrell)

residents about changes in quality of life, safety, and other factors influencing retirees' location decisions, it is important to consider that some change is likely. Here, we consider what just a 10% slowing of the rate of increase might entail. For Summers, this scenario entails an annual decrease in investment and age-related transfer payments of approximately \$226,200. That loss would ripple through the economy as the missing income is not spent on groceries, health care, and other services, such as restaurant meals, etc.

The same phenomenon also applies to people starting new businesses or moving existing businesses to Summers. This may be particularly true for sole proprietorships and other small businesses who are most able to choose where to locate. As noted, sole proprietors account for a large and growing share of Summers jobs. If proprietors' enthusiasm for starting businesses in the county were dampened to the same degree as retirees' enthusiasm for moving there, the effect would be, based on average proprietor's income in recent years, about \$10,000 less in added labor earnings each year. Such changes may seem small, but keep in mind that it is a conservative estimate. Moreover, in a small community already experiencing slow declines in employment, the preventable loss of sustainable job opportunities is reason for concern.

For "bottom line" reasons (e.g., cost of insurance) or due to the owners' own personal concerns, other businesses besides sole proprietorships might choose locations where the pipeline is not an issue. If so, further opportunities for local job and income growth are missed.

These are simple scenarios and the actual magnitude of the impacts will not be known unless the pipeline is built. Even so, because the pipeline is promoted by supporters as an economic stimulant, bringing jobs and other benefits to the region, it is important to consider the potential for loss.

## Conclusion

The full costs of the proposed Mountain Valley Pipeline in Summers County are wide-ranging. They include one-time costs like reductions in property value and lost ecosystem services during pipeline construction,

which we estimate to be between \$4.8 and \$12.9 million. Also, there are ongoing costs like lost property tax revenue, diminished ecosystem service value, and dampened economic growth that recur year after year for the life of the pipeline. These annual costs would range from \$2.4 to \$4.4 million per year. Most of these costs would be borne by Summers County residents, businesses, and institutions. By contrast, the MVP's one local benefit is an estimated average tax payment of \$890,000 per year during construction and operation (Ditzel, Fisher, and Chakrabarti 2015). Other MVP-promoted benefits, such as jobs from the MVP's construction and operation and those stemming from lower energy costs, would accrue primarily in other places (Ditzel, Fisher, and Chakrabarti 2015).<sup>12</sup>

The decision to approve or to not approve the MVP does not hinge on a simple comparison of estimated benefits and estimated costs. The scope and magnitude of the costs outlined here, however, reflect and are an important component of the full environmental effects that must be considered in making that decision. Impacts on human well-being, including those that can be expressed in a monetary value must be taken into account by the Federal Energy Regulatory Commission and others weighing the societal value of the Mountain Valley Pipeline.

## Works Cited

- Adams, Duncan. 2016. "A Question of Effect: Pipelines vs. Mortgages, Property Values, Insurance." Newspaper. [www.roanoke.com](http://www.roanoke.com/business/news/a-question-of-effect-pipelines-vs-mortgages-property-values-insurance/article_c3750fd9-1712-5b3e-a12d-b2d2486f043b.html). April 3. [http://www.roanoke.com/business/news/a-question-of-effect-pipelines-vs-mortgages-property-values-insurance/article\\_c3750fd9-1712-5b3e-a12d-b2d2486f043b.html](http://www.roanoke.com/business/news/a-question-of-effect-pipelines-vs-mortgages-property-values-insurance/article_c3750fd9-1712-5b3e-a12d-b2d2486f043b.html).
- Adler, Kristina. 2015. "Adler, Kristina, Comment, Comment, FERC DOCKET NO.: PF15-6-000,20151021-5116(30971095).pdf."
- Berkley, Orus. 2015. "Berkley Comment, FERC DOCKET NO.: CP16-10-000, 20151230-5005(31110997)."
- Boxall, Peter, Wing Chan, and Melville McMillan. 2005. "The Impact of Oil and Natural Gas Facilities on Rural Residential Property Values: A Spatial Hedonic Analysis." *Resource and Energy Economics* 27 (2005): 248–69.
- Chlepas, Patti, and Constantine Chlepas. 2015. "Birdsong Farm, LLC," December 13.
- Crosby, Harry. 2015a. "How the Pipeline Would Affect My Farm." *The News Leader*, May 26. <http://www.newsleader.com/story/opinion/columnists/2015/05/23/pipeline-affect-farm/27838987/>.
- . 2015b. Personal Communication.
- Culman, Steve. 2015. Personal Communication.
- Dean Runyan Associates. 2015. "West Virginia Travel Impacts 2000-2014." <http://gotowv.com/wp-content/uploads/2015/09/2014-Economic-Impact-Final.pdf>.
- Ditzel, Ken, Rob Fisher, and Kaustuv Chakrabarti. 2015. "Economic Benefits of the Mountain Valley Pipeline Project in West Virginia." McLean, Virginia: FTI Consulting.
- Donovan, Shaun, Christina Goldfuss, and John Holdren. 2015. "Incorporating Natural Infrastructure and Ecosystem Services in Federal Decision-Making." Executive Office of the President, OMB & CEQ. <https://www.whitehouse.gov/blog/2015/10/07/incorporating-natural-infrastructure-and-ecosystem-services-federal-decision-making>.
- Headwaters Economics. 2015. *Economic Profile System*. <http://headwaterseconomics.org/tools/eps-hdt>.
- Hoover, Jennifer. 2015. "Total Cost for a New Municipal Water Supply Well," April 16.
- Hurt, David. 2015. "Former Franklin County Supervisor: Comment, FERC DOCKET NO.: PF15-3-000, 20150120-5088(30073545)."

