Kimberly D. Bose, Secretary
Federal Energy Regulatory Commission
888 First Street NE
Washington, DC 20426

Re: Comments on the draft environmental impact statement for the Atlantic Coast Pipeline

Docket Number CP 15-554-000, CP15-554-001

April 4, 2017

Ms. Bose:

Please find my comments on the draft environmental impact statement for the Atlantic Coast Pipeline. I find this document to be unsatisfactory. The document needs to be retracted and rewritten.

Please refer to my earlier comments for the Atlantic Coast Pipeline that are on record. These include written comments and photo documentations of 3/6/16, 3/31/16, 4/22/16, 5/23/16, 5/30/16, 6/1/16, 8/7/16, 10/31/16, 11/14/16, 12/5/16, and 12/6/16 and scoping meeting comments of 5/20/17, 5/21/17, 2/23/17, and 2/28/17. I have not seen evidence in the DEIS that my earlier comments were reviewed by FERC. Therefore, send the names of the FERC staff member who reviewed each of these documents, and the FERC staff review notes or comments from those reviews. Email them to me at wflimpert@gmail.com, or send them to:

William F. Limpert
4102B Garfield Road
Smithsburg, MD 21783

In these current comments I refer to “the ACP” in all references to the Atlantic Coast Pipeline, and Dominion entities.

My comments include the following topics:

Retract and Rewrite the DEIS
DEIS Incorrectly Dismisses Alternatives
DEIS Incorrectly Dismisses Climate Change
DEIS Ignores Old Growth Forests On Private Land
DEIS Incorrectly Dismisses Negative Impacts
Eminent Domain Without Public Need
Public Safety and Pipeline Integrity
The ACP Cannot Be Constructed On Miracle Ridge
Sinking Streams Adjacent To Proposed Pipeline On Limpert Property
The Pipeline Cannot Be Constructed On The Limpert Property
Detailed Site Specific Grading Plans Must Be Submitted And Approved
Property Values
Visual Impacts
Excavation Limiting Factors
Socioeconomic Concerns

The ACP Should Not Be Constructed in Karst Terrain
Demand Letter Regarding Springs And Wells In Karst Terrain
Geohazards
Lack of Adequate Pollution Controls
Undercounting of Springs in Proximity To The Pipeline
General Comments
Conclusion and Recommendations

Retract and Rewrite The DEIS

FERC must retract the Draft Environmental Impact Statement (DEIS) for the Atlantic Coast Pipeline. FERC issued the document without sufficient information. Much of the information that is missing is vital to accurately address the very large impacts from this project to public safety, including emergency rescue operations, public health, private drinking water springs and wells, water pollution, alternate routes, collocation opportunities, climate change, property values, scenic, historic, recreational, and wildlife values, and other issues.

Further, the public benefit versus the negative impacts for the ACP have not been properly assessed due to FERC's failure to take into account other available pipelines, alternative renewable energy sources, and simple conservation which could be utilized for the same purpose as the ACP, without taking thousands of properties through eminent domain, putting tens of thousands of others in harm's way in the blast zone and the evacuation zone of the ACP. FERC must write another more objective, accurate, and up to date DEIS where all information is accounted for and properly analyzed.

The ACP and FERC have had more than sufficient time to obtain this information, but both have failed to do so. This project was announced in the spring of 2014, nearly 3 years ago. ACP's proposed construction schedule or costs incurred to this point should not be considered in this matter. First things first, and the first thing is to have the necessary information to write a valid and reliable draft EIS.

The ACP has failed to complete surveys and accurately report on geohazard risks to the pipeline, karst risks to the pipeline, biological risks from the pipeline, including any surveys whatsoever regarding the threat of invasive species. The ACP has even gone so far as to blame landowners for their failure to complete these surveys, stating that landowners have not given permission to survey. This is no excuse. The ACP does not need landowner permission to survey. The ACP's failure to complete these surveys is theirs alone.ACP's failure to provide the needed information for the draft EIS may not just be due to incompetence. It could very well be part of ACP's manipulation of the system to delay information until after the DEIS is issued to allow them "through the gate", and on their way to full approval.

FERC has failed to require the ACP to provide and fully explain information that is vital to a full assessment of the impacts of this pipeline, including information on property values, scenic values, public safety through emergency rescue, alternate routes, colocation opportunities, existing wells and springs in proximity to the pipeline, climate change, alternate energy sources, including renewable energy systems, and an assessment of existing underutilized pipelines that could fill the same need as the ACP.

The United States Forest Service (USFS) has recently stated that they have not had sufficient

time to complete their legal requirements for a thorough review of the project, and once again, much of this can be traced back to the ACP's failure to supply the information that the USFS has requested. On at least 3 occasions the USFS has requested that the ACP provide them with basic construction grading sheets for steep slopes to assess the potential for soil loss and landslides. On each occasion the ACP has failed to do so. Following this failure, the ACP testified to the Senate Energy Committee that the USFS was slowing the project down. I strongly believe that the ACP does not want to release these plan sheets because they would show that the project is unsafe.

Additionally, the Virginia Outdoors Foundation has not ruled on the ACP's request to strip private property owners of conservation easements that they have purchased for up to eleven parcels of land. How can a DEIS be written without this information?

Citizens have been required to consider, comprehend, and comment on ever changing plans and information for this project. This continues. Since the DEIS was written very large amounts of new information have been submitted by the applicant. It is unfair to concerned and impacted citizens to be forced to comment on incomplete information. It is a mockery of FERC's so called public participation process, and I believe that it is illegal.

It is readily apparent that this DEIS was not written in an impartial manner. FERC selectively uses information that is unsubstantiated and not scientifically valid to bolster its case for project approval, while at the same time dismissing solid, valid, and reliable evidence showing overwhelming negative impacts. Rather than regulate the industry FERC has facilitated the industry. Rather than support the public comments, FERC has thwarted the public comments. As the early computer statement went…garbage in..garbage out. FERC's failure to fairly assess the overwhelming negative impacts of the ACP in this DEIS puts countless numbers of citizens at risk, and is a gross violation of the public trust.

Finally, the DEIS directs the public to mail comments to:

Nataniel J. Davis Sr. Deputy Secretary
Federal Energy Regulatory Commission
888 First Steet NE, Room 1A
Washington DC, 20426
Docket Number CP-14-554-001

This is an incorrect Docket Number. Docket Number CP-14-554-001 is for the Sabal Trail pipeline in Florida, not the Atlantic Coast Pipeline. Comments submitted incorrectly under this Docket Number may not have been reviewed for the Atlantic Coast Pipeline. FERC must issue a public statement regarding this error, and allow anyone who has submitted comments under this mistaken Docket Number to resubmit their comments.

The DEIS must be retracted and rewritten.

DEIS Incorrectly Dismisses Alternatives

FERC is required by law to consider alternatives to the Atlantic Coast Pipeline, but FERC has not come close to adequately fulfilling that legal requirement. Instead, FERC uses incomplete analysis to dismiss alternatives that are far superior to the ACP, and the multitude of negative

impacts it would bring. FERC must obey the law by realistically comparing practical alternatives, including the no action alternative, other energy sources, other available pipelines, and other routes.

The DEIS states that alternative energy sources, energy conservation and efficiency are not within the scope of this analysis because the purpose of the ACP is to transport natural gas. FERC's scope of analysis should include all reasonable alternatives to the ACP, but FERC has chosen not to follow the law and consider those alternatives. By doing so FERC ignores much preferable alternatives that would provide the same or greater benefits, at lower cost to ratepayers, and with much less negative impacts than the ACP. FERC does not benefit the public whatsoever with such purposely chosen and myopic decision making. It is obvious to me and many others that rather than regulate the energy industry, FERC facilitates it, while at the same time reducing the public's energy choices and cost, and increasing the negative impacts to citizens.

The DEIS states that no action alternative would not be acceptable because natural gas consumption grew by 12% and 49% in VA and NC between 2010 and 2014, and between 2011 and 2015 gas fired electricity generation increased by 71% and 199% respectively. This may or may not accurately reflect current natural gas trends, but it certainly does not prove that natural gas is preferred by customers in those markets. In fact, and as I have previously stated, energy use in VA and NC has actually decreased in the past decade and according to the EIA, it is expected to increase only 0.4% in the next several decades, and actually decrease on a per capita basis. The no action alternative along with energy conservation would certainly be the better alternative to the 600 mile ACP which would take private property, and has a long list of negative impacts to citizens near and far from the pipeline. Those customers in the targeted market of the ACP may very well prefer energy conservation, or other energy sources, including renewable energy sources.
I call on FERC to commission an independent survey of those customers to determine their energy choices in this matter.

FERC's statement that lack of a new pipeline could result in energy shortages, deprivation, and price increases is incorrect. Energy conservation alone would provide enough energy for the stated market of the ACP, and additional supplemental energy could be provided with other less intrusive and cleaner energy sources. The amount of energy that the ACP would bring is much more than is needed, and the negative impacts it would bring are much too high.

The DEIS states that natural gas is cleaner than other fossil fuels, and air pollution could increase if the ACP is not built. This is also incorrect. As numerous studies have shown, and as I have stated in earlier comments, natural gas systems, due to methane loss, contribute roughly the same amount of greenhouse gas emissions as existing coal fired power plants. If the ACP is built air pollution would continue to increase as greenhouse gases continue to accumulate in our atmosphere. Furthermore, the DEIS refuses to compare the ACP with renewable energy systems regarding impacts to air pollution. Why does the DEIS compare the ACP to other fossil fuel systems but refuse to compare it to renewable energy systems? Why the double standard? Renewable energy systems contribute much less air pollution than the ACP would. In fact, the ACP would lock in decades of unhealthy air pollution, and greenhouse gas emissions, including ever increasing concentrations of carbon dioxide and methane.

The DEIS incorrectly rejects the ACP/MVP merged systems alternative, a single 42 inch or 48 inch pipe that would carry 3.44Bcf/d. In the rejection FERC relies on information supplied by

the applicant rather than independent studies, and even uses an outdated 1999 industry study as well. This is not objective information gathering. The excuses for the rejection are that the pipe would weigh more, the walls would need to be thicker, there would be reduced operational flexibility, and possible future expansion, larger construction equipment would be required, several compressor stations would need to be added, increased workspace would be required, increased construction complexity would be added, reduction of the elasticity of the pipeline would occur, increased soil displacement would occur, and delivery of the 3.44Bcf/d would be delayed due to significant time needed for planning and design. As I stated these excuses were supplied by the applicant, and the industry, and were not determined by FERC using independent studies, or FERC's own expertise. I am particularly skeptical of the statement regarding additional compressor stations. These applicant and industry statements are not reliable information, and should not be used in FERC's decision making process. FERC should compare the number of compressor stations for the ACP and the MVP separately to the number of compressor stations if they were merged into one pipe, and compare the other issues stated above as well.

The significant benefits of this merger are summarily dismissed. They include increased collocation with existing utility rights of way, avoidance of the GWNF and MNF, reduced crossings of the BRP and ANST, reduced number of access roads and contractor yards, and less construction in karst. Other obvious benefits that are outstanding, but not mentioned include less private property taken, fewer geohazard threats, less deforestation, and less total land disturbance.

FERC needs to reconsider this alternative using objective information.

The DEIS states that major route alternatives are typically only recommended if they have significant environmental advantages, but does not state how much of an advantage the alternate route would need to be recommended. FERC needs to quantify the environmental advantages to make a reasonable and understandable comparison. Furthermore, this criteria completely leaves out the advantages that alternative routes would have regarding reduced impacts to private property owners, and pipeline safety issues.

The DEIS incorrectly dismisses collocation, as I have stated in my earlier comments, and passively accepts ACP's simplistic explanation for not including more collocation. Further, the DEIS does not mention the collocation route that I proposed in earlier comments that follows an existing and wide Dominion electric transmission line right of way north of the current route which would, among many other advantages, move the ACP out of the steep slopes and karst terrain of Bath County. This alternative needs to be reviewed by FERC. Collocation rates on large gas pipeline projects are typically in the 40% to 50% range, much higher than the proposed ACP. This project could be collocated much more than it is, but I believe that the ACP has decided that they would rather take private property, and FERC is content allow them do that.

The DEIS states under 3.3.3 that collocating with a highway is permissible only if the utility is in the public interest, would not interfere with traffic, and would not interfere with future expansion. If FERC determines that the project is in the public interest (I am convinced that it is not, but FERC most assuredly will determine that it is), then this is a viable and much preferred alternative. The ACP-1 and ACP-2 could be constructed in the median of I-79, I-64, and I-95 without interfering with traffic, and without harming future expansion. Commercial expansion will not occur in the median of the highway, and expansion of the travel portion of

the highway will not as well. In fact, with the advent of self driving cars in the near future, which will be able to travel very close together, highways will not need to increase in size, even while accommodating more vehicles.

This alternative would not take property from private property owners. FERC states that it would add more steep slopes than the existing proposed route, but this is incorrect, because the grade or slope of the highway has already been established, and those grades rarely exceed even 10%, much less than the 60% slopes that would be crossed in Little Valley, and in other areas in Western Virginia and West Virginia under the current proposed route. The pipeline would simply follow the existing grade, which would greatly reduce construction excavation, and cut and fill. It would eliminate the extreme slopes and karst terrain hazards that the current proposed route has.

In a few areas where the median is too narrow to accommodate pipeline construction traffic could be temporarily diverted to one of the lanes on the other side of the highway, or a temporary roadway could be constructed. In rare cases, the pipeline could be constructed adjacent to the highway. Collocating with I-79, I 64, and I-95 should be further researched, and FERC should be in contact with federal and state highway authorities as part of that effort. It is a superior option to the current proposed route.

Section 3.3.4.2 of the DEIS mentions that the current GWNF-6 route adds 31.8 miles to the original route that crossed Shenandoah Mountain on National Forest land, and may inherently have more generalized environmental impacts than the former route, including forest clearing, waterbody crossings, karst topography, steep slopes, private landowners affected, and more air emissions. This is a rare part of the DEIS that I agree with. FERC should again review the former route to determine if impacts to rare and endangered species on National Forest land can be mitigated to allow that route to go forward, or further review my proposal of collocating with the Dominion electric line right of way through Highland County, as I have previously stated.

The DEIS incorrectly evaluates alternative routes through national forest and the crossing of the ANST and BRP. National forests and public land are given much greater importance in the DEIS than privately owned lands. Public lands are avoided, and private lands are targeted. This is not fair, and it belies our country's tradition of the value and sanctity of private property. Private land is private, and should not be violated for exploitation. Public land is public, and should be more open to a project that, according to FERC, gives a public benefit.

Private land has homes on it. People live in those homes. A person's greatest investment in most cases is their home and property. As I state elsewhere in these comments the ACP will significantly reduce property values for those properties directly impacted and near the pipeline, and these property owners are disproportionately in the lower economic categories. It will threaten their private water supply. It will greatly diminish the scenic beauty of their property and their enjoyment of it. A person's home and property are at the root of their spiritual core. A man's home is his castle, and his land is his kingdom. Private property rights cannot be dismissed and trampled on. Pipeline impacts to private land are up close and personal to those who live there. Most property owners know every square foot of their land. They cherish it, and watch it grow as they grow. Private property should not be violated.

Public land, on the other hand, does not have homes on it. It is generally removed from homes and areas of population. It is not a person's greatest investment. Persons don't get their private

drinking water from it. Large areas of public lands are rarely even visited.

I love our public lands. My wife and I have spent many wonderful days visiting out national forests, parks, and other public lands. These lands should be protected. But they should not be given priority over private land.

The requirements, stipulations, and information needed to evaluate alternative routes through public lands should be the same as through private lands. Yet, they are much stricter through public lands. Much more information and many more studies are required for public land. This is not right. Requirements for both public and private land should be the same. They should be vigorous in order to avoid many negative impacts, but they should be the same. The increased requirements for public land tends to move the ACP onto private lands, where it is more difficult for private landowners to defend themselves against the very large negative impacts of the ACP.

An outstanding example of the double standard between public and private lands embraced by FERC in the DEIS is the proposed tunneling under the Blue Ridge in the GWNF for the BRP and the ANST. This is a very expensive and risky operation that may not be feasible, and carries with it great environmental impacts as well, with disposal of excavated material. It also entails great impacts to private land, specifically the land of 84 year old widow Hazel Palmer on the Augusta County side of the proposed tunnel.

All of this work and expense is being undertaken on the publicly owned Blue Ridge Parkway so that motorists on the parkway will not see the ACP, even though impacts to the scenic views of those motorists would generally be small. If the ACP crossed the BRP in a meadow or area without trees motorists would be unaware that it was there within several years after construction. If it crossed in a forested area, motorists would see a linear gap in the forest around 125 feet wide on each side of the Parkway. Motorists would not see the ACP coming up or going down the steep sides of the mountain, since these areas are generally not visible from the BRP. Views of the Blue Ridge Mountain from areas to the East or west would be somewhat enhanced, since the pipeline would not be visible going all the way up and over the mountain. However the pipeline may still be visible traversing the lower portion of the mountain before disappearing into the tunnel. FERC should require visual analysis from the BRP and from the East and west side of the Blue Ridge to verify the impact to scenic values under both scenarios.

The point I am making here is that extraordinary measures are being taken for this public land, and they are not being taken for private land where visual impacts will be much greater, and in many cases will be visible to more people as well. In fact, as stated elsewhere in this document in my comments regarding scenic values the BRP carries 1,200 motorists per day in the area of the ACP. Scenic Route 220 in the area of the ACP carries twice as many motorists, 2,400 per day. These motorists would see the ACP cutting off and flattening the top of Back Creek Mountain to the West and cutting off and flattening the top of Little Mountain to the East. They would also see numerous large access roads cutting through the wooded west flank of Little Mountain. Private property owners and local residents would see this from their homes every day, and others would see this on a daily basis as they commute to work, or take the bus to school. Motorists who visit the BRP perhaps once per year or less would see a similar view whether or not the ACP was tunneled under the mountain or crossed it.

The same double standard is apparent in the rejection of the ACP crossing Shenandoah

Mountain in the George Washington National Forest, and the rerouting of it through many more private lands on the current route, and with many more environmental impacts.

This double standard, where public land is protected more than private land is not right. FERC needs to revisit it, and get it right.

Section 3.6.2 of the DEIS states that FERC did not receive any alternative valve location site recommendations from stakeholders. This is incorrect. In my comments of 11/14/16 I stated that the valve station for Little Valley should be moved out of Little Valley, and out of my neighbor's back yard.

Other route alternatives that have not been adequately discussed in the DEIS include routes that have less impact to forested lands, less steep slopes, less waterbody crossings, and less impacts to private property.

Routing the pipeline through more agricultural land would reduce deforestation, which is a primary driver of climate change. It would also decrease the impact to scenic values, since agricultural land or non forested land would return to pre-construction appearance within a few years of pipeline construction, while forested land, especially mature forested land, would not return to pre-construction appearance for decades, and in some cases, more than 100 years.

Routing the pipeline along less steep slopes could be accomplished by following highway rights of way, as previously stated, or by following waterways that pass through natural gaps in the landscape rather than going over ridges. In many cases this would also result in less deforestation.

Routing the pipeline along, or near natural drainage divides would avoid waterbody crossings.

FERC is so lacking and liable in its required, but failed duty to consider alternatives that it actually states that a preferable alternative must meet the stated mission of the ACP, and that is to transport 1.44 Bcf/d of natural gas to consuming markets at the delivery points specified by the project's customers. That's like deciding that the only other person you would consider going out on a date with is an identical twin. The DEIS goes on to state that FERC did not consider renewable energy systems because they did not meet the project criteria of transporting natural gas. This is not a reasonable criteria for summarily rejecting these much preferred alternatives, and FERC has failed to consider alternatives to the ACP.

The DEIS states that other existing natural gas systems lack the available capacity to meet the purpose of the ACP, and that modifying these systems could result in impacts similar to the proposed pipeline, or would be economically impractical. This is completely untrue. Numerous existing pipelines could carry all, and more of the natural gas that the ACP could carry, with very minor and inexpensive modifications, and very little impact. Further, they would cost much less than the ACP, result in lower rates for captive ratepayers, and have much less impact than the ACP. My previously submitted comments of 8/7/17 included industry expert Tom Hadwin's thorough and factual analysis of the available alternative pipelines. FERC needs to review these comments again.

The DEIS looks at each existing or proposed alternate pipeline individually rather than collectively in FERC's flawed analysis. Minor modifications to several of these pipelines would enable these lines to carry all of the natural gas the ACP would carry without taking property

from thousands of citizens, without putting tens of thousands of citizens at risk in the pipeline's blast zone and evacuation zone, and with much less environmental damage.

Section 2.2.2.1 states that the mainline pipelines (AP-1 and AP-2) would be collocated with existing rights of way for 48 miles, or 9% of the combined lengths of these pipelines, and the entire route of the ACP is collocated for only 13% of the route. The average collocation rate for pipelines over 300 miles long in our country is around 50%. There is no collocation along the currently proposed alternate GWNF-6 route, even though FERC directed the ACP in a December 2015 letter to optimize and maximize collocation in that 95 mile route. Further, ACP's explanation of why they would not comply with FERC's directive is limited to several paragraphs, most of which does not present a solid argument for failing to comply with FERC's directive.

My earlier comments of November 14, 2016 suggested an alternate route following a very wide existing Dominion right of way through Highland County that would avoid much of the negative impact of the current proposed route. I saw no mention of this in the DEIS whatsoever. Others have commented on this route as well. FERC must revisit and consider this route.

I believe that the ACP has chosen to limit collocation because it is easier for them to route the pipeline through private land. FERC's unbelievable conclusion that there would be no loss of property values facilitates this plan of action by the ACP, as does the double standard regarding routing the pipeline through public lands versus private lands. The taking of private land by a for profit company is against our country's 240 year history of respect for private land. It is Un American. FERC should stand up against the ACP in this regard, and direct the ACP to collocate the route to at least 40% of the total route.

There are many alternatives to the overwhelming negative impacts of the ACP. FERC has not adequately considered them. FERC must do so.

DEIS Incorrectly Dismisses Climate Change

The DEIS incorrectly states that the ACP would have an unknown impact on climate change, while it downplays those impacts, and presents outdated data while not presenting newer data in its findings. The ACP would lock in decades of continued greenhouse gas (GHG) emissions. This could be prevented by using the no action alternative with energy conservation and/or renewable energy systems which are currently available and affordable to supplement any energy needs in the ACP market area.

The DEIS is astonishingly lacking in information regarding the ACP's impacts on climate change, even though it is universally recognized that climate change is a very serious threat, and energy usage, particularly fossil fuel energy usage, is the biggest contributor to climate change. Climate change is not listed in the 5 page table of contents for the DEIS, and only 5 pages of text are devoted to climate change in the 2,376 page DEIS.

Federal agencies have been given guidance by the Council on Environmental Quality to quantitatively assess the impacts to climate change for the projects that they are reviewing. The DEIS fails to do so. In fact the DEIS states that because we cannot determine the projects' incremental physical impacts on the environment caused by climate change, we cannot determine whether the projects' cumulative impacts on climate change would be significant.

FERC admits its failure to comply in that statement.

The DEIS refuses to quantify or even mention the CO2 and methane emissions from the upstream fracking that the ACP would facilitate, even though it is obvious that these fracking emissions would be dependent on the ACP for transport, and would be greatly reduced, if not stopped, if the ACP was not built.

The DEIS mentions the amount of CO2 that would be emitted from gas fired power plants it would serve, but does not mention the impact on climate change that those emissions would create. The DEIS further states that the ACP climate change impacts on the area of the project cannot be determined because climate change is a global issue. This is an incorrect statement, especially since the DEIS lists specific local impacts from climate change in general earlier in the document.

The DEIS refers to the DOE's National Energy Technology Laboratory's May 29, 2014 report: Life Cycle Analysis of Natural Gas Extraction and Power Generation which indicates that life cycle emissions of GHG are lower for energy production from natural gas than from coal. The report also quantifies methane emissions. This argument is flawed in several ways.

First, it does not compare the life cycle GHG emissions with any other energy source than coal. Other energy sources, and especially renewable energy sources have much lower life cycle GHG emissions than natural gas, and actually contribute no GHG emissions, or extremely low GHG emissions, once operating. This again shows that renewable energy systems are far superior to natural gas systems in protecting us from climate change.

Secondly, the above referenced DOE study is outdated and inaccurate. The more recent DOE National Energy Technology Laboratory's August 30, 2016 report by the same author found that methane GHG emissions are nearly twice as high as the 2014 report indicated. This report was available a full 4 months prior to the DEIS being issued. FERC's decision to use an outdated report over the newer report is deceitful at best, and possibly illegal. How can FERC be trusted with reporting accurate information when this important information was left out of the DEIS?

Many studies have shown methane emissions from natural gas systems to be even higher than that. See my comments in my submittal of August 7, 2016 for additional information. In fact, they are so much higher that in many cases burning natural gas results in greater GHG emissions than burning coal. I am sure that FERC is aware of these more recent studies, but chose not to include them in this DEIS. This, along with the above mentioned 2016 DOE study that FERC chose to withhold from the DEIS amounts to a blatantly dishonest assessment of the climate change impacts that the ACP would have.

I would ask any FERC personnel involved in writing this portion of the DEIS to write a letter to their children, their grandchildren, and to other family members who will follow then into the future. The letter should include an explanation of why you chose to ignore climate change in this report.

Oil Change International's report of February, 2017 clearly shows that the ACP GHG emissions would be very large. The report found that the ACP would add about 68 million metric tons of GHG emissions per year. That is the equivalent of about 20 average sized coal plants, or 14 million passenger vehicles. Compare this to the almost zero emissions that would be produced

by renewable energy sources including solar, wind, retroactive hydroelectric, and geothermal, or the virtual zero emissions from energy efficiency and added insulation.

The DEIS states that renewable energy systems were not considered because they did not meet the project criteria of transporting natural gas. FERC, by law, is required to consider alternatives to this project. Why have they not considered the virtual zero impact to climate change from renewable energy sources?

The DEIS states that natural gas burns cleaner than other fossil fuels with 50% less CO2, 70% less NO3, and 99% less SO2 than a coal fired power plant, and that air pollution could increase if no alternative to burning coal was available. There are alternatives to burning coal that are much cleaner than natural gas, like energy conservation, and renewable energy, but FERC refuses to consider them.

Further, this misleading statement by FERC does not discuss methane emissions from the exploration, extraction, storage, transmission, and burning of natural gas. These methane emissions are extensive, and efforts to reduce or eliminate them are weak, and will likely become weaker under the current administration. Additionally, the statement does not take into account that CO2 does not break down except for a very long time in our atmosphere, and that time frame is measured in centuries. Basically, what CO2 goes into the atmosphere stays in the atmosphere.

Every emission of CO2 accumulates in our atmosphere. A reduction in emissions while still emitting CO2, means an increase in CO2 levels in our atmosphere that will remain for centuries. Methane emissions into our atmosphere do not break down for decades. Both CO2 and methane levels are already at historically record levels with CO2 being much higher than it has been for at least the past 800,000 years. Methane levels are 2.5 times higher than prior to the industrial revolution, and are expected to increase another 25% in the next decade.

What this means is that our atmosphere is already a very efficient and dangerous heat trapping system. Even at today's levels of CO2 and methane, and with no further emissions, our planet will continue to heat up beyond our already record setting temperatures. Add more CO2 and methane, and a bad situation becomes much worse… catastrophically worse. So any statement that natural gas is a clean source of energy is incorrect. Burning natural gas will drive us over the cliff of catastrophic climate change.

As I have stated in previous submittals, climate change is mankind's biggest challenge, and I believe that it will kill more people than all previous wars combined, unless immediate and effective actions are taken to stop further GHG emissions. An overwhelming number of climate experts agree that climate change is extremely dangerous. I have reviewed the impacts of climate change in earlier submittals. Please refer to them. I would also remind the reader that besides physical changes to the climate and our planet, according to leading economists, climate change will cause a dramatic drop in gross domestic product worldwide, pushing untold numbers of people into poverty and hunger. The ACP would not stop GHG emissions. It would continue emissions of CO2 and increase emissions of methane for the life of the project, and would exacerbate our ever increasing threat from climate change.

FERC should only approve this project under the following conditions:

1) Methane losses from exploration to burning are kept at 0.5% or lower for the volume of gas

delivered
2) Carbon dioxide is captured and sequestered at all gas fired power plants that are served by the ACP
3) These limits are enforced and monitored regularly, with strict penalties imposed for any violations, with the penalties amounting to no less than twice the amount of profit made through the violating action, and including jail sentences for more egregious violations

DEIS Ignores Old Growth Forests On Private Lands

The DEIS does not mention old growth forests or assess impacts to rare old growth forests on private land, including the old growth and virgin forest documented on the Limpert property that would be cut down in the current proposed route of the ACP. This old growth, and never been cut virgin forest is extremely rare as I have stated in my previous comments, and as shown in forester Mark Sims' report in those comments. This forest is as rare as an endangered species, and should be preserved as they are.

DEIS Table 4.8.9-10 minimally discusses old growth forest on public lands regarding potential amendment 4 to the forest service plan, and this is the only reference that I found regarding old growth forest.

The DEIS states that in determining tree size the ACP used the following definitions to distinguish tree size: large trees were considered to be anything over roughly 50 feet in height with a mature spreading crown. This is hardly an old tree, and a tree of that description could be 50 years old or younger. A forest with trees this age and size has in most cases been cut down 3 or more times, and does not retain old growth characteristics. Forests of this age contain pioneer species like locust and cherry, and few of the species that make up old growth forests. These species do not support native wildlife which evolved in harmony with old growth forests for thousands of years before most of the old growth forests were cut down. They also contain large numbers of invasive species and vines that suppress tree growth, and can spread to other forested areas.

Old growth forests contain tree species that support wildlife as the habitat trees and wildlife have evolved together for thousands of years. These wildlife species provide habitat for a number of endangered species. Old growth forests in the Eastern United States have essentially remained the same for at least the past ten thousand years, following the retreat of the glaciers of the last ice age. These forests are stable, and contain less invasive species than the younger forests. They provide better soil retention, cleaner air, and carbon sequestration than younger forests.

Some trees on the Limpert property are likely 500 years old. As previously stated Mr Sims' cored a 17 inch diameter red oak and found that it was over 205 years old. A number of trees on the property are over 48 inches in diameter, and therefore much older. Mr. Sims did not have a core sampler large enough to core the largest trees. Under the ACP definition of tree size our trees are grouped together with trees 50 years old, and perhaps younger.

The DEIS does, however mention that forested areas would have significant impacts from fragmentation, and the trees that would not be cut by the clearing for the pipeline would suffer from the fragmentation and edge effect as well.

In section 4.13.3.4 the DEIS states that vegetation impacts would be minor in comparison to

the abundance of comparable habitat in the area. This is incorrect.There is no comparable habitat in the area. As I previously stated, I contacted the Shenandoah National Park botanist, and was advised that no section of forest in the entire 300 square miles of that park contained trees as old as the trees in our forest that would be lost to the ACP. Forester Mark Sims stated in his report, which I included with previous comments, that he has never seen an older forest in Virginia in his 39 years as a forester. I am certain that there are no other forested areas along the entire path of the ACP that have a stand of trees this old.

Old growth forests like ours are a truly unique habitat that support specific species that are specially suited for old growth forests. This includes very large trees with exfoliating bark like shagbark hickory, sugar maple and other tree species that provide habitat for the Indiana Bat and the Big Eared Bat. Most tree species develop exfoliating or deeply grooved bark as they become very large, like the trees on our property, and they provide this type of habitat. The FERC reviewer should refer to my previous comments regarding the benefits of old growth forest.

Our forest makes up a very large interior block of forest much larger than 35 acres in size. The 120 acres is almost entirely forested, and the forest continues for many miles in all directions. It continues for more than 5 miles to both the North and the South along the western side of Jack Mountain. It continues for an estimated 3 miles to both the East, to the Burnsville area, and to the West, the toe of the West side of Little Mountain. This is an extensive forested area with our property virtually in the center of it. It's a continuous stretch of wild forest. This forest should not be cut down for the ACP, and our old growth virgin forest should not be cut down as well.

We received an offer to sell a right of way for the ACP. We will not accept that offer, or any other offer. The ACP will have to take our property through eminent domain proceedings if they plan to place the pipeline through our property. However, in the offer we found that logs over 11 inches in diameter from trees removed from the right of way would be piled off the right of way on our property and it would be our responsibility to deal with them, without using the right of way to remove them. However, the DEIS states that all timber operations must be contained within the work area. The ACP statement and the FERC statement are not compatible.

Leaving the logs outside the right of way without allowing use of the right of way to remove them is unfair. This leaves the landowner with unsightly piles of logs through the length of the right of way through the property. In our case a number of these logs would be over 4 feet in diameter, and very valuable. Since our property is virtually entirely wooded they could not be removed unless logging roads were cut through our forest to access the various piles of logs. This would require cutting down more old growth trees, and further fragmenting our old growth forest. This is not acceptable.

Several groups and individuals have visited this unique forest. Tours of the forest have been conducted for the Bath County High School and Wild Virginia. Several journalists have toured the forest and written articles published in Earth Island Journal and to be published in the Sierra Club magazine. Another tour of the forest is planned for May 6th of this year, and at this time 198 persons have expressed interest in attending.

FERC must require that the ACP avoid cutting down the old growth and virgin forest on the Limpert property. This is a rare and unique forest with great scenic, historic, recreational, educational, and ecological value.

DEIS Incorrectly Dismisses Negative Impacts

In almost all cases the DEIS greatly understates the negative impacts of this project. The statement that negative impacts can be mitigated to less than significant status is false. The negative impacts from this project would be tremendous, and cannot be adequately mitigated.

FERC has purposefully chosen biased and incomplete information to arrive at their incorrect conclusion of less than significant impacts from this project. In so doing, FERC has gone to the same playbook of misleading, incomplete, and inaccurate information that the applicant has used to incorrectly downplay the negative impacts. In fact, FERC has relied on applicant and industry studies that are obviously biased, and in some cases FERC has virtually copied and pasted those invalid comments into the DEIS.

At the same time FERC has discounted and ignored valid, scientifically accurate information, and comments from many knowledgeable and qualified citizens that overwhelmingly prove the significant negative impacts.

This biased conclusion not only places the public at great risk, it condemns them to a reduced quality of life.

The ACP's failure to submit the necessary information for the draft EIS, and their consistent misleading, inaccurate, and simplistic filings brings up another very important issue, and that is their performance in constructing the pipeline, and carrying out any stated mitigation. Information submitted to FERC and other agencies in the application process has been misleading, incomplete, and inaccurate. This submission of inaccurate information has been submitted knowing that it would be reviewed by FERC and other agencies. On site work on the pipeline, on the other hand, will not be reviewed and monitored by regulatory authorities to any great extent. FERC will have a limited presence at best. The Pipeline and Hazardous Safety Administration, with little more than 100 inspectors across the country, and many other pipelines under construction, will have a minimal and transient presence, if any presence at all. Even the industry itself admits that qualified pipeline contractors and inspectors are in short supply because of the current boom in the industry. The Virginia Department of Environmental Quality has stated that they will not inspect construction of the pipeline. The Army Corps of Engineers routinely does not have a presence. Even citizens will not be allowed on the construction site to monitor what is happening in their neighborhoods, or even on their own property.

I assume that the ACP will hire contractors to inspect some aspects of construction. But that's an inherent conflict of interest. It's like having the fox watch the henhouse. Inspection and enforcement will be influenced by the payments that the contractor is receiving. Will a contract inspection company receive further contracts for future projects if they find and act on more or less violations? You know the answer.

So the bottom line is that construction will be undertaken with little or no inspection and enforcement. It will mostly be up to the ACP to self monitor their own work.

The ACP has a proven track record of performing poorly even while under scrutiny for virtually every filing they've submitted. Performance on the job can be expected to much worse without

that scrutiny. Will the ACP actually follow all the procedures that they have stated they will follow in their filings? I think not. Will the ACP go out in boats to warn fish that a blast is pending as the DEIS states? Will the ACP clean each vehicle before they leave the site to stop the spread of invasive species per the DEIS? Will the ACP have a karst expert on site in karst areas? Will the ACP inspect each pipe segment for internal and external corrosion protection just prior to placing the pipe in the trench? Will the ACP immediately remove all fly rock that leaves the right of way? Will the ACP conduct additional analysis on the steep slopes in Western Virginia if they find tension cracks, slumping, erosion, or seeps? I think that all of these stated procedures would be highly suspect given the ACP's proven unsatisfactory performance in their filings, and the lack of oversight, inspection, and enforcement on the construction site.

The final product will very likely be shoddy work performed primarily for the purpose of saving money on construction costs and maximizing profits. This threatens public safety, public health, clean water, clean air, and property values. The ACP's earlier filings that they would construct the pipeline under harsh winter conditions shows how reckless they are, and how eager they are to sacrifice all but their profits. The landslides that they caused on steep slopes in West Virginia show a track record they should not be allowed to repeat. This project is a disaster in the making, and FERC should reject it unless safeguards are better incorporated into the process.

FERC must require sufficient independent inspection and enforcement personnel that are not picked or paid by the ACP. These personnel must be required to be present at all times when the pipe is being placed in the trench, welded, and backfilled. They must also be present during tree clearing operations, sediment control installations, grading operations, geohazard and karst assessment and mitigation, waterway and wetland crossings, during restoration, and during maintenance operations for a period of five years after construction is completed. These inspectors must be independent of the ACP, and must have the authority to issue enforcement actions, fines, and stop work orders for violations of approved procedures and mitigation practices by using a predetermined criteria to apply specific enforcement actions based on the severity of the violations.

Eminent Domain Without Public Need

FERC fails to prove that this project meets the public necessity and convenience requirement that would enable it to approve the project and subject thousands of property owners to having their property being taken by a private corporation through eminent domain. To the contrary, this project would provide very little benefit, and enormous negative impacts. I have discussed this in numerous comments filed previously for this project. Nevertheless, I will summarize them again.

There is no urgent need for natural gas in the area that the ACP would serve. Energy use in Virginia and North Carolina has decreased in the past decade, and is only expected to increase 0.4% per year for decades to come per the EIA. Existing coal plants may not be decommissioned. The current administration has vowed to bring back coal. Additionally, the Clean Power Plan is currently held up in the courts, blocked by a new executive order, and may very well be eliminated. Affordable and much less intrusive energy conservation and renewable energy systems can easily provide all of the stated market's energy needs. Our nation is experiencing an unprecedented energy glut. I feel confident that natural gas carried by the ACP will be shipped overseas with no benefit to the stated market area. FERC should

require that no gas carried by the ACP will be shipped overseas. Even if no natural gas is shipped overseas, areas from Nelson County west will not receive any gas. These areas will experience all pain, and no gain.