---

<sup>12</sup> For a number of reasons the MVP-sponsored studies present benefit estimates that may be inflated. See Phillips (2015) for a review of those studies' methods, assumptions, and conclusions.



- Jarell, Mark. 2015. "Mark Jarrell Comment, FERC DOCKET NO.: PF15-3-000, 20151015-0006(30956503)." <https://www.facebook.com/notes/summers-county-residents-against-the-pipeline/letter-to-gov-tomblin-by-robert-jarrell/838766902910168>.
- Johnson, Jerry D., and Raymond Rasker. 1995. "The Role of Economic and Quality of Life Values in Rural Business Location." *Journal of Rural Studies* 11 (4): 405–16. doi:10.1016/0743-0167(95)00029-1.
- Kersey, Lori. 2016. "In Hinton, WV, 'everyone's Trying to Make a Difference'." *Charleston Gazette-Mail*. Accessed April 12. <http://www.wvgazettemail.com/news/20160330/in-hinton-wv-everyones-trying-to-make-a-difference>.
- Kielisch, Kurt. 2015. "Study on the Impact of Natural Gas Transmission Pipelines." Forensic Appraisal Group, Ltd.
- Kirk, Brian. 2016. "Kirk Retirees."
- Laurrell, Patricia B. 2015. "Laurrell Comment, FERC DOCKET NO.: PF15-3-000, 20150604-0046(30634606)."
- Leech, Irene Ellis. 2015. "Mt. Rush Farm Property: Comment, FERC DOCKET NO.: PF15-6-000,20150326-0033(30429539)."
- Milam, Dwayne, and Mary Ann Milam. 2015. "Milam Farm: Comment, FERC DOCKET NO.: PF15-3-000, 20150428-0057(30541748)." [http://elibrary.ferc.gov/idmws/file\\_list.asp?accession\\_num=20150428-0057](http://elibrary.ferc.gov/idmws/file_list.asp?accession_num=20150428-0057).
- Monroe, William, and Cheryl Monroe. 2015. "Monroe and Monroe Comment, FERC DOCKET NO.: PF15-6-000,20150428-5044(30531423)."
- Mountain Valley Pipeline. 2016. "Economic Benefits, Mountain Valley Pipeline Project." Accessed January 18. <http://mountainvalleypipeline.info/economic-benefits/>.
- New River Gateway. 2015. "What's The Big Deal With Summers County?" *Visit Southern West Virginia*. <http://bit.ly/1BtAFC2>.
- Niemi, Ernest G., and W. Ed Whitelaw. 1999. "Assessing Economic Tradeoffs in Forest Management." General Technical Report PNW-GTR-403. USDA Forest Service, Pacific Northwest Research Station. [http://conservationfinance.org/guide/guide/images/18\\_niemi.pdf](http://conservationfinance.org/guide/guide/images/18_niemi.pdf).
- Perrine, Alinda. 2015. "West Virginia Realtor Quote."
- Phillips, Spencer. 2015. "Reason for Caution: Mountain Valley Pipeline Economic Studies Overestimate Benefits, Downplay Costs." Key-Log Economics. [keylogeconomics.com](http://keylogeconomics.com).
- Phillips, Spencer, Cara Bottorff, and Sonia Wang. 2016. "Economic Costs of the Atlantic Coast Pipeline: Effects on Property Value, Ecosystem Services, and Economic Development in Western and Central Virginia." [http://keylogeconomics.com/wp1/wp-content/uploads/2016/03/EconomicCostsOfTheACP\\_TechnicalReport\\_REV201603.pdf](http://keylogeconomics.com/wp1/wp-content/uploads/2016/03/EconomicCostsOfTheACP_TechnicalReport_REV201603.pdf).
- Pipeline Information Network. 2015. "FERC Comment Digest: January 1, [2013] - January 31, 2015 & February 1, 2015 - March 31, 2015." Blacksburg, VA: Pipeline Information Network. <http://www.pipelinenetwork.org>.
- Pyles, Tracy. 2015. "Augusta County Service Authority: Comment, FERC DOCKET NO.: PF15-6-000,20150428-5288(30535726)." Augusta County Service Authority.
- Rasker, Ray, and D Glick. 1994. "The Footloose Entrepreneurs: Pioneers of the New West?" *Illahee* 10 (Spring): 34–43.
- Roston, Margaret. 2015. "Margaret Roston Comment, FERC DOCKET NO.: PF15-3-000, 20150505-5053(30552694)."
- Smith, Rachael. 2015a. "Real-Estate Agents: Proposed Pipeline Already Affecting Sales." *NewsAdvance.com*, May 18. [http://www.newsadvance.com/work\\_it\\_lyncburg/news/real-estate-agents-proposed-pipeline-already-affecting-sales/article\\_486d8e38-fcf5-11e4-b10b-5bfa67606fa1.html](http://www.newsadvance.com/work_it_lyncburg/news/real-estate-agents-proposed-pipeline-already-affecting-sales/article_486d8e38-fcf5-11e4-b10b-5bfa67606fa1.html).
- . 2015b. "Pipeline Threatens Plan for \$35 Million Nellysford Resort." *Nelson County Times*, July 8. [http://www.newsadvance.com/nelson\\_county\\_times/news/pipeline-threatens-plans-for-million-nellysford-resort/article\\_3527f4aa-259d-11e5-a135-775e0a418125.html](http://www.newsadvance.com/nelson_county_times/news/pipeline-threatens-plans-for-million-nellysford-resort/article_3527f4aa-259d-11e5-a135-775e0a418125.html).
- Summers County. 2016. "Summers County Comprehensive Plan Draft Proposed for Approval." <http://summerscountywv.org/uploads/New%20SumCo%202020%20Plan.pdf>.
- US Bureau of Economic Analysis. 2015. "Regional Economic Accounts: Local Area Personal Income & Employment." Data. *US Department of Commerce Bureau of Economic Analysis*. <http://www.bea.gov/regional/index.htm>.
- US Census Bureau. 2015. "American Community Survey." <https://www.census.gov/programs-surveys/acs/>.
- USDA Forest Service. 2012. "National Forest System Land Management Planning: Final Rule and Record of Decision." *Federal Register* 77 (68): 21162–276.
- Williams, Stephen C. 2015. "Stephen C. Williams Comment, FERC DOCKET NO.: PF15-6-000,20150427-5108(30526982)."