Additionally, there are already more than enough existing and underutilized natural gas pipelines in place that could carry all of the gas that the ACP would carry to the same markets if that gas was really needed.

The numerous negative impacts that I have previously stated include:

Loss of private property rights
Reduced enjoyment of property
Loss of scenic values
Disruption to property owners and communities from construction and operation
Increased public safety risks, including the risk of terrorism
Reliability issues due to a long vulnerable transmission line
Public health risks from polluted, diminished, or cessated drinking supplies, and air emissions
Stress related issues and health impacts
Property value losses, resultant property tax revenue losses, and lower potential for prospective buyers to purchase property in impacted areas
Reduced tourism and loss of tourism revenue to Bath County and other rural areas
Deforestation, including old growth virgin forest on our property
Loss of wildlife habitat
Water pollution from construction and operations with very little pollution controls
Approximately 20 square miles of soil disturbance
Countless crossings of streams, rivers, and wetlands
Climate change through continued discharge of CO2 and increased discharges of Methane
Expenditure of federal, state, and local government time, energy, and money to review the project
Invasive species proliferation
Facilitation of fracking which causes negative health impacts and earthquakes
Negative health impacts from burning natural gas, including the discharge of NO2, the precursor of smog
Locking in decades of CO2 and methane emissions while slowing the growth of clean renewable energy
Overwhelming public rejection of the project
Increased rates for captive ratepayers

Public Safety and Pipeline Integrity

FERC states that the project will be constructed under federal DOT PHMSA regulations, and will be safe. This is incorrect. The pipeline poses a significant public safety threat.

The DEIS fails to mention the explosive capacity of the proposed pipeline. It fails to describe the size of the impact radius, or blast zone, where death is almost certain in a pipeline explosion. It fails to mention the size of the evacuation zone, where death or serious injury is likely unless a person quickly gets out of that zone. It fails to state how many total properties would be in the blast and evacuation zones. It fails to mention how many persons reside or frequent those properties. It fails to notify those persons of the potential danger the face from a

pipeline explosion. This is unconscionable, and is a public safety disgrace

Tens of thousands of properties would be in the blast zone and evacuation zone of the pipeline. The blast zone is 2,200 feet wide, and covers over 200 square miles. The evacuation zone is 1.4 miles wide, and covers over 800 square miles, nearly 2/3 the size of the state of Rhode Island.

The DEIS does not show our property or any other in Bath County, Virginia as a High Consequence Area or an identified site. Our property and nearby properties in Little Valley are clearly in a High Consequence Area under DOT 49 CFR 192 since rescue or evacuation would be impossible during a pipeline explosion, and persons with decreased mobility live in the area. In fact, seven homes, including ours, are in an area of Little Valley where it would be impossible to escape from the evacuation zone due to the pipeline cutting off egress. My wife and I, and our neighbors would be trapped in the evacuation zone. Under DOT 49 CFR 192 High consequence areas like ours are required to have an integrity management plan. Apparently we don't have such a plan, since we are not listed as a High Consequence Area.

We have reviewed the layout of our property and our neighbors' property in person with FERC staff and in previous submitted comments. We have physically shown FERC staff that escape would be impossible. These communications included a clear map of the proposed pipeline, the blast zone, and the evacuation zone through the upper or southern portion of Little Valley, the one public road which deadends in the evacuation zone at the head of the valley, the homes that are in the High Consequence Area, and the private drives to those homes. In fact during the May, 2016 Scoping meeting at Bath County high school I personally showed this map to FERC staff, including lead environmental reviewer, Kevin Bowman. I vividly recall that Mr. Bowman put his finger on the map at the location of our home, and traced a path out from the back of the house up the wooded mountain away from the pipeline, while advising me that my wife and I should walk away from the explosion, should one occur. FERC's failure to follow through on this issue is unacceptable.

FERC advises that the ACP wrote to Bath County Supervisor Stuart Hall, and advised that locations like ours with single access roads and no safe egress will be handled on a case by case basis. This is not acceptable. FERC and the ACP must comply with DOT 49 CFR 192. I should also advise you that Stuart Hall has been indicted for election violations and found guilty. This occurred well before the release of the DEIS, and FERC should have been aware of it. I repeat that escape or rescue from a pipeline fire or explosion from our home and the upper portion of Little Valley would be impossible. FERC and the ACP must obey the law, and include us and others in a High Consequence Zone with an integrity management plan, and a realistic plan as to how we would be rescued.

The DEIS advises that an odorant would be added to the natural gas in the ACP to further assure pipeline safety. However, large portions of the pipeline are in rural isolated areas where it is extremely unlikely that a person would smell a gas leak, and the odorant would not make a difference in pipeline safety.

The DEIS states that PHMSA regulations ensure that people and the environment are protected from pipeline incidents. Nevertheless, section 4.12.12 of the DEIS shows an average of 69 pipeline incidents per year in the United States, and an average of 2.5 incidents per year in Virginia. That is hardly a credible record of safety, and is particularly unacceptable given the

extreme explosive capability of the ACP, and the steep landslide prone slopes, karst terrain with sinkholes and caves, and steep narrow valleys with floodprone streams creating very difficult working conditions, and unsafe conditions in general in which to construct a safe pipeline. FERC's statement in this regard is extremely irresponsible and false.

Section 4.12.13 of the DEIS states that based on earlier pipeline safety data that there will be an average of one pipeline fatality from the ACP every 156 years. Again, this is a very irresponsible statement, and it does not take into account the extreme explosive potential of the ACP, the extreme conditions in which it would be constructed and operated, or the proven history of pipeline accidents over the past 20 years.

As I have stated, the ACP route is primarily through rural areas. Pipeline safety regulations are weaker in rural areas than in more populated areas, and therefore, pipeline failure is more likely in rural areas. The regulations allow thinner pipe walls in rural areas. Requirements for hydrostatic test pressures, and the distance between sectionalizing valves are all reduced in rural areas, as are pipeline inspections, the testing of welds, and leak surveys.

Furthermore, and as I have earlier commented, many of the PHMSA regulations are premised with "escape clauses" like "where possible", or "if feasible" that weaken the safety protections that the regulations are supposed to uphold.

Section 4.12.4 of the DEIS dismisses the threat of a terrorist attack on pipeline integrity and public safety by saying that our country's security agencies are constantly working to improve safety, but gives no indication of how they are working to reduce the potential for a terrorist attack on natural gas pipelines, or the ACP. The DEIS then goes on to state that there is a continuing need for construction of natural gas pipelines, and construction of them cannot stop due to a terrorist threat. I have previously commented that the ACP faces a severe threat from terrorists, and discussed how easy it would be for a terrorist to drive to an isolated area, place a bomb on the ground above the pipeline, and detonate the bomb and the pipeline. There is no security whatsoever for this scenario. Additionally, cyber terrorists could hack into the pipeline operation computers, and manipulate valves and other structures to facilitate a catastrophic explosion.

The DEIS mentions that there are 12.5 miles of slopes greater than 35% along the proposed path of the ACP in Virginia. Even this statement does not come close to describing the steep slopes on and near our home in Little Valley along the path of the proposed pipeline. Please note the slopes along the proposed path of the pipeline through our property include sideslopes up to 78%, a center line up to 58%, and over 1,000 consecutive feet of the centerline over 40%. Please also note, as I have previously commented that the average slope of the proposed pipeline on the East side of Little Mountain in Little Valley is 47% for a distance of 1,600 feet, and this includes over 300 consecutive feet of slopes at 60%.

As I have stated in earlier comments, these slopes have already slid in extensive landslides during a 4 inch rain event in the summer of 2015. A landslide 500 feet long, 35 feet wide, and up to 7 feet deep occurred on the East side of Little Mountain within several hundred feet of the proposed pipeline. This landslide would have exposed the pipeline had it occurred in the area of the pipeline. Another landslide 40 feet long, 40 feet wide, and up to 5 feet deep occurred during the same storm event on the bank of Little Valley Run within several hundred feet of the proposed pipeline crossing. A number of significant landslides occurred simultaneously on our property within several hundred feet of the proposed path of the

pipeline.During the same event. These landslides occurred on ground that had not been significantly excavated and blasted, and thus made less stable by pipeline placement. Post excavation areas have a higher risk of sliding than natural ground, and are likely to occur.

I have also commented regarding the extensive karst sinkholes in proximity to, and on both sides of the proposed pipeline, and the possibility that diversion berms to direct water away from the pipeline on the steep mountain sides could cause sudden formation of new sinkholes due to changing water runoff patterns.

I have also commented about the extreme flooding and debris blockage in Little Valley Run that occurred during the same storm event in 2015 and permanently altered the stream channel with a debris accumulation that included many boulders, a number of which are 5 feet long.

Finally, I want to again state that the ACP stated before the Augusta County Board of Supervisors in August of 2014 that they would not construct the ACP in Bath County due to the steep slopes and karst terrain. They know that this is an unsafe location to build the pipeline but they, as well as FERC, now somehow find that it is safe.

FERC's assertion in the DEIS that this pipeline is safe is pure nonsense and patently false. I repeat that my wife and I will seek significant damages against FERC, the ACP, and any responsible person, if we are injured in a pipeline accident, or if our home or property is damaged or destroyed by a pipeline accident. We have also advised our heirs to do the same should we be killed in a pipeline accident.

The ACP Cannot Be Constructed On Miracle Ridge

I previously submitted comments regarding the steep and narrow ridge through the center of our property where the ACP is currently proposed. See my comments of November 14, 2016. My wife and I have named this Miracle Ridge. We gave it that name because of the uplifting spiritual feeling that we get every time we walk on it. As I have also previously stated in November 14, 2016 comments, and verified by the report from forester Mark Sims in those comments, this ridge and other areas of our property contain very old growth forest, and a large part of this forest, including the forest on the Miracle Ridge is virgin forest, meaning that it has never been cut. I will comment further regarding this ancient forest that would be destroyed by the ACP later in these comments.

For now, I will concentrate on showing that the ACP cannot be constructed on Miracle Ridge due to the physical limitations of the very steep slopes. I have a professional background in excavation practices, erosion and sediment control, and environmental regulation. Using the parameters set forth in FERC's description of how the pipeline would be constructed, I computed the impacts that pipeline construction would have on our property.

The pipeline would follow Miracle Ridge for most of the 3,000 foot route through our property. This is a very steep and narrow ridge with very steep side slopes. My computations and conclusions follow, and I am confident in their reliability. All measurements were completed by my wife and I using an inclinometer and measuring tape. Computations regarding cut and fill were made using graph paper. I would encourage FERC to hire an independent engineering firm to verify my findings. I am confident that they are accurate. Please note that percent slope

is computed as rise (or fall) over run. In other words if a slope rises 6 feet in a horizontal distance of 10 feet it is a 60% slope. A 60% slope is barely walkable. Anything greater cannot be walked.

Total length of proposed pipeline through property - 3,000 feet
Average slope of Miracle Ridge - 31.6%
Steepest slope of 100 foot segment - 58%
Steepest slope of 1000 consecutive foot segment - 46%
Average north sideslope - 66%
Steepest north sideslope - 78%
Average south sideslope - 39%
Steepest south sideslope - 58%
Note: south sideslope extends hundreds of feet at these same slopes before reaching bottom of Cathedral Hollow to the South…north sideslope extends at least 100 feet at these same slopes before reaching waterway at toe of slope. In other words, these same slopes extend down the sideslopes well beyond the proposed work area.

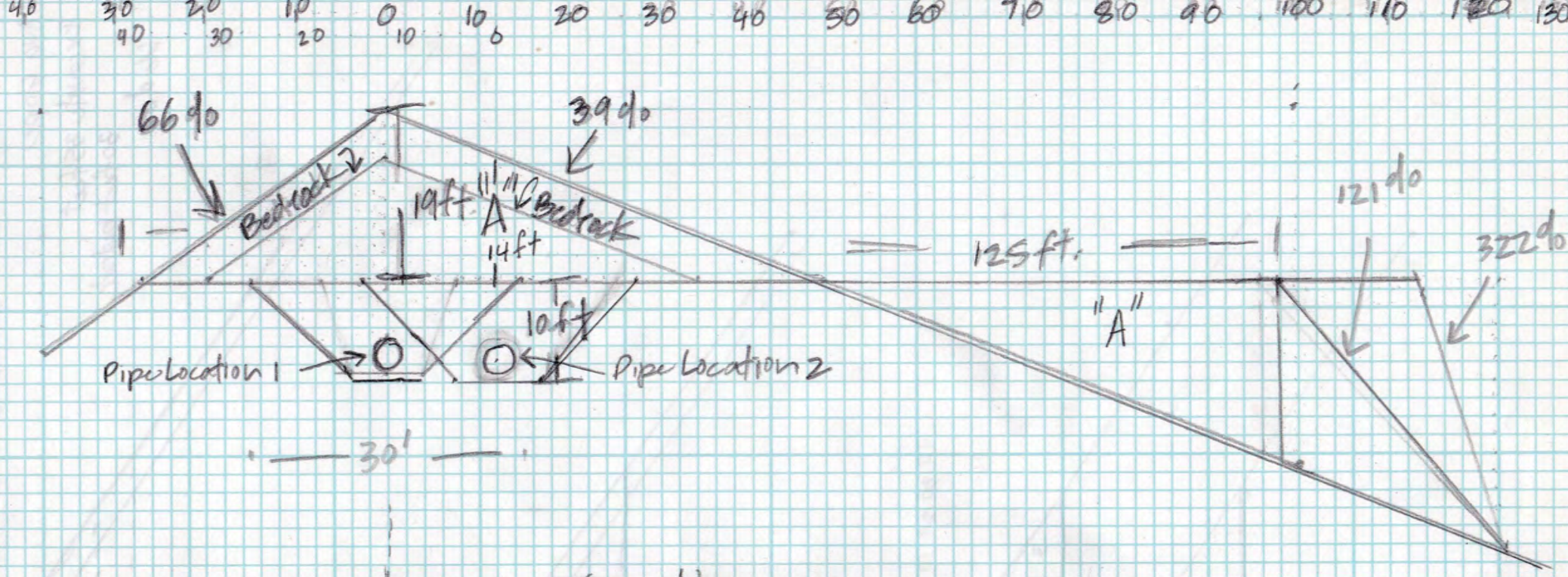
The typical construction right-of way drawings C-2 and C-3 in the DEIS show the pipe being placed in a flat area with no side slopes. There is no typical drawing in the DEIS showing side slopes, or the increased trench width of 30 feet for trench construction on steep slopes. The width of the bottom of the trench is not shown as well, although it appears to be about 6 feet wide. That width is nowhere near the required width for safe working conditions. It would leave only 15 inches of workspace on each side of the pipe. It would jeopardize worker safety, and would make safe installation of the pipe impossible. Material would have to be compacted under the pipe to keep it stable, and this would be impossible given such limited work area. Additionally, since the pipe would be installed on a slope as steep as 58% and averaging 46% for 1,000 consecutive feet it would be difficult for workers to maintain their balance, much less safely weld and install the pipeline.

FERC is remiss in not showing a typical drawing for sloped land, and not requiring detailed engineered drawings for pipe installation in these steep areas. A large part of the ACP is proposed through rolling piedmont and very steep mountainous land, virtually the entire width of the Appalachian Mountains. Drawings C-2 and C-3 in the DEIS are not representative of these areas, and approving this project without valid and reliable engineered drawings is unacceptable.

The DEIS adds 25 feet of additional workspace, but limits the right of way to a total width of 150 feet in steep areas. The DEIS further states that the area would have to be flattened 125 feet wide in order to create a safe work area for construction.

Please refer to the attached cross section of Miracle Ridge showing pipeline construction in Figure 1. This is a rough drawing, and may not show the exact cut and fill, but it is very close to the cut and fill that would be performed should the pipeline be built. It indicates the extreme difficulty in constructing the pipeline along Miracle Ridge. This drawing is far superior, shows much more detail, and is much more representative of the required excavation in steep areas than the inadequate drawings shown in the DEIS, which show the pipeline being constructed on flat ground.

ADD FIGURE 1



North

North sideslope extends an estimated 100 feet at 66 do slope to sinking stream at toe of slope

South

South sideslope extends at this 39 do percent slope for hundreds of feet before leveling out near the bottom of Cathedral Hollow

FIGURE 1

Please note the following in Figure 1:

It shows the average north sideslope of 66% and the average south sideslope of 39%.

It adds 25 feet of additional work space as shown in the DEIS drawing C-3 for a total of 150 feet due to the steep slopes requiring a wider trench of 30 feet at the top and 8 feet wide at the bottom. That appears to be the width at the bottom in drawing C-3, although the width is not shown, and an 8 foot width would seem to be inadequate for safe pipeline placement. More than likely the bottom of the trench would have to be at least 10 feet wide to give the workers an adequate and safe work area. A 10 foot wide or wider bottom width would require more material to be excavated and temporarily stockpiled.

Bedrock is shown at 5 feet under the surface.

Two scenarios are shown for the center line.

Scenario 1 shows the center line directly under the top of the ridge as indicated by the survey markers that were placed on the property by Doyle surveyors on 1/18/17. Depth of cut for pipe placement in scenario 1 is 29 feet, with 24 feet through bedrock.

Scenario 2 shows the center line offset 12 feet to the south of the top of the ridge/survey markers. This allows for a 24 foot depth of cut for pipe placement, including 19 feet through bedrock.

The 121% slope on the South sideslope is created by placing the material cut from the North sideslope to create part of the 125 foot flat work area.

The 322% slope on the South sideslope would be created by also adding the material cut from the trench. It is possible that this material could be temporarily stored on the flat work area to avoid the 322% slope and the difficulty in retrieving this material to place back in the trench.

“A” indicates identical quantities of material cut from the South sideslope and then filled on the South sideslope to create the bulk of the 125 foot flat work area.

Please call me at 540-839-3202 or 301-416-0571 or e-mail me at wflimpert@gmail.com with any questions about Figure 1, or my computations.

In order to avoid placing the pipe in fill it would have to be placed in the North side of the right of way. Therefore, the North side would be the “spoil side” and permanent right of way, and the South side would be the “working side” and the temporary construction right of way. Nevertheless, fill material would have to be placed on the very steep south sideslope because the even steeper north side would have to be cut significantly.

The minimum amount of excavation needed would be as follows:

Depth of cut for pipe placement - 24 to 29 feet, including 19 to 24 feet through bedrock
Length of fill placed on 39% slope - 74 feet
Cross section of earth excavated - 330 square feet, and then placed as fill - 330 square feet
Cross section of bedrock excavated - 568 square feet, and then placed as fill - 568 square feet
Cross section of total excavation - 898 square feet, and then placed as fill - 898 square feet

Total earth excavation and fill on the property - 990,000 cubic feet, or 36,000 cubic yards of excavation and 990,000 cubic feet, or 36,000 cubic yards of fill.
Total bedrock excavation and fill on the property - 1,704,000 cubic feet, or 63,111 cubic yards of excavation and 1,704,000 cubic feet, or 63,111 cubic yards of fill.
Total excavation and fill on the property - 2,694,000 cubic feet, or 99,778 cubic yards of excavation, and 2,694,000 cubic feet, or 99,778 cubic yards of fill, or over 33 cubic yards for each foot of pipeline through the Limpert property.

In order to avoid a 31 foot vertical wall of fill at the South limit of the 125 foot flat area, some fill material from the leveling work would need to be placed in the remaining 25 foot additional work space. This would result in an unstable and unacceptable 121% fill slope in the additional work space that would be 31 feet high. A slope this steep would not be stable. It would collapse unless controlled by a retaining wall.

If the additional material excavated for the trench was also temporarily placed in this area the fill slope would increase to an almost vertical 322%. This slope would be unstable as well, unless controlled by the same 31 foot high retaining wall. This material could not all be placed on the North side of the trench due to limited work space, and large amount of material from the 30 foot wide trench. Placement on the flat south side of the trench would encroach on the needed flat work space.

Placement of fill on the 39% south sideslope would be extremely reckless and unsafe. A slope this steep cannot accommodate a large amount of fill. The fill would likely collapse in a landslide and run down the slope. Keep in mind that the majority of the fill would be unconsolidated rock from blasting. Rock cannot be compacted and it would remain unstable. Keep in mind as well that the extensive blasting needed through bedrock in this area would further exacerbate the instability of the fill slope and create an even larger potential for slope failure and landslides.

In order to successfully revegetate this area soil, topsoil, and rock would have to be segregated in stockpiles. The rock would need to be rolled extensively in order to try to reduce voids between the rocks. Soil would then be placed on the rock fill, and a large part of it would likely fall through the voids in the underlying rock fill. Then topsoil would be placed on top of the soil.

Section 2.3.2.6 of the DEIS states that the trench must be free of rocks. So the trench must be filled with soil. If bedrock is 5 feet under the surface of the ground 70% of the excavated soil would be needed to fill the trench. If bedrock is 3.5 feet below the surface all of the excavated soil would go into the trench. If bedrock is less than 3.5 feet below the surface there would not be enough soil to go into the trench. I believe there is a very good chance that bedrock is less than 3.5 feet of below the surface on this very steep and narrow ridge, and there would not be enough soil to fill the trench. This would leave no soil to spread on the remaining 125 foot rock fill area, and it would remain barren and unvegetated for many years into the future. Even if bedrock is 5 feet below the surface there would only be enough soil left over from filling the trench to cover the rock with only about 6 inches of soil, and as I stated, a large amount of this would likely fall through the voids in the rock fill, leaving little if any soil on the surface for revegetation.

The figures that I used in these computations are based on the average slopes for Miracle Ridge. In areas where the slopes are steeper, with the main slope at 58%, the North sideslope

at 78%, and the South sideslope at 58% construction would be even more difficult and unsafe.

I understand that these issues, my computations, and figure 1 may be difficult for the FERC reviewer to fully comprehend. Therefore, I ask you to contact me to discuss these issues, and to have a qualified civil engineer who is familiar with excavation and blasting in steep mountainous slopes thoroughly review these comments, and to contact me as well.

The amount of excavation and blasting that would be needed on our steep land is hard to imagine. All of this would be visible from our front porch, and our scenic view of Miracle Ridge and our old growth forest across Cathedral Hollow would be gone forever.

It is obvious to me that this proposed route would be a disaster to my wife and I if it is attempted. It would require extensive blasting through bedrock, and an incredible amount of excavation that would still leave very tall, steep, and unstable fill slopes. The blasting could easily collapse the limestone water carrying channels that bring drinking water to our wells and springs in Little Valley. Not surprisingly the ACP has admitted no liability for any of those numerous drinking water sources except one well, which is within about 300 feet of the proposed line. We and our neighbors could all lose our water with no liability whatsoever for the ACP.

Keep in mind as well, as I have earlier stated, that there are several large landslides on our property and in Little Valley, all within several hundred feet of the proposed line that occurred just a little less than 2 years ago. These occurred under natural conditions, with no excavation, loose fill material, or blasting involved. Carrying out these activities in our steep area could easily cause further landslides and catastrophic pipe failure.

Ours is not the only location in Western Virginia and West Virginia where the ACP is planning to conduct such reckless excavation and blasting. More than a dozen mountaintops would be removed in similar operations leaving permanent scars, landslide threats, and the potential for a catastrophic explosion. Many other very steep slopes, and many that have been shown to have a high potential for landslides would be cut open, and left in an unstable condition, with a highly explosive gas pipeline just under the surface.

I have been continually appalled at the ACP's lack of foresight in their stated plans. They have consistently downplayed the consequences of their proposed actions, and put tens of thousands of citizens at risk by their carelessness. FERC, fully funded by the energy industry, has been equally blind to ACP's proposals, and is content to rubber stamp them. I have never seen such careless planning that could result in such dangerous and injurious consequences.

The ACP should not be constructed as currently proposed on Miracle Ridge through our property due to the extreme slopes, which create unsafe working conditions, pipeline safety issues, landslide potential, erosion and sediment control issues, potential for water pollution to private wells and springs, and extreme difficulty in revegetating the area because of the large amount of rock and small amount of soil.

If the ACP is constructed it should be rerouted away from Miracle Ridge, the Limpert property and Little Valley, which contain similar terrain, and any other similar steep narrow ridges.

Sinking Streams Adjacent To Proposed Pipeline On Limpert Property

During the initial Doyle/ACP survey of our property on January 18, 2017 we observed and documented the tributary to Little Valley Run at the toe of the North slope of Miracle Ridge, where the pipeline is proposed, to be sinking into the ground. It was running strongly above this location, and then abruptly sinking out of sight, and not resurfacing at any apparent location downstream. The stream bed below this location was dry. We also observed and documented what appeared to be a large limestone rock in this same area. We brought both of these issues to the attention of Eric Donajkowski of the survey crew who was at that location with us, and witnessed the sinking stream and the rock. We advised him that the sinking tributary and limestone rock indicated that karst conditions are present in this location, and not just in the valley floor of Little Valley. Mr. Donajkowski agreed with our findings in this matter.

Survey crew members stated during the survey that spoil material from pipeline excavation would be placed on the North side of the center line. The center line as marked by the survey crew follows the center of very narrow Miracle Ridge through all but the very westernmost portion of our property, except for one eastern location where the center line is about 15 feet down the steep north sideslope. The North sideslope of Miracle Ridge is consistently in the 78% slope range for almost all of the proposed path through our property, and averages 66% slope for the entire length through our property. Further, the South sideslope of Miracle Ridge is also very steep, averaging 39%, and up to 58%. This would require extreme excavation and blasting to level the ridge to the 125 foot flat safe working area, with a possible 25 foot planned additional workspace due to the larger trench required in steep areas such as this.

On March 4, 2017 my wife and I once again observed and documented the sinking stream at the toe of slope on the North side of Miracle Ridge. The stream continued to sink at the same location previously discovered. Stream flow was less than observed on January 18, 2017. I estimated the stream flow at 2 gallons per minute. The stream was flowing for only about 60 feet upgrade from the sinking location. We measured this location at about 350 feet downgrade from where the stream crosses the property line between our parcels 14-18C, and 14-18E. We followed the channel down from the sinking location all of the way to where it enters the perennial tributary which starts at Big Spring on our property. This is greater than 1,000 feet. The channel was dry for the entire length and we could not hear water flowing under the rocks for any of that distance.

We also found a stake that the survey crew had placed in the same channel 171 feet above the property line between our two parcels on parcel 14-18E. The stake was marked with apparent GPS coordinates N38.27468 W079.31973. We found water pooled under a large rock at this location. I believe this is the highest location where the surveyors first found water in the hollow. This pooled water was not running in the channel, and we could hear no water under the rocks in the channel below this location until the 60 feet of open water mentioned previously. This indicates that water is sinking at this location as well.

We observed, documented, and photographed the stream at the north toe of the slope of Miracle Ridge again on March 24, 2107. Flow was again about 2 gpm, and the stream was sinking at the same location. The channel below was completely dry with no sound of water under the channel all of the way down to where it meets the perennial tributary to Little Valley Run. We also found and documented several springs to the north of this tributary that were sinking as well. Water was running under a rock at the location formerly marked with GPS coordinates, and I heard water under the rocks about 10 feet above this location as well. I did not hear water in the channel below this location, but I heard water in under a large number of rocks in several locations north of the channel below this area.

Cathedral Hollow at the south side of Miracle Ridge also contains an intermittent tributary to Little Valley Run that sinks as well. We have frequently seen water in this channel at the property line between parcels 14-18C and 14-18E with no water in the channel below. There was no water in that channel the day of the survey. Mr. Donajkowski also inspected the headwaters of this tributary in attempting to locate the spring or springs that initiate this waterway. On March 24, 2017 my wife and I inspected and documented through photographs that this stream was running and sinking in several locations on our property as well. The lower 500 feet of the channel on parcel 14-18C was dry with no sound of water under the channel, and there was only water in a few pools above this location. There was the sound of water under the channel at the border of Parcels 14-18C and 14-18E, but no surface water.

I observed, documented, and photographed both streams again on April 2, 2017. Approximately 1/2 inch of rain had fallen on March 31, 2017. There was increased flow in portions of both streams with a maximum estmated flow of 6 gpm in the stream at the north toe of the slope of Miracle Ridge. Flow volumes varied from about 2 gpm to 6 gpm in the areas of channel flow. This stream was risng and sinking at several more locations than previously, including an area of flow below the previously noted area . A very large subsurface flow was heard in the scree rocks to the north of the channel within 100 feet up grade and down grade from the property line between our two parcels without flow in the channel, which is at a lower elevation in this area. A large subsurface flow in scree rocks was also heard about 10 feet above the previously noted Doyle GPS ribbon loctaion. I heard no water above that location. I noted and marked 3 more springs within 50 feet of the channel in this location, and all of them were well within 500 feet of the construction zone. This brings the total number of springs north of the proposed route of the pipeline, and in close proximity to 5. The lower portion of the channel was again completely dry with no sound of water running under the channel.

The stream in Cathedral Hollow was dry at our lower property line. I found that water was flowing into the pool approximately 500 feet above the property line at an estimated 2 gpm, but sinking at this location. There was continous flow in the channel upstream from this location to where a trail leads to our home. I did not follow the channel futher upstream on this date. I observed that the flow varied in volume during this stretch of channel, and in some areas was barely flowing.

On April 3, 2017 I inspected the stream in Cathedral Hollow from the trail leading to our home to it's source. The stream was running near the trail to our house, and was rising in the channel about 100 feet upstream of that location. The channel was dry above that location except for about a 20 foot stretch with a very small amount of runnign water. The spring in Cathedral Hollow was running at an estimated 2 gpm, and was flowing continuosuly all of the estimated 150 feet to the stream channel. That flow sank when it reached the stream channel, and the stream channel was dry with no sound of water under the channel below this location. About 100 feet upstream from this location water in the channel was sinking into the channel. Above this location water was either visible flowing in the channel, or audible just under the channel. Water was audible under the rocks in the channel to about 300 feet above the line between our two parcels. I could not hear water under the rocks immediately above this location.

These inspections show that the stream at the north toe of the slope of Miracle Ridge, where the pipeline is proposed, and the stream in Cathedral Hollow, just south of Miracle Ridge both sink in several locations. Both of these streams recieve runoff from Miracle Ridge. The north stream is at the base of the average 66% north slope coming off Miracle Ridge, and the south

stream is at the base of the 39% south slope coming off of Miracle Ridge. Both of these streams recieve large amounts of runoff from Miracle Ridge. The inspections also show that there are 7 springs in proximity to the proposed pipeline construction area on Miracle Ridge. Five of them are north of Miracle Ridge and these are all within about 200 feet of the proposed construction area, and two of them are south of Miracle Ridge, and within 500 feet of the proposed construction area.

Given the sinking streams, numerous springs, karst terrain at this location, and plans to place very large amounts of spoil on the very steep north sideslope directly above this area, how will the ACP prevent groundwater aquifer pollution at this location, and how will the numerous downgrade drinking water wells, drinking water springs, and springs that are currently not being used for drinking water, but could be used for that purpose in the future, be protected from pollution runoff from the construction site?

Since this is a karst area, the ACP will be required to implement the stated blasting plan for karst areas involving minimal blasting charges. The stated reason for this protocol is to minimize the likelihood of the blasts collapsing the limestone water carrying channels, and reducing, or completely cutting off water to downgrade drinking water wells, drinking water springs, and springs that are currently not being used for drinking water, but could be in the future. As you may know there is no public water within 15 miles of this area.

How will the ACP carry out this minimal blasting charge plan when such extensive blasting would be required over a wide area through about 3,000 feet of our property?

How will sediment be kept out of this waterway in Cathedral Hollow, which is adjacent to, and south of Miracle Ridge, and the waterway to the north of Miracle Ridge, where pipeline placement is currently proposed?

At a minimum, there should be a dye study conducted for these sinking streams to show the extent of the underground aquifer and impacted downgrade wells and springs. Nevertheless, the proposed path of the pipeline should also be moved away from this location.

The Pipeline Cannot Be Constructed On The Limpert Property

The two previous sections demonstrate that the ACP cannot be safely constructed on Miracle Ridge through the Limpert property. The ridge and sideslopes are much too steep, and attempting to excavate and place fill earth and rock on these steep slopes would result in very high landslide and soil loss potential that may jeopardize the safety of the pipe itself. The very steep unstable placement of rock and soil along the South side of the work area would require a retaining wall around 3,000 feet long through the entire property.

The presence of sinking streams and karst terrain on both sides of Miracle Ridge would make it very difficult to keep sediment and pollution from construction practices out of the groundwater that feeds wells, and the numerous drinking water springs, and other springs that could be used as drinking water springs in Little Valley. As I have previously stated, there is no public water in Little Valley. The nearest public water is 15 miles away.

The fact that the minimal blasting charges shown in the blasting plan for karst areas would be required would make the attempt very costly and time consuming.

As I have also previously stated the rest of the Limpert property is a series of steep narrow ridges coming off of Jack Mountain with streams in the hollows between the ridges. These ridges are as steep and narrow as Miracle Ridge. The hollows end in very steep scree slopes of 80% near the summit of Jack Mountain. The same limiting factors stated above for Miracle Ridge would apply to these areas as well.

None of the terrain on the Limpert property is suitable for placement of the ACP, and it should not be constructed there.

I repeat my intent to take legal action against the ACP, FERC, and any appropriate individual working for the ACP or FERC for any injuries that my wife and I may sustain in a pipeline accident, any damage to our property from a pipeline accident, and to advise my next of kin to do the same should my wife and I die in a pipeline accident. I will also take legal action against the ACP, FERC, and any appropriate individual working for the ACP and FERC should our water supply or any springs on our property be polluted, diminished, or cessated as a result of ACP construction, operation, and maintenance.

Detailed Site Specific Grading Plans Must Be Submitted And Approved

FERC should require submission and approval of site specific grading and erosion and sediment control plans for this project. It is very rare that a county, state, or federal highway is constructed on slopes greater than even 10%. All of the construction plans for these roadways show site specific detailed grading plans, with cut and fill slopes and quantities clearly defined. These plans are essential for the integrity and safety of the roadway. The ACP is proposed to traverse slopes of 60% and greater, with sideslopes at 78% and perhaps greater in some areas. The ACP has the explosive capacity of our military's largest conventional bombs, and according to several industry experts, the explosive capacity of the atomic bombs dropped on Japan in World War II. It is absolutely essential that construction of this pipeline be done with care and with safe construction techniques. A big part of that requires site specific grading plans.

Pipeline safety is not the only reason to require site specific grading plans for this project. This project is routed through many miles of high landslide potential. In fact, it is routed through areas where large landslides have already occurred, including Little Valley, and our property. Landslides occurred on a Dominion pipeline project on steep slopes in West Virginia several years ago. Section 4.1.4.2 of the DEIS cites a number of studies showing high landslide potential from placing fill on steep slopes, and reviews the extensive landslide prone areas in Western Virginia and West Virginia. Site specific detailed plans are essential to avoid landslides

Soil erosion from the steep, unstable slopes involved in this project could easily pollute local streams, damage aquatic life, and travel for significant distances downstream. Soil loss to channels could also fill those channels with sediment, reduce the channel carrying capacity, and contribute to greater flooding in the future, especially considering the reliable predictions of increased intensity storm events in the future.Sire specific detailed plans are essential to avoid massive sediment loss to our streams.

The United States Forest Service (USFS) has requested these detailed grading plans from the ACP on at least three separate occasions, and the ACP has failed to produce them. The USFS

shares my concerns in this regard, and detailed site specific grading plans should be submitted to them as well as FERC.

Finally, the pipeline is proposed to traverse a number of high, steep ridgetops for many miles. These ridgetops would present the same construction challenges that I have demonstrated for Miracle Ridge. Besides disfiguring these ridgetops permanently, and causing loss of scenic values, for many persons for many miles around these ridges, there would be no suitable location to place the spoil material. The ridges are too narrow and steep. The fill material could not be stabilized on those slopes, and would erode or fall down the steep mountainsides to the properties and waterways below. Site specific detailed grading plans for these areas would be essential to determine if placement of the pipeline along these ridgetops would even be feasible given the difficult working conditions.

Property Values

FERC states in the DEIS that based on literature reviews and discussions with real estate appraisers, they conclude that the ACP and the SHP would not result in decreased property values. This conclusion is blatantly untrue. It was based on false and incomplete information. FERC subjects over 2,700 directly impacted property owners, and tens of thousands of property owners in the blast zone, the evacuation zone, the viewshed of the pipeline, and near the appurtenant above ground facilities to massive property value losses with this invalid conclusion. FERC must withdraw this conclusion, and conduct further study of this matter.

FERC's research is flawed, and does not accurately reflect the impacts that the ACP would have on property values in most areas. No consultations or discussions with real estate professionals were completed for the areas that would be impacted by the ACP, despite my earlier comments urging FERC to do just that. No specific independent studies of the impacts that the ACP would have on property values were completed despite my earlier comments urging FERC to do that as well. Many of these studies compared properties close to a pipeline with other properties that were close to the same pipeline. The studies that were reviewed do not reflect the rural nature of the vast majority of the properties that would be impacted by the ACP. Many of the studies that were reviewed were commissioned by the oil and gas industry, and are biased to that industry's ongoing propaganda campaign that gas pipelines do not reduce property values. Finally, none of the pipelines in these studies was as large, or had the extreme explosive potential of the ACP. Numerous other non industry studies that FERC does not mention show that property value losses from natural gas pipelines would be substantial.

FERC's obvious pro industry and anti citizen decision to choose only specific studies that claim no property value losses, while ignoring studies that clearly demonstrate property value losses is unconscionable, and leaves FERC open to legal action. FERC's failure to conduct an independent study for the ACP, and failure to consult with real estate professionals in the areas impacted by the ACP does so as well. Additionally, FERC's comment that in a few cases where property values would be negatively impacted the property owners would be fairly compensated by the ACP or through legal proceedings is also incorrect, and I will demonstrate that.

I will comment on the studies that FERC mentions in their DEIS, and point out their flawed methodology.