## Photo Credits

- Anderson, Patsy L. *New River in Autumn*. Photo, n.d. Used by permission.
- Farrell, John. *Canoeists on the Greenbrier River*. Photo, n.d. Used by permission.
- Reeder, Jessie. *Pence Springs*. Photo, n.d. Used by permission.

## Author's Note

For a full explanation of the concepts, methods, data, and assumptions behind the estimates in this summary, as well as estimates for the eight-county region comprising Greenbrier, Summers, and Monroe County in West Virginia, and Giles, Craig, Montgomery, Roanoke, and Franklin Counties in Virginia, please see the full technical report, "Economic Costs of the Mountain Valley Pipeline to Property Value, Ecosystem Services, and Economic Development in Virginia and West Virginia," available at both websites listed below. We are grateful for the assistance of POWHR coalition members and others in identifying local information sources and reviewing a draft of the report. Key-Log Economics however, remains solely responsible for the content of this report, the underlying research methods, and the conclusions drawn. We have used the best available data and employed appropriate and feasible estimation methods but nevertheless make no claim regarding the extent to which the magnitude of these ex ante estimates will match actual economic effects if and when the MVP is built.

**POWHR**

*Protect Our Water, Heritage, Rights is an interstate coalition working together to protect the water, local ecology, heritage, land rights, and human rights of individuals, communities, and regions from harms caused by the expansion of fossil fuel infrastructure. [powhr.org](http://powhr.org)*



*Key-Log Economics conducts ecological-economic research to help people and institutions understand and improve economic relationships between human and natural communities.*

*[keylogeconomics.com](http://keylogeconomics.com)*