FERC cites a Western Washington University study by Hanson and Benson that concluded that a 1999 pipeline explosion lowered values $13,000 immediately after the accident, but after time those values returned to pre explosion values. The study showed that prices were lowered more on properties that were closer to the pipeline. This study is not pertinent to the ACP impact on property values for several reasons. The incident occurred in an urban area, and not in the typical rural area that the ACP would cross. This was a 19 inch gasoline pipeline. Gasoline is not as explosive as natural gas, and this explosion would not compare to the catastrophic explosion that could occur from the 42 inch ACP. This study found that only 40% of the residents who lived near the pipeline knew that the pipeline was nearby, and 55% of residents who lived near the pipeline flatly denied that they were close to the pipeline. Prospective buyers will know if the property they are considering is close to the ACP. A real estate agent here in Bath County has told me the first question he is asked by persons looking for property is how close is the proposed ACP. Additionally, today's information technology facilitates large amounts of information available to most people, and gas pipeline explosions are more well known today than in 1999. This would reduce the potential for prospective buyers to forget, or not be aware of pipeline explosions. This study is not pertinent to the ACP.

The cited 2001 INGAA study by Allen, Williford, and Seale is flawed as well. It was commissioned by the oil and gas industry, with likely bias toward that industry's ongoing position that gas pipelines do not reduce property values. The study claims that 4 different areas were researched and that two were suburban, one was commercial, and one was rural. None of these areas was rural. The stated rural area of Katy, Texas is a residential community just west of Houston. The study indicates that it is one of the largest developments in the Houston metropolitan area, and the map provided shows it to be a dense area of homes. All of these studies compared property values for properties that were all close to pipelines. This is not an accurate measure of property value. The study states that lawsuits that awarded property owners compensation for not being advised that a gas pipeline was on or near the property were later overturned by appellate courts, but provided no specific cases to support that claim. This study is not pertinent to the ACP.

FERC cites a Medford Oregon study, but this was only a 12 inch gas pipeline, and was primarily in urban and suburban locations. This study is not pertinent to the ACP

FERC also cites a Las Colinas 24 inch pipeline through a commercial area. This study is not pertinent to the ACP.

FERC cited studies commissioned by natural gas companies for the Palomar Gas Transmission line and the Oregon LNG project for a natural gas pipeline that was constructed along the western edge of Portland, Oregon. These studies likely reflect industry bias and were primarily in urban and suburban settings. This study is not pertinent to the ACP.

FERC cites a study by Dilin et al in 2011 researching effects of pipelines on residential properties in AZ, all in dense residential areas. This study is not pertinent to the ACP.

FERC goes on to cite another INGAA study carried out once again by Allen, Williford, and Seale for the Williams gas pipeline in the Saddle Ridge development in Luzerne County, PA. Once again, this study compared units all in proximity to the pipeline in the same suburban subdivision. This study is not pertinent to the ACP.

FERC states that their previous analysis of Constitution Pipeline and Wright Interconnect

projects was based on appraisers' information.They stated that they contacted several appraisers about potential impacts to property values due to the presence of the pipeline, however, only one appraiser provided information. This single appraiser stated that empirical evidence indicates no difference in property value attributable to the existence of the pipeline easement, and he was not aware of other appraisers making adjustments due to pipelines. Then he went on to state that many other variables make it difficult to determine the incremental effect that any one variable may have on property values. He further stated that perceived safety issues or land use restrictions could reduce the number of potential buyers, and extend the number of days that properties in proximity to the pipeline are on the market. These comments were made by a single appraiser, and included an admission of uncertainty, along with negative impacts due to pipeline proximity. These comments are not pertinent to the ACP.

FERC cites yet another INGAA study conducted in 2016 in Ohio, New Jersey, Pennsylvania, and Mississippi for single family homes and townhouses. This once again compared properties in urban and suburban settings that were in the same subdivision, and all close to pipelines. This study is not pertinent to the ACP.

None of these studies is pertinent to the ACP, and none of them should be used by FERC to conclude that the ACP would result in decreased property values. I believe that FERC intentionally selected these studies to back the industry's claims of no negative impacts to property values.

I searched "Gas Pipeline Property Values" on my computer. The first 24 sites that were listed showed 12 that were sponsored by the oil and gas industry, and the other 12 were not. Every site sponsored by the oil and gas industry claimed that gas pipelines have no impact on property values. Every site that was not sponsored by the oil and gas industry showed that proximity to a natural gas pipeline would lower property values. This demonstrates the oil and gas industry's ongoing misinformation campaign regarding this issue. It also points out FERC's bias toward the industry by choosing studies that back the industry's position.

A number of studies that I found that show that proximity to natural gas pipelines lowers property values are shown below.

The Forensic Appraisal Group, a Wisconsin based pipeline and power line valuation company found property value losses of up to 30%, depending on the scope of the impact to the property. For instance, an impact far from a home would lower property value less than an impact close to a home. An impact that reduced the ability to subdivide the property, or use the property in the same way as prior to the pipeline would also further reduce the property value. The Forensic Appraisal Group also pointed out that any break in the pipe or explosion would be catastrophic. Since valves on pipelines are far apart the volume of gas that would be exposed in a pipeline break and the resultant explosion is much greater than any other type of transportation.

The Lebanon, Pennsylvania Daily News found that gas pipelines can reduce property values 5% to 40%. This information was obtained from Lebanon County real estate agents.The article criticized FERC for stating that there was no consistent information that natural gas pipelines reduce property values in FERC's review of the Constitution Pipeline.

A Roanoke Times Article stated that Conversations For Responsible Economic Development

found that a Pepco Pipeline In MD lowered impacted properties by 11%. They also reported that the BP Inland Corporation Pipeline in Ohio lowered values 25%

Three separate cases heard by the Texas Supreme Court recently upheld lower court rulings for significant compensation to new property owners who were not advised that a gas pipeline ran through the property prior to purchasing the property. They found that land outside of the easement itself lost significant value.

Similarly, in 2014 the State of California Court of Appeals awarded the Gaviota Holding LLC $1.51 million for a decline in property value after existence of a gas pipeline was not disclosed prior to Gaviota purchasing the property.

A provision in Fannie Mae and Freddie Mac mortgage agreements prohibits properties from storage or release of hazardous substances or industrial activities. This could make it difficult to obtain a mortgage through Fannie Mae or Freddie Mac for a property impacted by a pipeline. Additionally, many banks are afraid of liabilities associated with gas pipelines, and are reluctant to finance loans for properties with pipelines. The USAA Financial Services Company found that a pipeline impacting a property would change that property's insurance category from residential to commercial.

The Key-Log study of the impacts the pipeline would have on the economies of Buckingham, Nelson, Augusta, and Highland counties finds property value losses.

The comparison of land and home prices in the Wintergreen area of Nelson County submitted to FERC by Pamela Farnham in DEIS comments before and after the ACP was announced, and that price comparison to other parts of Virginia during the same time period shows the negative impact the ACP is already having on properties close to the proposed route.

Our leading real estate agent in Bath County has stated that properties directly impacted by the Atlantic Coast Pipeline will lose at least 50% of their value. Another real estate agent has stated that the first question he gets from prospective buyers is "Where is the pipeline going?" An acquaintance in Bath County listed his home and property for sale several days before the Alternate Route GWNF-6 was announced for the ACP. That route would impact a neighboring property. He has had no inquiries whatsoever for his home and property, and it has been over year since it went on the market. Another couple in eastern Bath County who would be directly impacted by the pipeline have been trying to sell off parts of their property to pay legal fees involved in trying to stop the pipeline, and they have had no offers whatsoever.

Our property would be directly impacted. The pipeline would cut our property in half. We would lose at least $300,000 in property value. The ACP has offered us less than $33,000 for an easement through our property. We will not sell an easement no matter what the offer. So, we would incur a $267,000 loss. I am retired, and 70 years old. My wife and I cannot afford to sustain a $267,000 loss. So it crossed my mind to possibly get back in the work force to try and recoup that loss. But even if I could find a job that paid what I was earning when I retired, and I put all of my earnings toward recouping the property value loss, and did not spend my earnings on anything else, it would take me over 5 years, until age 75 to do so. If I found a job at $15 per hour, it would take me 12 years, until age 82 to recoup the loss. At minimum wage of $7.50 per hour, it would take me 24 years…age 94.

We would not be able stay in our retirement home if the pipeline is built as proposed. We

would have to abandon it. We cannot live next to a dangerous pipeline, or see the destruction it would bring to our property and our most beautiful part of the world. We would have to try and sell it. Rural homes and property generally do not sell quickly. Our home would be even less likely to sell with the pipeline running through it. We would be left with a toxic asset at half its former value, and one that we would still have to maintain with heat, property maintenance, taxes, and other typical expenses of home ownership, all while be exiled from our home and property. We would actually be better off if our home burned down, or was destroyed in a tornado. At least we would get the insurance money for it, and that would be more than we could get with the pipeline on the property.

FERC's states in the DEIS that in the rare cases where property owners would have their property values reduced by the ACP they would be fairly compensated is also untrue.

Only properties directly impacted by the pipeline and it's associated structures would be offered any compensation for their property loss. These directly impacted owners would be offered a settlement amount for their property that is well below the total property value loss that would occur. The offer is only for an easement for the right of way through their property, and does not cover the full loss of property value, which in our area could be 50% or more.

Property owners who refused the inadequate compensation would have their property taken from them by eminent domain. These property owners do not even have the right to choose which eminent domain court would hear their case. Only the ACP has that choice under the law. Virginia law is much more favorable to property owners than federal law in eminent domain cases. The ACP has stated that they will take these cases to federal courts, where they will benefit at the expense of the property owners. Finally, there are significant attorney fees involved, and generally those fees would be 1/3 of the difference between what the ACP offers and the final verdict. So, it's possible to receive more than the ACP offer, but only if your attorney can prevail over the ACP attorneys, and that outcome is questionable given the ACP's experienced and highly paid attorneys. Even if the verdict is favorable to you, you still don't recoup your full property value loss, because a large part of the verdict goes to your attorney fees, and the verdict may not cover your true losses.

Property owners not directly impacted by the pipeline or it's structures, but are still affected by the pipeline would not be offered any compensation whatsoever. They would have their property values diminished substantially if they are in the blast zone or the evacuation zone, near a compressor station, valve station, industrial access road, or in the diminished viewshed of the pipeline. The blast zone for most of this pipeline is 2,200 feet wide, and the size of the entire blast zone for the 600 mile pipeline is close to 240 square miles. The evacuation zone for the ACP is 1.4 miles wide, and the size of the entire evacuation zone is close to 800 square miles, or about 2/3 the size of Rhode Island. There are 3 large compressor stations, valve stations every 15 miles, hundreds of miles of large industrial access roads, and countless beautiful vistas that would be destroyed. Many, many property owners would receive no compensation for their loss.

I believe that the small amount that the ACP would pay for taking private property is a major incentive for them to take the private property, instead of collocating with other utility or transportation rights of way. Collocation would involve some costs as well, but very likely those costs would be more than the $55 million that Dominion is offering private property owners. Paying for a small portion of a property, while significantly lowering the value of the entire property, and other nearby properties is not fair. The ACP should be required to pay full

appraised value for any property they take, plus additional compensation for forcibly taking private property, and compensate nearby properties, and properties with diminished scenic views for their lost value as well.

I would like to comment again on property value losses that have already occurred, and will continue into the future if the pipeline is approved. I earlier estimated total property value losses for the project at $840 million in my filing of May 31, 2016. Since then I have learned that a little over 2,700 properties will be directly impacted by the project. My original estimate of impacted properties was 4,800. I have also realized that I made a calculation error in my earlier submittal. Nevertheless, I believe my original estimate is reliable, property values losses would be very high, and an explanation follows.

Here are the variables and calculations I used in my original estimate:

- 8 properties directly impacted per mile with 25% property value loss
- 8 additional properties per mile not directly impacted, but within the 2,200 foot blast zone with 15% property value loss
- 20 additional properties per mile out of the blast zone, but within the 1.4 mile evacuation zone with 10% property value loss
- Average property value $250,000

So that comes to:

- 4,800 properties directly impacted
- 4,800 other properties in the blast zone
- 12,000 other properties in the evacuation zone

Total property value without the pipeline:

- $1.2 billion
- $1.2 billion
- $3.0 billion

Total property value loss with the pipeline:

- $300 million
- $240 million
- $300 million

Total property value loss = $840

Correcting for the earlier calculation error, the total property value loss for properties in the blast zone should have been $180 million…not $240 million. This would make the total property value loss $780 million…not $840 million.

I have also learned that fewer properties than I earlier estimated will be directly impacted. Nevertheless, that doesn't lower the total estimated property value loss. Fewer properties impacted indicates that the properties that are impacted are larger in size than previously estimated. So instead of an average of 8 properties per mile being impacted there are 4.5 properties per mile impacted. This equates to an average length of the pipeline through each

property at 1,173 feet. That's a big property. In fact, a property that is in the shape of a square 1,173 feet by 1,173 feet is over 28 acres in size. That's the average size of a property directly impacted by the pipeline. I used an average property value of $250,000 in my earlier computations. A property of 28 acres in size with even a modest home on it is worth much more than $250,000, so my earlier estimate of the value of each impacted property was likely low, because it was based on a smaller sized property. The same size estimates and property values would apply to properties in the blast zone, and in the evacuation zone. In summary, there are fewer properties impacted, but they are more valuable than the earlier estimate.

Further, my earlier estimate did not take into account hundreds of miles of access roads, and resultant property value losses. In our area of Western Virginia there are as many miles of access roads as there are of pipeline. These access roads directly impact many properties that are not impacted by the pipeline. In fact, with around 300 miles of access roads I estimate that over 1,000 additional properties are directly impacted by an access road. A wide industrial access road through a property which is used by very heavy equipment both during construction of the pipeline, and for maintenance or emergency response on the pipeline after construction would reduce property values significantly.

Additionally, my earlier estimate did not take into account other structures related to the pipeline that would likely reduce property values even more than the pipeline itself. These include compressor stations, above ground valves, microwave towers, storage yards, and water impoundment areas. These structures would further reduce property values.

Finally, my earlier estimate I did not take into account other factors that lower property values. I did not take into account properties whose scenic value is diminished due to the pipeline. Certainly in all areas, and particularly in rural areas, a scenic view adds to the property value. Take away that scenic view for a view of the pipeline going up the side of a mountain, or worse yet, cutting off the top of a mountain as is proposed for eleven separate mountains visible for great distances in Western Virginia and West Virginia, and the property value drops significantly.

So, I am confident that my earlier estimate of $840 million in total property value losses from the pipeline is reasonably close to the true property value loss. In fact, it could be low. Given the additional loss factors mentioned here, the total property value loss could easily reach $1 billion and more.

We had previously learned that the ACP was offering $7,000 per acre in compensation for their right-of-way through properties in Western Virginia. Actually, they only offered us a little over $4,000 per acre. But even at $7,000 per acre they would pay only about $55 million to property owners along the entire route of the ACP. So property owners would lose close to $1 billion and the ACP would pay only $55 million. That's anything but fair, and FERC knows it.

There is no question whatsoever that the ACP will significantly reduce property values for tens of thousands of people. FERC's assertion in the DEIS that it will not reduce property values is wrong, and is not backed by any credible information. It is a slap in the face to the tens of thousands of property owners whose properties would lose significant value (and have already lost significant value) if the pipeline is constructed as proposed. It also leaves FERC open to legal action for that blatantly biased and fundamentally incorrect statement.

FERC must conduct an objective study of impacts to property values from the ACP, and factor

that into their decision making process.

Visual Impacts

I have commented about the loss of scenic values that would occur if the ACP is placed through Western Virginia and West Virginia as currently proposed in earlier comments, and at length in my comments of November 14, 2016. Please review those comments in conjunction with these current comments. Constructing the ACP as currently proposed would violate the Natural Gas Act 18 C.F.R. 380.15. Legal action against FERC, Atlantic, and those individuals who have violated this law should the project be constructed as currently proposed could certainly occur.

The Appalachians are a series of scenic high narrow forested ridges running generally southwest to northeast through large parts of Virginia, West Virginia and other states. The ACP would cut through all of those ridges. In many cases the ACP would cut a 150 foot notch through a number of these ridgetops, leaving an ugly visible cut at the ridgetop, and the same width scar running up and down the forested slopes of the mountains. However, on at least 12 of these high mountain ridges the ACP would not only cross the mountain, it would conduct mountaintop removal running along the top ridge of the mountain for great distances, denuding, flattening, and actually physically lowering the highest and most scenic ridges. What was a beautiful rolling forested mountain ridge on the horizon would become a sterile, barren, flat eyesore.

One of the ridges that would be flattened is Little Mountain, which is the western border of our Little Valley. It would be denuded and flattened for 0.7 miles. Another is Back Creek Mountain just west of Scenic Route 220. In fact, from Scenic Route 220 which runs down the Jackson River Valley (The Jackson River is the headwaters of the James River) both Little Mountain to the East and Back Creek Mountain to the West would be visible, flattened and bare. Please note that there is another Little Mountain in Highland County, Virginia that would also be leveled in this manner, and residents and motorists along route 84 and the Mill Gap area would see this Little Mountain and Back Creek Mountain denuded and flattened at the same time as well. This same scenario would be repeated from Buckingham County through all of Western Virginia and West Virginia.

The Natural Gas Act 18 C.F.R.380.15 requires that natural gas pipelines avoid or minimize impacts to scenic areas. The ACP as proposed would not comply with either of these requirements of federal law. The ACP could avoid this scenic area by using the Interstate 79 and Interstate 64 transportation corridors, collocating with other pipelines, or by using other available routes. It could also minimize scenic impacts through this area by following a number of electric utility rights of way that are already in place. But the ACP and FERC have refused these alternatives, despite valid and well thought out arguments for them to do so.

FERC's Draft Environmental Impact Statement (DEIS) erroneously and purposefully ignores this obvious premeditated violation of the law.

In what might be one of the most outlandish statements ever by a federal agency, FERC states that these denuded, flattened, and cut off ridges would not be visible for those looking at them from a lower elevation. We see these ridges all of the time. All of the tourists who come to our area do as well. That's why they come to our area, and provide 60% of our local economy. From Scenic Route 220, at 2,200 feet elevation, the top of Little Mountain at 3,200 feet

elevation is clearly visible about a mile away, and it is visible for many miles along that scenic highway.

Here's an easy way to tell just how absurd the FERC statement is. FERC employees can conveniently do this in their office space, since you have refused to come to our area and see for yourselves. Stand about 10 or 11 feet away from a wall in your home or office and look at the where that wall meets the ceiling. If your ceiling is the standard 8 feet high that's the same angle as looking at the top of Little Mountain from Scenic Route 220. The line where the wall meets the ceiling is clearly visible, as is the top of Little Mountain. All of the other mountains that would be cut off would be visible from the surrounding area as well. In fact, since these are the highest ridges, they would be visible not from just one or two locations. They would be visible from great distances. So FERC's lame argument is way off base. This is the same argument that the ACP has used in their application filings, and FERC has basically copied and pasted it into their DEIS.

FERC goes on to argue that these scenic areas are remote and not seen by many people. FERC is wrong again. This is not a remote backwoods community. It's an area that is beloved by residents and tourists alike. In fact, during the first two weekends in March tens of thousands of tourists arrive each year for our annual Maple Festival. These tourists come because of the beautiful scenery. Our local Bolar Ruritan Club served over 800 breakfasts in only one day during Maple Festival this year. Little Mountain is clearly visible from the Bolar Ruritan Club. Scarring our landscape by cutting off the top of Little Mountain and others would certainly dissuade these people from coming to our area in future years. Many, many more tourists come to our area as the spring, summer, and fall tourist seasons follow.

The DEIS shows an average daily traffic count of 2,400 for Scenic Route 220 in Bath County. The view of flattened and denuded Little Mountain to the East and flattened and denuded Back Creek Mountain to the West would be fully visible for long distances by all motorists on this scenic highway. Residents of this area will experience this loss of scenic values every day. In comparison, according to Virginia Department of Transportation statistics, the Blue Ridge Parkway at the proposed ACP crossing location has an average daily traffic count of only 1,200, just half of Scenic Route 220. Yet, the ACP is proposed to tunnel under the Blue Ridge Parkway in a risky and expensive operation to avoid loss of scenic values to those motorists on the Parkway. Even if the ACP were to directly cross the Parkway, the impact to scenic values would be much less than along Scenic Route 220. Since the Parkway runs along the top of the Blue Ridge, motorists would only see the pipeline as they are crossing it, and then only if it crosses in a wooded area. If it crosses in a meadow that area would be restored to original condition, and present no impact to scenic values within a year or two after construction. The pipeline coming up and down the steep sides of the Blue Ridge would not be visible to motorists in most cases, since the sides of the mountain are not visible from the Parkway.

Furthermore, no one lives on the Blue Ridge Parkway, and therefore, no one would experience the loss of scenic values on a daily basis the way those of us living in Western Virginia and West Virginia would. Many of us who live here do so because of the natural beauty of this area. Those of us who have chosen to live in this beautiful area who would have the pipeline directly impact their property, would endure the loss of scenic values up close and personal, each and every day, and for the rest of our lives. Our view from our front porch…devastated. The forest that we walk through to find peace and tranquility…gone forever. The spiritual uplifting from living in harmony with nature on our own property…ripped away.

FERC further fouls its argument about why it is okay to violate the law and chop up our area by saying that the areas along which the ACP will be built have already been disturbed my mankind for 15,000 years, so additional disturbance is insignificant. I defy any one from FERC to come here, look at these mountains, and say that to my face. How dare you make that statement. These wooded mountains look the same as they have since the last ice age, green, verdant, and beautiful. I have asked FERC to come look at these mountains and they have refused to do so. When a number FERC employees were in nearby Hot Springs for a scoping meeting earlier this year we asked them to simply drive back to Washington by using Scenic Route 220, and they refused to do so as well.

FERC advises in the DEIS that they recommend that the permanent right of way for the ACP should be reduced from 75 feet in width to 50 feet in width. Even if the ACP agrees to this reduction in the permanent right of way the project would still violate the Natural Gas Act. Any clearcutting for a right of way through our forested mountains would be visible as a loss of scenic values for decades at a minimum, and in many cases for a lifetime, as new trees slowly grow where mature trees were removed. A 50 foot cut wouldn't be much different visually than a 75 foot cut. This would not minimize the loss of scenic values. Furthermore, in many locations in our steep mountainous area the temporary right of way would be increased by 25 foot to provide additional workspace, leaving a 150 foot cut, rather than a 125 foot cut, further exacerbating the loss of scenic values.

Finally, for cumulative scenic value impacts FERC uses a 0.5 mile limit. This is much to small of a distance considering the long range viewsheds in Western Virginia and West Virginia. Viewsheds in these areas can easily exceed 20 miles. This is especially true with the mountaintop excavation and flattening that is planned on a large number of high ridges visible for great distances in this area. This 0.5 mile limit would eliminate the large loss of scenic values from the excavation and flattening of the top of Little Mountain to the east of Scenic Route 220. Loss of scenic values from the pipeline would be visible from very large distances, and cumulative impacts must be considered over a distance of 20 miles.

These scenic mountains are icons for those of us who live here, and all of those who come to visit us. We love them. They are our Washington Monument, our Capitol Building, and our Twin Towers. Tearing them apart would not only tear us apart…it would break the law.

FERC has failed to adequately address the loss of scenic values that this project would bring to many people. FERC must reassess their incorrect conclusions regarding impacts to scenic values, and rewrite the DEIS to properly address them.

Socioeconomic Concerns

The DEIS is incorrect in most of the statements it makes regarding socioeconomic concerns.

As I have previously shown, property values for those properties directly impacted by the pipeline, access roads, valves, and other permanent or temporary structures, properties in the very large blast and evacuation zones, and properties that would have the pipeline or associated structures in their viewsheds would lose property value. For the entire project this loss of property value could approach $1 billion. This loss of property value would also result in loss of tax revenue for the communities damaged by the pipeline. FERC's conclusion of no

property value losses is one of the worst statements I have ever heard from a government agency, and it is wrong.

The statement that no environmental justice communities would be adversely impacted is also blatantly incorrect. The following information shows that the pipeline would overwhelmingly, disproportionally, and permanently impact low income communities in many ways. A minority and low income community in Buckingham County, Virginia would also be very adversely impacted as well.

All 14 of the counties and municipalities in Virginia in the study area have per capita income rates below the state average. All 8 North Carolina counties do as well. All but one of the 5 West Virginia counties did as well, with one county exceeding the state average by only several hundred dollars per year. With very few exceptions, the areas where the ACP is routed are less affluent than other areas where the ACP could have been routed. This is no coincidence. In fact, the random chance of all of the above counties and municipalities being impacted instead of more affluent areas is less than 1 in 67,000,000. So, this is not a random occurrence.

The DEIS compares the prevalence of persons below the poverty level in census tracts within a 1 mile radius of the proposed ACP to the prevalence of persons below the poverty level in the state as a whole. For Virginia 54.0% of the census tracts near the ACP have a higher percentage of people below the poverty level compared to 11.5% for the state as a whole. For West Virginia 36.4% of the census tracts near the ACP have a higher percentage of people below the poverty level compared to 18.1% for the state as a whole. For North Carolina 64.3% of the census tracts near the ACP have a higher percentage of people below the poverty level compared to 17.6% for the state as a whole. So for Virginia it's 5 times greater than the state average. For West Virginia it's 2 times greater than the state average. For North Carolina it's about 4 times higher than the state average. These facts show that an overwhelmingly greater proportion of low income persons would be impacted by the ACP.

I wish to point out that I believe that this information was manipulated in the DEIS to make it hard to find. The state averages were expressed as percentages, but the census tracts in proximity to the pipeline were expressed in fractions. I had to convert the fractions to percentages to make a valid comparison. I contend the this was done intentionally to hide the overwhelming number of low income persons that would be impacted by the ACP.

The DEIS states that the ACP would affect a mix of socioeconomic areas, but the facts clearly point out that overwhelmingly lower socioeconomic areas would be mostly impacted.

This is happening because I believe that the ACP has calculated that people in the lower socioeconomic levels are less educated, and have less resources to defend themselves from an unwanted pipeline. Additionally, the ACP can offer to pay them for an easement, and they will be more inclined to do so, since they need the money. The ACP can also offer less for the easement than they would to a more affluent property owner. Finally, the ACP figures that the courts will award a lower amount to these less affluent citizens if their property is taken from them by eminent domain. This is classic predator behavior…prey on those less able to defend themselves.

This is the outcome that environmental justice is supposed to stop. FERC knows this, but once again cherry picks an argument that backs their goal of declaring that there is no wrongdoing

here. We all know there is.

DEIS conclusions regarding no environmental justice violations from this proposed project are incorrect.

Executive Order 12898 requires federal agencies to consider if impacts to human health and social and economic impacts would be disproportionally high for low income populations and appreciably exceed impacts on the general population. They are. As stated above, low income counties and municipalities would be disproportionally impacted. Health and safety of persons in these locations would be disproportionally impacted.

FERC generously pats itself on the back for what it claims is an effective public participation. However, FERC's public participation process does not allow potentially affected community residents to have an appropriate opportunity to participate. As I have previously stated citizens cannot be expected to review over 130,000 pages of filings by the ACP and 2,376 pages in the DEIS, all written in technical terms, understand them, and respond appropriately. In fact, citizens have been under a constant barrage of new information for the duration of this process. Even the DEIS itself is incomplete in that it was written without important information, especially regarding public safety and public health issues.

I see no evidence that the public's contribution has influenced FERC's decision making process. Virtually all of the valid and well researched concerns that citizens have expressed in comments to FERC have been ignored, or whitewashed by FERC.

Likewise, I see no evidence that the concerns of all citizens will be considered in the decision making process. There has been no evidence of this in the DEIS, and I realize that my comments here will likely be discarded as my earlier comments were.

Finally, I see no evidence that FERC decision makers seek out and facilitate the involvement of those potentially affected. FERC should have appointed an individual to facilitate the NEPA process as the law strongly urges them to do, and to help citizens understand this incredibly complicated process, all written in industry and government jargon, but they did not. As I have stated before, FERC's so called public participation process is a smoke and mirrors exercise to evade true public participation, while at the same time seeking to avoid legal defeats.

FERC's incorrect conclusion regarding environmental justice places too much emphasis on minority populations, and not enough emphasis on low income populations. Under the law both of these factors must be considered, and FERC has failed to do that. In general, in Nelson, Augusta, Bath, and Highland Counties in Western Virginia there are few minorities. Nevertheless, these counties are below the state income average as stated above. This factor cannot be ignored, and environmental justice violations to non minority persons who would be impacted by this project in those counties cannot be discounted.

The DEIS states that the primary impacts on these communities would be temporary, but the facts clearly show that the long term impacts of reduced property values, reduced property tax revenues, reduced investment and development in areas near the pipeline, reduced enjoyment of property, deforestation, including loss of old growth forest, loss of scenic values, ongoing safety issues, stress related health impacts, ongoing disruption to property from operation and maintenance of the pipeline, loss of tourism, loss of wildlife habitat, climate change issues, and increased rates for captive Dominion rate payers would all impact lower socioeconomic

citizens for years and years to come.

The DEIS also states that because the project would generally traverse rural areas, the number of persons who would be at risk of injury due to a pipeline failure would be low, and there is no evidence that such risks would be disproportionally born by any racial, ethnic, or socioeconomic group. This statement is blatantly false and also misleading. The statement fails to mention that death could occur. In fact, death is likely in a pipeline explosion for anyone within the 2,200 foot blast zone, and death could occur unless persons quickly escape the 1.4 mile evacuation zone.

Persons in rural areas face a far greater danger from the pipeline than those in urban or suburban areas.

Pipeline safety regulations are much more lax in rural areas than in more populated areas, and therefore, pipeline failure is more likely in rural areas. The federal Pipeline and Hazardous Materials Safety Administration (PHMSA) regulations allow thinner pipe walls in rural areas. Requirements for hydrostatic test pressures, and the distance between sectionalizing valves are all weakened in rural areas. The inspection and testing of welds are reduced. Pipeline inspections and leak surveys are reduced as well in rural areas. Even these PHMSA regulations violate environmental justice criteria, since rural areas are generally less affluent than urban areas.

The risk of a terrorist causing a pipeline explosion is greater in these rural areas, as I have previously stated. There is no security for the pipeline. A terrorist could easily drive to an isolated area, set off an explosive device above the pipeline, and cause a catastrophic explosion.

Emergency rescue services in rural areas are not as fast or well equipped as those in non rural areas, leaving citizens in these areas more at risk. In a number of areas of the proposed pipeline, including our own Little Valley, persons would be trapped with no possible escape during a pipeline explosion. Seven homes in Little Valley would be trapped in the evacuation zone at the head of the valley with no way that they could be rescued. I will comment on this further in this document.

Medical services in rural areas are not as sophisticated as in urban areas. Specialty treatment units, like burn centers, are generally not available in these areas.

The risk of a rapidly spreading forest fire from a pipeline explosion also is present in rural areas where there are more forested areas, and forests on steep, hard to reach mountain slopes where the fire would spread quickly, especially during dry conditions. The fires that occurred earlier this year near Gatlinburg, Tennessee should be a reminder that steep wooded areas can create a firestorm, especially if they are ignited by a gas pipeline explosion.

Finally, the steep landslide prone mountainous terrain and karst conditions with sinkholes and caves in Western Virginia and West Virginia make safe pipeline construction significantly more difficult. Sections of pipe would need to be welded together directly in the pipeline trench, and in some cases on slopes of 60% and more. A person can barely walk on a 60% slope. The ACP's stated plan to construct the pipeline through the extreme winter conditions in the higher elevations of Western Virginia and West Virginia further compromises pipeline safety.

So, the DEIS statement that pipeline risks would be low in rural areas, and would not disproportionately impact lower income areas is a blatant falsehood, and is not born out by the facts.

The Buckingham County compressor station would negatively impact a minority community in the lower socioeconomic range. Many of these citizens are elderly and in bad health. The compressor station would make their lives significantly more difficult, lower their property values, and place a very heavy burden on their community.

The DEIS 4.9.4 states that there will be insignificant temporary impacts to local communities and public services during construction of the ACP, and in fact, local communities will benefit. This statement is incorrect.

The DEIS also states that the ACP will create permanent jobs, but it goes on to state that there will only be 39 permanent jobs created in Virginia as a result of the pipeline. 25 of these positions will be in Richmond, and not in the local communities that are impacted by the pipeline. There will be no permanent jobs created for Nelson, Augusta, Bath, and Highland counties in Western Virginia. I am confident that many more permanent jobs will be lost from pipeline construction than will be gained due to the blight that the pipeline will bring to local communities.

The document states that there are 43 hotels and motels in Bath County and 32 hotels and motels in Highland County. It claims that there will be plenty of accommodations for the estimated 875 out of state workers who will be coming to the area, and these additional workers will not create a shortage of available rooms for tourists.

There are 4 hotels and motels in Bath County. One of them is the Homestead, an expensive luxury hotel and resort. The pipeline is routed away from the Homestead. I doubt that the workers will be staying at the Homestead. This leaves three hotels and motels with a total of no more than 40 rooms. There are 2 hotels and motels in Highland County with a total of around 30 rooms. These are not enough rooms to accommodate the influx of workers to this area. There are several small bed and breakfast locations and small scale room and cottage rentals in the counties, but these would likely not be able to accommodate any more persons than the hotels and motels. These available rooms are primarily used by tourists visiting Bath and Highland Counties, and these tourists would be deprived of accommodations if these rooms are taken by the glut of out of state workers. Tourism comprises 60% of Bath County's economic base, and it would be hurt by the lack of accommodations, the tremendous disruption of the construction process, and the eyesore of the pipeline, the access roads, above ground structures, and ongoing maintenance and operation of the pipeline.

There are 3 moderately priced restaurants in Bath County and 3 in Highland County. There are a few expensive high end restaurants in the Hot springs area, and one in the Warm Springs area in Bath County, but it is doubtful that the workers would be using those facilities. Total seating at the moderate and low priced restaurant is less than 200 persons. These restaurants could not accommodate the estimated 875 out of state workers, and any out of state workers using these restaurants would deprive local residents and tourists from using them.

There is one small grocery store in Bath County and none in Highland County. The influx of out of state workers would cause food shortages that would deprive local customers and tourists as well from being able to purchase food.

There is one hardware store in Highland County and one in Bath County. The influx of out of state workers purchasing needed tools, equipment, and supplies would deprive local residents from purchasing them.

There is one small hospital in Bath County and one small medical center in Highland County. A large influx of construction workers, an occupation that entails a large number of injuries, could overwhelm these facilities. This could leave some workers waiting for medical treatment or unable to receive it. It could leave local residents in the same predicament as well.

Impacts to local businesses would generally be difficult to predict, and business owners would not be able to adequately adjust inventories to match the uncertain demand. At best, there would be a boom and bust cycle which could leave many businesses with an oversupply of inventory that they cannot sell after the temporary out of state workers leave the area. Any business owner, small or large, will tell you that a steady, predictable demand for services and supplies is better than an unpredictable one.

Impacts to local roads from the heavy construction equipment needed for construction of the pipeline would be significant. Additional maintenance and repair above that required by normal use would be required, and it would be expensive. The influx of workers would also create traffic issues for residents commuting to work, and carrying out their daily activities.

The statement in the DEIS that the ACP would limit workers on the roads between 6AM and 6PM is not believable, and is misleading at best. It likely means that only a few of the estimated 875 workers would be kept off the roads during those hours. There is no daylight during large parts of the year prior to 6AM and after 6PM, leaving the workers who are limited from being on the roads apparently working in the dark.

These workers will not be greeted positively in the local community, since opposition to the pipeline is fierce. Disruption in services to residents will only add to the tension. Most of the workers will be young and away from home for long periods of time. The tendency for them to use alcohol in the evenings and weekends will create additional friction, not only among themselves, but especially with residents. The potential for violence would be exacerbated by these conditions. Local law enforcement staff could be stretched thin in reacting to violent incidents, and thereby less able to carry out the community services and help to residents that they usually do.

FERC's DEIS conclusions that local communities will be helped by the temporary influx of a large number of out of state workers is simply untrue. It would be a disruption at best. FERC needs to reassess the impacts to local communities from the influx of temporary out of state workers.

The ACP Should Not Be Constructed in Karst Terrain

Construction of the ACP through karst terrain threatens water supplies, pipeline safety, caves, and rare and endangered species. The DEIS statement that Atlantic's karst mitigation plan would reduce impacts to less than significant status is incorrect. Karst surveys have not been completed in large areas of the proposed ACP. The DEIS coverage of the potential impacts of karst on the ACP is not complete.

Numerous studies have been completed and submitted to FERC that show that it would be dangerous to construct the ACP through karst areas, and would put landowners near the pipeline at risk for losing their wells, drinking water springs, and springs that could be used for drinking water.

Page ES-3 of the DEIS states that construction the ACP through karst areas would limit disturbance to 6 to 8 feet below ground surface, and sensitive groundwater resources and cave systems are generally found at greater depths. This depth of construction is inconsistent with other references to the depth of construction in the DEIS. The minimum depth of the trench for the ACP is 10 feet. The depth of construction is likely to big much greater in sloping land, and much of the area that is karst is located in sloping land. Construction of the ACP on Limpert property could involve excavation to a 29 foot depth on average, and even deeper on the steepest sloped land. The statement that the depth of excavation is too shallow to threaten groundwater sources is false, and should be retracted.

Page ES-4 of the DEIS states that while small, localized, on temporary impacts on karst features, water flow, and water quality could occur, the impacts would be minimized and mitigated through Atlantic's and DTI's plans and recommendations. This statement is incorrect, and should be retracted. Impacts to groundwater from construction in karst are well established, and Atlantic's proposed karst mitigation plan fails to assure negative impacts to groundwater. Minimizing impacts to groundwater is not acceptable. There should be no impacts to groundwater. As I have stated, all property owners in Bath County impacted and near the proposed pipeline rely on private wells and springs for their drinking water. A minimal negative impact to their drinking water is not acceptable.

This same section states that an increase or redirection of overland surface water, removal of vegetative cover, and sudden decrease in the water table could cause the rapid formation of new sinkholes. Construction of the ACP would create all 3 of these conditions, which could create new sinkholes, and result in catastrophic pipeline failure.

Furthermore, the ACP has not accepted any liability whatsoever for replacing or repairing drinking water springs, or springs that could be used for drinking water that would be damaged by the ACP, and their limited liability for damaged wells extends only 500 feet from the construction area, and places the burden of proof on the property owner, rather than the ACP. Homes that have their water polluted, diminished, or cessated that are not covered by Atlantic's very limited statement of liability would have to try to find water on their own. This would be very costly, and would make their property virtually unsellable should they be forced to vacate their home and property. Even homes that have been provided with some type of potable water by the ACP for loss of their water would be greatly reduced in value due to the stigma of their natural water supply being contaminated by the pipeline.

The second paragraph Section 4.1.2.3 of the DEIS does not mention the ACP crossing through karst in Bath County, Virginia. This is incorrect and needs to be corrected. There are numerous areas of karst in Bath County, and most of them have not been surveyed the ACP. Table 4.1.2-2 is therefore incomplete and inaccurate. The DEIS should not have been written without this survey information, and needs to be rewritten if, and when the surveys are completed.

In Little Valley alone I have identified numerous sinkholes within the 0.25 mile karst review area, sinking streams on either side of the proposed pipeline on the Limpert property, and

numerous springs within 500 feet of the proposed construction zone on the Limpert property.

The DEIS states in a number of places that surveys were not completed because of lack of permission from property owners. That statement is incorrect. Owner permission is not required for surveys. The ACP could have easily completed these surveys prior to the issuance of the DEIS. I believe that the ACP intentionally delayed karst surveys in order to have a favorable, if flawed, and incomplete DEIS written.

Page 4-14 states that Little Valley has not been surveyed because landowners have not given permission is incorrect. Whitelaw, Keyser, and Baum in Little Valley all gave permission, and their properties were surveyed in November of 2016, although the ACP chose not to conduct a karst survey at that time. My wife and I did not give permission, but made it clear that surveyors could come onto the property to survey. We even agreed to meet the surveyors on our property in April of 2016, but they did not show up. The ACP chose not do so until January 18, 2017, but even then did not conduct a karst survey, and has advised that a karst survey will not be conducted until later in the spring of 2017.

Figure 4.1.2-2 shows no sinkholes in Little Valley. This is incorrect. There are many, many sinkholes located in Little Valley in the vicinity of the proposed pipeline and both south and north of the proposed pipeline. This information was submitted to FERC well before the issuance of the DEIS, and should have been included.

Figure 4.1.2-2 does not show the route of the pipeline through Highland County, including all of the sinkholes in the Valley Center area.

Page 4-17 states that electrical resistivity surveys, borings, and inspection by a karst specialist will be completed prior to construction. This should be done prior to any vegetation or tree removal (which is part of the construction process) to avoid initial deforestation and then possible re-routing to another location.

The Karst Mitigation Plan is inadequate to provide protection to groundwater, springs, and wells. Comments on the plan follow. These comments are not an endorsement of the plan. Even if these comments were incorporated pipeline construction should not occur in karst areas or within one half mile of a karst area.

- All preconstruction work must be done prior to tree removal
- Geology and engineering staff must pass a scientifically recognized geology test regarding identification and mitigation of karst, and one of these individuals must be at the construction site at all times.
- The preconstruction inspection must be made by a credentialed karst specialist
- Rerouting of the pipe should not be limited to minor reroutes
- Thicker walled pipe as required in urban areas must be used in all karst areas
- Specific measures to keep water from construction influenced water from flowing into karst features should be stated and approved by state approval authority
- The disposal of any materials into karst features should be prohibited
- Maintain a 100 foot natural vegetated buffer around a waterbody or karst feature at all times
- Minimal blasting limited to no more than 2 inches horizontal per second must be implemented in all karst areas, and within 1/2 mile of any karst area
- Prohibit the discharge of hydrostatic test water in karst areas, or areas draining to karst areas.

Page 4-19 of the DEIS incorrectly states 58 and then 52 pipeline incidents in Virginia. One of these figures is incorrect and should be corrected. Either of these figures is too high to be considered safe, especially considering the explosive potential of the ACP, and the severe working conditions making pipeline installation difficult.

Page 4-20 states that many miles of pipeline in Virginia and West Virginia have operated without earth movement in karst sensitive areas without reported earth movement incidents. The DEIS should specify how many miles in karst, and specify the size of the pipelines in discussion.

Page 4-20 states that Atlantic and DTI conservatively determined that the proposed 42 pipe would be able to span a 40 foot unsupported without any sign of deflection or sag. This statement is not supported by PHMSA documentation in the DEIS. It should be. Additionally the thickness of the pipe wall in rural areas should be taken into account in this statement. Further, “any sign of deflection or sag” is a subjective statement that does not indicate that the pipe could fail. FERC should require that PHMSA concur or disagree with this statement in the DEIS, and state whether or not it is at all relevant to pipeline safety. I think it is not.

Page 4-20 implies that because the pipeline would be monitored during operation leaks of methane into the groundwater that could cause an explosion in water casings would be detected. Unless remote monitoring could detect and initiate shut down of the pipeline and repair of the leaks, underground leaks of methane could not be monitored by inspection personnel without excavating the pipeline. The DEIS should provide independent and scientifically accurate background information about how much leakage occurs on comparable pipelines, and report prior incidents where this has occurred.

If the ACP and FERC are so confident that potential impacts to groundwater, including wells, drinking water springs, and springs that could be used for drinking water are so small in karst areas, then the ACP should be required to greatly expand its limit of liability to all wells and spring within 2 miles of the centerline.

Numerous studies, including the William Jones study of Little Valley, have shown that pollutants can travel many miles in karst areas. This study, and a number of other valid studies some of which have been submitted to FERC during earlier comments overwhelmingly indicate that the ACP should not be constructed in karst terrain due to safety concerns, impacts to groundwater, and impacts to endangered species.

These studies include the aforementioned Jones report on Little Valley, and the Lambert assessment of four karst systems that would be impacted by the ACP, the Karst submission to FERC with information regarding karst in Augusta County, the Sullivan Report covering Augusta County, the Robinson report on karst features, wells and springs in Little Valley, a report by the Virginia Cave Board, The Pocahontas County water resources management report, the Giles County Columbia gas pipeline Celanese contamination study, the Edray Fish Hatchery contamination information from the USFS EIS on the extension of the Highland Scenic Highway, and the Groves report and Kastner report on karst impacts on the Mountain Valley Pipeline.

FERC’s dismissal of this valid and relevant information in their assessment of karst impacts leaves large numbers of citizens vulnerable to loss of drinking water resources with no liability

to the ACP. These individuals would also face tremendous property value losses, since loss of water leaves a property virtually worthless. It also leaves large numbers of citizens at risk of a catastrophic pipeline explosion due to pipeline failure from undetected karst features, or new sinkhole formation caused by construction of the pipeline that appears after construction is completed, and the pipeline is operational.

Demand Letter Regarding Springs and Wells In Karst Terrain

The following letter was previously submitted in earlier comments. I am re-submitting it because I find no indication in the DEIS that it was reviewed or acknowledged by FERC staff.

Kimberly D. Bose, Secretary
Federal Energy Regulatory Commission 888 First Street, NE
Washington, DC 20426

Re: Docket No. CP15-554 The Atlantic Coast Pipeline

And

David A. Christian, Chief Executive Officer - Energy Infrastructure Group Dominion Resources
701 East Cary Street
Richmond, VA 23219

October 31, 2016

Ms. Bose and Mr. Christian:

We, the undersigned use either spring water or well water for our drinking water. Public water is not available to us. Our springs and wells are located in karst bedrock per the United States Geological Survey. These springs and wells are within 2 miles of the proposed Atlantic Coast Pipeline. We are very much concerned about contamination, diminution, or cessation of our drinking water from the construction and maintenance of the Atlantic Coast Pipeline should it be constructed as currently proposed.

We believe that the 500 foot testing limit proposed by The Atlantic Coast Pipeline for assessing damages to wells and springs from construction and maintenance of the pipeline, access roads, and supporting structures in karst bedrock is unrealistic, and not based on sound scientific evidence. Sound scientific evidence clearly shows that due to the fragile nature of underground water channels and the interaction between surface waters and groundwaters due to sinking springs and other surface waters in karst soils that springs or wells far from the proposed pipeline are likely to be contaminated, diminished, or stopped completely from construction and maintenance activity, including blasting, the discharge of pollutants, and the spraying of herbicides.
Geological studies confirm that Atlantic's proposed testing limit is not based on sound scientific evidence.

Recent studies completed by William Jones, Rick Lambert, Ernst Kastning, and the Sullivan Report, and Emery and Garrett Groundwater Investigations, LLC, both for Augusta County, all confirm that pollution from pipeline construction and maintenance can travel long distances to

private wells and springs. Studies have shown that pollutants can travel 8 miles and more in karst terrain.They also confirm that blasting for pipeline construction can damage fragile subsurface water passages disrupting or completely stopping water supplies to wells and springs. Additionally, blasting can damage well casings, leaving the well susceptible to contamination.

Therefore, we hereby demand that the Atlantic Coast Pipeline complete comprehensive water quality and water quantity assessments to be carried out by an independent qualified water quality laboratory at all currently used drinking water springs and wells, and all other springs that could be used as drinking water sources within 2 miles of the proposed pipeline in karst terrain. These assessments must be made within one year prior to any construction activity for the pipeline, during the construction of the pipeline, 3 months after construction of the pipeline, and once per year for 5 years following completion of the pipeline, and within 1 month of any herbicide application.

If, at any time following the commencement of construction, should the test results show increased
pollution to a spring or well, or diminution, or cessation of that spring or well that cannot be proven to come from an event or source other than the construction activity or maintenance for the Atlantic Coast Pipeline, then we demand that the Atlantic Coast Pipeline supply continuous clean drinking water in the quantity found during the pre construction testing within 24 hours of the test results, and construct a permanent clean drinking water supply system in the quantity found during the pre construction testing no later than 3 months following the test results unless Atlantic can prove that the damage was the result of some other activity or event.

We also hereby demand that the Atlantic Coast Pipeline develop a mitigation plan that is developed and approved by FERC, the Virginia Department of Conservation and Recreation, and the local board of supervisors in each affected locality should a private well or spring become polluted, diminished, or cessated as a result of construction or maintenance of the Atlantic Coast Pipeline. The plan shall establish the Atlantic Coast Pipeline's financial liability to repair, replace, or remediate any private well, or spring within 2 miles of the pipeline in karst areas. The plan shall also provide for alternative potable water supplies during a water outage. The plan shall require and specify appropriate financial assurances such as escrow accounts, surety bonds, insurance instruments, etc. to ensure that any remediation is completed, and appropriate compensation for property value loss due to a compromised water supply is given, even if the company is no longer solvent.

Sincerely,

William F. Limpert, Little Valley, VA
Lynn S. Limpert, Little Valley, VA
Robbie Koontz, Millboro, VA
Robert Koontz, Millboro, VA
Nancy Miller, Burnsville, VA
Scott Miller, Burnsville, VA
Lee Brauer, Little Valley, VA
Linda Brauer, Little Valley, VA
Ron McLean, Little Valley, VA
Kitty McLean, Little Valley, VA
Dennis Keyser, Little Valley, VA

Joe Gilbert, Little Valley, VA
Lillie Gilbert, Little Valley, VA
Gary Robinson, Little Valley, VA
Jeanette Robinson, Little Valley, VA
Robert Helms, Little Valley, VA
Delores Helms, Little Valley, VA
Dr. Victor Baum, Little Valley, VA
Dr. Lora Baum, Little Valley, VA
Katherine Smith, Little Valley, VA
Anne Bryan, Burnsville, VA
Joseph Murray, Burnsville, VA
Ben Allen, Burnsville, VA
Judy Allen, Burnsville, VA
Elfrieda McDaniel, Burnsville, VA
Trish Darby, Millboro, VA
Wade Neely, Millboro, VA
Elizabeth Neely, Millboro, VA
Sue Reichel, Millboro, VA
Frank Reichel, Millboro, VA
Charlie Alexander, Burnsville, VA
Betty Alexander, Burnsville, VA
Joyce Alexander, Burnsville, VA
Lynn Alexander, Burnsville, VA
Scott Alexander, Burnsville, VA
Kim Alexander, Burnsville, VA
Charles Burke, Burnsville, VA
Jane Burke, Burnsville, VA
Diana Green, Burnsville, VA
Dempsey Hevener, Burnsville, VA
Joseph Murray, Burnsville, VA
Domingo Tan, Burnsville, VA
Jackie Tan, Burnsville, VA
David Cowden, Burnsville, VA
John Cowden, Burnsville, VA
Carol Cowden, Burnsville, VA
Kathleen and Forbes, Millboro, VA
Randy Forbes, Millboro, VA
Ann Williams, Millboro, VA
Ralph Steger, Mints Springs, VA
Phil Knopp, Churchville, VA
Amanda McGuire, Burnsville, VA
Ellen Ford, Millboro Springs, VA
Kent Ford, Millboro Springs, VA
Delbert Simmons, Bolar VA
Margaret Simmons, Bolar, VA
Linda Williams, Middlebrook, VA
Robin Williams, Middlebrook, VA Evangeline Bryant Foster, Lyndhurst, VA Susan Belsky, Stuart's Draft, VA
Daniel Everhart, Lyndhurst, VA Julie Scofield, Staunton, VA
Anita Lewis, Waynesboro, VA Shannon Harrington, Staunton, VA Erin Trzell, Churchville, VA

Andrea Wasiewski, Stuart's Draft, VA Dreama Anderson, Swoope, VA Juliann Corrigan, Swoope, VA
Louis Ravina, Churchville, VA
Yvette Ravina, Churchville, VA

cc: President Barack Obama
Senator Tim Kaine
Senator Mark Warner
Governor Terence McAuliffe
The Virginia Department of Conservation and Recreation The American Civil Liberties Union
The Richmond Times-Dispatch

Geohazards

My comments in this section do not include karst features. Karst features remain geohazards, and are covered in the previous section.

The DEIS does not adequately assess the significant risk to public safety through damage to the pipeline, the potential for landslides, and the potential for resultant water pollution from geohazards, particularly in the steep areas of the proposed pipeline in western portions of Western Virginia and West Virginia. The DEIS was written without needed survey information, studies, and a finalized plan for addressing the significant geohazards that threaten public safety and the environment. DEIS conclusions based on incomplete industry driven data differ significantly with conclusions reached by the United Sates Geological Survey. Plans to locate and repair landslides or potential landslides after construction is completed lack credibility due to the large number of procedures that must all be completed correctly in order for the plan to be effective.

FERC once again blames the public for the ACP's failure to complete surveys in a timely manner. As previously stated, survey access is guaranteed by Virginia law, and property owners do not need to give the ACP permission to survey. Any failure to survey is the ACP's failure, and not the property owners.

The ACP's planned "best in class" team to recommend engineering methods on steep slopes had not been formed prior to issuance of the DEIS, and there is no guarantee that the team will be formed, that they will be qualified, that their recommendations will be valid, or that those recommendations will be carried out.

Landslide potential along the proposed path of the pipeline in Western Virginia and West Virginia is very high. In fact, the DEIS states that 28% of ACP-1 has a high incidence and high susceptibility of landslides, 21% has a moderate incidence and high susceptibility of landslides, and 7% has moderate incidence and moderate susceptibility of landslides. The DEIS specifically mentions Bath County and Highland County as having a high incidence and high susceptibility to landslides, but does not indicate a moderate or low incidence or susceptibility in these two counties, thereby indicating that all sloped areas in these counties are high incidence and high susceptibility. Given the length of the ACP-1 this indicates that virtually the entire western portion of the proposed route is at high or moderate risk or susceptibility of a landslide, and this is prior to construction. Construction of the ACP would increase this risk significantly since the land is less stable and more prone to landslides after it is disturbed by

construction activities. This is especially true for very large scale construction that would be required.

The DEIS goes on to state that the ACP's Geohazard Analysis Program identified slopes that warranted further evaluation based on various slope criteria. Based on this criteria the slope on our property and the slope on the East side of Little Mountain warrant further evaluation. However, that evaluation has not occurred. No geotechnical personnel have come to our property or Little Valley. The ACP also identified slope instability hazard locations along the SHP where evidence suggests previous slope instability, but they apparently did not do so for the ACP, because that is not mentioned. Previous slope instability and significant landslides have occurred on our property and in Little Valley, and we have documented this to FERC in previous comments, yet it is not mentioned in the DEIS. How can I accurately comment on the DEIS if our property, our immediate area, and in fact the entire ACP has not been studied in this manner?

The DEIS states that the BIC Team is considering screening criteria for slopes that would be identified for site specific requirements for construction and restoration. Our property and Little Valley meet all of those criteria, and also meet the criteria for slopes that are potential hazards. Nevertheless, without the screening criteria being finalized, how can I comment on it?

The DEIS mentions that if a slip is discovered during an inspection various methods will be used to control it and prevent debris from sliding off of the right of way or into public waters. Nevertheless, this section does not indicate how frequently these inspections would occur. It does not take into account that landslides, including catastrophic landslides, can occur with no visible signs of the impending catastrophe in advance of the occurrence. It also does not adequately explain that restoration measures may not be enough to contain, control, and prevent a catastrophic landslide, whether or not any sign of a potential landslide is found.

In other words, the plan requires a large number of separate tasks to all be accomplished to avoid a possible landslide, or control an ongoing landslide. 1) An inspection needs to be made 2) The inspector needs to find a landslide or an indication that a landslide is imminent 3) The inspector needs to make the correct diagnosis of the potential for a landslide or an actual landslide 4) The inspector needs to notify a number of other parties 5) These parties would likely have to come to the site to evaluate the priority of the response 6) These parties would have to notify FERC and appropriate state agencies (although the role of these parties is not stated) 7) BMP's would have to be installed to temporarily control the landslide (although these BMP's are not specified) 8) Data would have to be collected and submitted to DTI 9) The data would have to be evaluated 10) A repair technique would have to be found 11) Short term repair measures would have to be installed to stabilize the slope 12) Final repairs would have to be installed and documented.

This plan of action is not sufficient considering the grave consequences of a landslide. There are too many steps, and too many opportunities to miss any of these multiple steps, or act inappropriately on any of these multiple steps. In other words, a large number of procedures all have to be carried out and work at 100% efficiency for these procedures to effectively stop or control a landslide. That's not likely to happen. These steps would be time consuming, and the landslide may continue or occur without all of the steps being completed. There is no guarantee that the ACP will follow through on any of these steps, much less complete them in a satisfactory manner. The best plan of action would be to avoid these hazardous slopes in the first place. The DEIS states that the ACP attempted to avoid slopes over 30%, but it is obvious

that they did not, since alternate routes that contained less hazardous slopes have been routinely rejected with no credible explanation.

Nevertheless, The ACP reports in the DEIS that the Phase 2 geohazard analysis program ground reconnaissance has assigned only 5 specific sites as high potential slope instability hazards, and only 8 as moderate slope instability hazards. Furthermore, no ground reconnaissance has been conducted on or near our property in Little Valley, where extensive landslides occurred during the summer of 2015, as I have previously stated.

The DEIS states that very few slopes along the ACP contain landslides. However, there are numerous large landslides in Little Valley very close to the proposed pipeline that we have documented, photographed, and submitted to FERC. Why are these not mentioned in the DEIS?

The ACP plan to divert surface water away from the pipeline location is not well thought out, and could very well create additional serious issues.

Diversion of water into karst areas has been shown to cause the rapid creation of sinkholes, and this is stated in the DEIS. New sinkhole formation in the area of the pipeline could undermine it, expose it, and cause catastrophic failure. New sinkhole formation could also threaten water supplies, homes, outbuildings, roadways, culverts, and other structures. Much of the proposed path of the ACP in Western Virginia, particularly in Bath, Highland, and Augusta counties is through karst areas with very steep slopes. Diverted water naturally channelizes as it flows downgrade, and this increased concentrated flow entering the karst areas in the valley causes rapid sinkhole formation.

Diversion of water on the steep landslide prone slopes that cover much of the western portion of the ACP could also result in landslides in those areas with catastrophic consequences, not only for the pipeline, but for properties, homes, buildings, and other structures below. It would also result in severe sediment pollution to the receiving stream below. It could also result in trees being uprooted and carried downhill as well as debris and rock, and blocking the receiving stream channel in the valley below. This has already occurred in the floods of July, 2015 in Little Valley, even without manmade diversions in place when trees and boulders entered Little Valley Run due to several large landslides. A large tree carried down the mountain in a landslide blocked the channel adjacent to the home of Lee and Linda Brauer causing floodwaters to come within several feet of their home in the middle of the night. Emergency rescue personnel could not reach them due to flooding blocking the only road into Little Valley, and they were advised to seek higher ground. Boulders from a large landslide on the very steep bank of Little Valley Run blocked the channel below, and caused a permanent relocation of the stream. This landslide occurred several hundred feet above the proposed crossing of the ACP, and the resultant stream boulder blockage occurred several hundred feet downstream of the proposed crossing.

I have commented on documented this flooding and these landslides in Little Valley elsewhere in these comments, and in earlier comments. My comments and photographic evidence of this event are already on file with FERC. Please refer to them as you read my current comments. As stated in the DEIS, and also well known in the scientific community, storm intensity has increased in recent decades, and will continue to increase due to climate change. These extreme weather events and resultant flooding will become more severe and more common. Unnatural manmade diversions of water will only exacerbate a bad situation, and cause more

damage.

Diversion of natural drainage patterns also results in concentrated flows of water to flow to areas that have not received concentrated flow previously, or to areas that have received less flow than previously. The increased force of the concentrated flow causes erosion and soil loss in that area. Erosion sends soil and rock downgrade from that area, and it can fill in drainage channels below, particularly where the slope flattens out, and flow velocities are reduced. This in turn reduces the cross section and the carrying capacity of that channel, which causes more out of channel flow during heavier precipitation events, and resultant erosion of areas outside of the channel. This results in sediment deposition in channels further downstream in an ongoing progression of erosion and flooding issues. I've seen this happen many times during my career as an environmental regulator.

Sediment pollution to receiving waters results in loss of aquatic species as well, and native brook trout in Western Virginia waters would be particularly hard hit, and could very well be lost forever in certain waterways adjacent to, near, and downstream from the project. Other aquatic species would be negatively impacted as well.

The DEIS mentions the slope failures, resultant stream pollution, and consent order for the DTI G-150 pipeline in West Virginia. It states that DTI complied with the consent order, and the ACP will be constructed of modern materials in accordance with law. These statements in no way indicate that similar landslides and water pollution will not occur on this project. The DEIS response in this regard is groundless

Another geohazard that threatens the proposed pipeline and above ground facilities is earthquakes. Section 4.1.4.1 of the DEIS incorrectly dismisses the threat of earthquake damage to the ACP and above ground structures by stating that significant earthquake risk is low, seismic groundfaulting is low, and soil liquefaction risk is low. This dismissal is simplistic, reckless, and places the public at risk. Earthquakes could damage the ACP and result in a catastrophic explosion.

Recent earthquake activity in Virginia indicates that earthquakes occur, they are occurring more frequently, and the impacts of these earthquakes over large areas are more severe and widespread than previously thought. The Mineral, Virginia earthquake damaged major buildings in Washington, DC, more than 100 miles away from the epicenter. It also damaged schools, homes, and other structures closer to the epicenter. The earthquake exceeded levels for which the North Anna nuclear power plant was licensed and damaged nuclear waste storage facilities at that facility. Two earthquakes have occurred in the same general area of Virginia in March, 2017, and one of these was centered close to the proposed Buckingham compressor station for the ACP.

Furthermore, the DEIS fails to mention that fracking has been shown by the USGS to cause earthquakes, and that fracking in Oklahoma and surrounding states has caused more than a one hundred fold increase in earthquakes with substantial damage to homes, businesses, and other structures. A fracking induced earthquake recently occurred in Pennsylvania as well. Industry plans to frack throughout much of Virginia leave the area prone to fracking induced earthquakes, and consequent threats to pipeline integrity, including the integrity of the ACP.

The DEIS is incorrect in stating that the ACP would not pose a significant threat to public safety, public health through drinking water, and pollution to public waters due to geohazards.

Geohazards along the current proposed route are significant and cannot be adequately mitigated. Land movement, landslides, and earthquakes could damage the pipe, causing a catastrophic explosion, death and injury, and damage to private property. A landslide or soil slippage due to pipeline construction could cause the same damage even without a pipeline explosion.

Studies have not been completed regarding the significant threat to the ACP from geohazards.The best way to avoid these potential negative impacts is to reroute the pipeline away from steep areas, including all of Bath and Highland Counties, and other counties and areas that contain steep slopes that are included in the current route, away from any area that is undergoing fracking, or may undergo fracking in the future, and away from any area that has recently experienced an earthquake.

Lack of Adequate Pollution Controls

The DEIS states in section ES-9 that water pollution mitigation techniques undertaken by the ACP will reduce water pollution to less than significant impacts. Nothing could be further from the truth. The mitigation techniques described are inadequate, and would allow very large amounts of pollution to enter public waters.

The stated use of silt fence, hay bales, water diversions, and revegetation for this project is at best a joke, and would be ineffective. This project would disturb around 20 square miles of earth, and would include large scale excavation, with a large part of it on very steep mountainsides that are erosion and landslide prone, and would be difficult to revegetate, according to the DEIS. The project would also cross hundreds of waterways.

A project of this scope requires detailed erosion and sediment control plans that are approved by a legitimate erosion and sediment control authority, and not by FERC. It needs sediment traps and sediment basins to catch and detain sediment laden runoff, so that the sediment particles can settle out prior to discharge into public waters. In many cases it needs erosion control netting to hold thin soils in place on steep slopes until grass is fully established, and the grass shields the ground from the impact of rainfall, and the roots hold the soil together.

Silt fence cannot withstand concentrated flows, or even sheet flow over anything but a short distance and a moderate slope. Silt fence will fail very quickly on steep slopes, and if diversions or length of flow concentrates the flow. Silt fence will not protect our public waters from sediment runoff from this project. The same applies to hay bales or straw bales. Diversions will concentrate flow causing concentrated erosion in the flow path, especially on steep and long slopes. Rather than prevent erosion they will contribute to it.

The DEIS states that construction may result in a temporary increase in turbidity which would reduce dissolved oxygen levels and have a minor impact on aquatic life. This is not correct. Impacts would be large and longlasting. Sediment in water bodies does not magically disappear. It remains for long periods of time. It may wash downstream and fill in the channels of slower velocity downstream waters. This, in turn would reduce the cross section of those channels and decreasing their ability to contain high flows, which would increase flooding. The native brook trout population of Western Virginia and West Virginia could be lost in numerous watersheds as a result these pollution impacts. Other aquatic species would suffer as well.

The DEIS states that hydrostatic testing discharges will average between 1,500 and 2,500 gpm, and that discharges would occur on upland areas to reduce pollution to receiving streams. This volume of water at this rate of discharge cannot be adequately treated in this manner. The toxic pollutants from the manufacturing process flushed from the pipe will not be treated whatsoever, and the volume and rate of discharge to upland areas will cause significant erosion and scouring of the land as it flows down to the receiving stream. Large amounts of sediment will actually be created by this method and they will be discharged into the stream along with the toxic pollutants flushed out of the pipe. So rather than reduce pollution this method will increase pollution.

The DEIS is remiss in that it does not state the total volume of hydrostatic testing discharges that are likely to occur. Regardless of the total volume, these discharges must be contained in a treatment pond or tank. During containment, the liquid must be treated, and then tested prior to discharge to public waters to make sure the discharge meets water quality standards and temperature requirements. Then the liquid must be released at a non erosive velocity to public waters.

The DEIS states that cumulative impacts to water pollution were based on drainage areas of 40,000 to 250,000 acres. That's 62.5 square miles to 391 square miles. The DEIS then states that the project would comprise only a very small percentage of that area, and therefore impacts would be less than significant. Once again FERC distorts reality to an absurd degree by this statement. Cumulative impacts must be considered for all waters, including local waters, not a large body of water taken as a single entity. Local waters would be severely damaged by this project.

Similarly, the DEIS states that the Jackson River and Back Creek, which are already temperature impaired will suffer further temperature impairment due to pipeline operation, but then states that this would be insignificant considering the entire stretch of the stream. Once again, FERC ignores the fact that these rivers will be negatively impacted, particularly in the area of the pipeline. This is not acceptable. Citizens and wildlife in the area of the pipeline should not be negatively impacted.

The DEIS states that there would be 13 waterbodies in contractor yards, but a 5 foot buffer would be maintained between the yard and the waterbody. This will provide virtually no pollution protection. Any rain event, flood, mishap, or spill will result in water pollution under this scenario. Contractor yards should not be placed where waterbodies are present.

This massive project's lack of adequate pollution controls is unacceptable. FERC's acceptance of these inadequate controls will result in large scale pollution. FERC must require stronger controls as stated above, and as required by reasonable standards under federal law.

Under Reporting Of Springs In Proximity To The Pipeline

DEIS table 4.3.1-2 lists springs in proximity to the ACP. It grossly undercounts the number of springs. I previously addressed this in my comments of November 14, 2016. Nevertheless, the undercount remains. For instance, from our east property line heading east along the proposed line there are no springs listed for about 8 miles, and only 3 springs are listed for all of Bath County outside of Little Valley. For all of Nelson County only two springs are listed. For all of Buckingham County only 6 springs are listed. Only 1 spring is listed for Cumberland County,

VA. No springs are listed for Prince Edward, Nottoway, Dinwiddie Counties, and only 3 are listed for Brunswick County.

Along the AP-2 line only one spring is listed for each of Northampton, Nash, Wilson, Johnston, and Robeson Counties in North Carolina. Only 2 are listed for Cumberland County. This is about 180 miles of pipeline with only 7 springs listed in proximity.

No springs whatsoever are listed for the AP-3, AP-4, and AP-5 lines of the proposed project.

These areas that the proposed ACP would traverse generally average 40 inches of rainfall per year. There are many springs, and I am sure that there are many, many springs near the pipeline that the ACP is not reporting. FERC must not accept this undercount. FERC must require accurate reporting of springs near the line.

The ACP has stated that they would complete water quality testing on springs near the proposed pipeline on a voluntary basis. Not reporting these springs means that they won't have to pay for that testing, and the owners of those resources may have no recourse if, and when the ACP pollutes them, diminishes their flow, or cessates them completely.

Many persons in rural areas near the proposed project have no public water available, and use springs as their drinking water source. They depend on these springs, and in many cases have built their home in a location where a spring can be used for their drinking water. Other springs currently not being used for a drinking water source could be used as a drinking water source in the future, especially if a new home is planned, or a property is being subdivided. These springs must be accurately accounted for, and given protection if damaged by the ACP.

FERC should require an explanation from the ACP about their gross undercount of springs close to the proposed line. FERC should require that the ACP conduct additional field surveys along the entire line with enforcement penalties issued if springs are missed or not reported. Another option would be to have FERC hire an independent contractor at ACP expense to do the same.

I suspect that the information regarding wells in proximity to the project filed in Table 4.3.1-1 is also inaccurate. FERC should carefully review this information, and take action as above for the spring count if it appears that this information is inaccurate.

General Comments

ES-3 Trench depth limited to 6-8 feet deep…this is not pertinent to the ACP. the ACP trench depth will be 10 feet at a minimum

1-4 ACP would supply gas service to West Virginia…it would not

2.3.3.1 After ACP completes land and easement acquisition survey crews come onto the property…survey crews come first

2.3.2.3 Trench 8 feet deep…various depths for the trench are listed in the DEIS. 8 feet deep would leave only 4.5 feet of cover over the pipe. This is not sufficient to protect against landslides like the ones that occurred in 2015 in Little Valley, and on our property, which would

have exposed the pipe.

2.3.2.7 Any leaks found in hydrostatic testing would be repaired…these leaks should be reported to the public.

2.3.2.9 Restoration will return all areas to pre-construction contours and natural drainage patterns with permanent slope breakers or diversion berms in place…breakers and berms would change the natural drainage patterns.

2.3.3.10 Construction will occur in winter conditions…this is unsafe, particularly on extreme steep slops and harsh winter conditions in Western Virginia and West Virginia

2.5.2 ACP would employ environmental inspectors…these should be independent inspectors hired by an independent party. DEIS should specify number of inspectors, their duties, and their authority, including issuance of fines and stop work orders

2.5.3 FERC compliance inspections…DEIS should specify number of inspectors, their duties, and their authority, including issuance of fines and stop work orders.

2.5.5 Post-Approval Variance process..should not allow route changes, or construction without surveys

4.1.2.3 Karst terrain not mentioned in Bath County…why not?

Table 4.1.2-2 Only 39% of Bath County was surveyed…all of Bath County should be surveyed.

4.1.4.1 Seismic related hazards…does not mention fracking induced earthquakes

4.1.4.2 One day of aerial reconnaissance along GWNF-6 route without LiDAR…why was LiDAR not used?

Page 4-26 and following pages on slope stability mentioning slopes that need additional study, and steep slopes that have been studied…all of these slope locations must be shown. Were the large landslides in Little Valley included?

4.2.2.11 The pipeline would have a typical bottom depth of 5.5 feet…this would leave only 2 feet of cover over the pipe, and must be incorrect.

4.3.1.7 Construction of pipelines would generally be confined to depths of 10 feet or less…this is not true of steep slopes and narrow ridges. Trench depths of 30 feet are possible in these areas. See Figure 1.

Table 4.3.2-2 Access roads would cross Cowpasture River at MP 97.8 and 97.9…are access roads really crossing the Cowpasture River?

Section 4 Large woody debris would be placed adjacent to waterbody crossings to add shade and improve fish habitat…this would do no good, and would likely wash into the channel during high flow conditions. Obstructions such as this should not be left in the floodplain.

Section 4 Floodplains Above ground facilities would be graveled allowing infiltration…there will

be minimal if any infiltration during flood events, and gravel will not reduce flooding.

Section 4 Dispersal of fish from blasting areas by drilling shot holes, banging on a piece of submerged pipe, or going out in bots to move fish away from blast zone…these would not be effective and likely would not be used

Section 4 Hydrostatic testing Withdrawal of water at 1,500 to 3,000 gallons per minute using a low pressure pump…a low pressure pump cannot withdraw water at these high rates

Section 4 Hydrostatic testing In karst areas Discharges at 1,500 to 2,500 gallons per minute would occur in upland areas…these large volume discharges would still enter karst areas and could cause rapid sinkhole formation, pollution to aquifers, and thermal pollution to receiving waters

Section 4 Hydrostatic testing Most water withdrawals would occur between August and October…this is the time of year when typical low stream levels occur. There may not be enough water to withdraw large amounts of water, and not significantly reduce stream flow and damage aquatic life

4.4.2.2 FERC received comments on 4 sensitive landscapes…I submitted comments about unique and sensitive old growth forest on Miracle Ridge on our property, and my comments were not addressed. Why not?

4.4.4 ACP found Japanese stiltgrass and multiflora rose along AP-1…barberry, bittersweet, and garlic mustard are common invasives along AP-1. Why were these not found? Why is this different then 4.4.9.2 which states that the ACP found 17 invasive species including garlic mustard and barberry?

4.6 Lists Little Valley Run as intermittent…..it is perennial

4.8.4.3 Averitt Spruce Creek Market and Resort would be mitigated…The pipeline runs right through the center of this planned development. How would it be mitigated?

4.8.5.6 0.3 miles of McDowell Battlefield would be crossed…the current route does not cross the McDowell Battlefield. I have commented on this previously, and it remains incorrect.

Table 4.8.9-10 pertains to old growth criteria for public lands…Why does this not pertain to private land

4.11.1.3 8%-12% of cleared timber will be burned…This will impact local air quality, and could result in forest fires

4.11.2 Pipeline construction noise would have no significant impact on nearby neighbors… does not mention noise from blasting. States that workers will keep radios at low volume. This assessment is 100% incorrect. Heavy construction and blasting will create very significant impacts to nearby neighbors.

4.13.2.2 Cumulative impacts from oil and gas exploration…excludes fracking, which is exploding. The ACP is built to carry fracked gas.

4.13.3.3 Cumulative impacts to water resources would be short term only measured in days or weeks…DEIS stated elsewhere that temperature impacts to the Jackson River and Back Creek would be permanent. Changes in stormwater runoff from forested ground to cleared ground would also entail long term impacts.

4.13.3.8 Overall visual impact of the pipeline would be minor given that it is buried. Above ground facilities would fit in with the general area…as earlier stated the pipeline would create a very large loss of scenic values. The valve station in Little Valley, and other above ground facilities in rural areas would not fit in with the general area. They would be an eyesore and greatly diminish scenic values.

5.1.3.1 There is no mention that blasting could collapse limestone channels and reduce or cessate water to wells and springs in karst terrain…this must be added and studied

5.1.4 Construction Vehicles will be cleaned before leaving sites to avoid the spread of invasive species…this is not likely to occur

5.1.7 Rusty patched bumblebee is now an endangered species. ACP will complete further surveys by 10/17…this is well after the close of the DEIS comment period, and probably the FERC decision on project approval. The DEIS comment period must be extended until at least 2 months after these surveys are completed.

5.1.15 Alternatives considered using criteria of homes within 50 feet of workspace, and economic practicality for the applicant…this criteria is much too simplistic. The criteria should include homes, schools, hospitals, businesses within 500 feet of workspace, within the blast zone, and within the evacuation zone with weighted factors including distance from pipeline, and number persons in each facility. The economic practicality for the ACP should not be factored in to alternative selection. That should be a voluntary decision made solely by the ACP. The economic practicality for private property owners through loss of property values, and local communities through loss of tax revenue, fewer homes sales and home construction, and loss of tourism should be factored in, because these entities do not have a choice in this matter.

Conclusion and Recommendations

The DEIS fails to accurately assess the impacts of the proposed Atlantic Coast Pipeline. It minimizes or completely dismisses the many negative impacts of the project. A number of these negative impacts are very large, and would result in life changing consequences to many affected citizens.

The DEIS was written without important information, expecially information regarding the significant public safety and public health issues. It is incomplete.

FERC conclusions in the DEIS are extremely biased toward the applicant and the energy industry. It is very apparent that information for FERC's conclusions was deliberately chosen to support approval of the project, and other information showing negative impacts was ignored, discarded, or discredited.

The DEIS states that the applicant will take measures to mitigate adverse impacts to less than

significant status. However, the stated mitigation procedures are ineffective, and there is no mechanism to assure that they will be carried out.

Prior to issuance of this document I had some faith that FERC that would complete an objective and impartial review of this project, and that would be reflected in the DEIS. it did not happen.

The DEIS must be retracted and rewritten following receipt of all information pertinent to the impacts of the project. It must be written using objective, unbiased data, and without that data being manipulated to mislead the public.

Given the large amount of invalid information that FERC has used to generally state that this project will have less than significant imapcts, while consistently dismissing valid information that shows that the project would have very significant negative impacts, FERC is liable for negative impacts that would occur if the project is approved under the same incorrect conclusions. If this project is approved and impacts my wife and I, or our property, I will seek reparations from all responsible parties and individuals until we are fully compensated. I will not relent in seeking that compensation to my final day.

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