On the Johnson property (3030 Mount Tabor Road) between points G and H in Figure 7, the MTV also goes immediately beside two sinkholes indicating at least conduits. Near the neighboring Pinckney property to the east, a 200 feet in diameter and 15-20 feet deep sinkhole exists. An open-throat sinkhole on the Prater property is connected to Slusser’s Chapel Cave by dye-trace studies in Figure 11. Two intermittent streams flow toward Mill Creek with one going underground. Also on the Johnson property are two ravines coming down from Brush Mountain through the National Forest that have large quantities of rushing water during a heavy rain. Those ravines are tributaries of Mill Creek and access it via the Hutton Property and a ditch along Mount Tabor Road with possible conduits to caverns on the Cox-DeGroff property.
Figure 28  Map of the 34 Sinkholes on the Cox-DeGroff Property

The 34 sinkholes were counted by FERC in their assessment of the danger of a specific pipeline path. The sinkholes were located and identified by the Virginia Outdoors Foundation during their studies to qualify the property as a certified conservation easement, which was granted in November of 2011. Several large and deep caverns exist below the 34 sinkholes as shown in Figure 29. The caverns are susceptible to collapse from blasting during construction, contamination during construction, and leakage during pipeline use. Some of those caverns...
Statements regarding dye-tracing and groundwater flow have been noted. Our EIS discusses dye-tracing and fracture trace analyses.

Currently, additional dye-tracing studies are being conducted to detect the underground flow of water from the northeastern portion of Mount Tabor Road. Preliminary results have established that the flow is from those points to Slusser’s Chapel Cave. Thus, the large number of sinkholes from point G to Point I in Figure 7 share some passages to Slusser’s Chapel Cave and beyond. That is, the interconnection of Slusser’s Chapel Cave to Mill Creek was established several years ago to identify a widespread aquifer under the Mount Tabor area. Accordingly, the extensive deep underground aquifer is now firmly established as extended to the northeastern portion of Slusser’s Chapel Conservation Site. The conclusion is that the water supply in the entire Slusser’s Chapel Conservation Site and beyond is endangered by the pipeline!
6. DCIR “AVOIDANCE” ROUTE ADVANTAGES OVER THE MOUNT TABOR VARIATION

6.1 Far Less Possible Damage to the Water Quality and Quantity in the Mount Tabor Area

The probability of blasting-caused aquifer collapse, fuel spills during construction, and gas leakage during pipeline operation affecting the water supply and water quality in the Mount Tabor Aquifer would be greatly decreased because the pipeline would not, by definition, go through (most of) the Slussers’s Chapel Conservation Site. Moreover, there should be little erosion of the covering of the pipeline on the non-karst ridge, hence less sedimentation to clog Slussers’s Chapel Cave and other parts of the aquifer. Generally, the path of the pipeline in Figure 9 is mostly horizontal with the exception of a slope down from the ridge to Point H in Figure 9 on Mount Tabor Road that is not nearly as steep as the slope down from Point A to Point B in Figure 7. Thus, there would be less erosion and sedimentation on the Avoidance Route down the slope to Point H in Figure 9 than on the original MTV from Point A to Point B in Figure 7, especially in Dyer’s “Grotto.” Yes, eroded slopes look bad, but that is not the crux of the problem with the pipeline. The crux of the problem is the sedimentation that comes from the erosion and makes its way down to Slussers’s Chapel Cave to clog and contaminate the central feature of the Slussers’s Chapel Conservation Site.

6.2 Less Karst Traversed

The Mount Tabor Variation (MTV) is entirely located in karst bedrock because nearly the entire Mount Tabor area is karst bedrock as seen in Figure 8 as the light blue area. The length of the MTV in karst is 4 miles, far more than the 7/10 mile mistakenly understated by MVP. The reason for that error is that MVP incorrectly considered the portion of the MTV outside the two conservation sites as not being karst (when in fact it is karst). The “Avoidance” cuts nearly two miles off the total distance in karst of the MTV by going on non-karst bedrock along the ridge of Brush Mountain and subsequently part of the way down from the ridge. The non-karst bedrock extends in a 5- to 6-mile-wide band below the ridge, but a pipeline should not be built side-slope along a mountain because of virtually guaranteed severe erosion and sedimentation problems that are extremely difficult to avoid. Mitigation of those problems is a pipe dream. Note that the non-karst bedrock provides a far more stable foundation for a pipeline because karst can degrade with time in the sense that sinkholes can develop under the pipeline. Then, if the sinkhole is broad enough, the pipeline would be unsupported and therefore prone to failure. The reduction in karst traversed is important because karst terrain has many interconnections deep below the surface constituting an aquifer to conduct water as well as sediment, spilled diesel fuel during construction, and fluids leaked from a pipeline in operation. The inevitable and voluminous gas leaks from a pipeline are also serious threats in underground caverns because of the possibility of explosions in the caverns. All those problems are significantly reduced by putting a portion of the route along the ridge.

6.3 Complies with VA DCIR Recommendation to Avoid Slussers’s Chapel Conservation Site

The principal reason for the “Avoidance” is to comply with the DCIR's previous recommendations not to build a pipeline through the Slusser's Chapel Conservation Site (also not in the Old Mill Conservation Site) because of the many sensitive karst features in the site(s). That is, many dangerous sinkholes, caves, and underground conduits are located in the site(s). The Slusser's Chapel Conservation Site has the highest concentration of sensitive karst features in the entire Mount Tabor Sinkhole Plain. There are also sensitive karst features in the Old Mill Conservation
Site although they are perhaps not quite as severe as those in the Slusser's Chapel Conservation Site. Of course, the entire Mount Tabor area, i.e., even outside the conservation sites, has dangerous sensitive karst features, but the degree of sensitivity is the issue. Specifically, the Mount Tabor Variation has many more sinkholes and caves than are shown on available maps. A prime example is the Cox-DeGroff property which is too close to the MTV with 34 sinkholes of which less than half are shown on maps and an 80'-deep cave from which the water drains under Mill Creek.

6.4 Farther From the Cox-DeGroff Sinkhole and Cave Complex
One major advantage of the "Avoidance" is that it passes farther away from the Cox-DeGroff property than does the MTV, but there are still underground conduits for water to flow from the remaining MTV properties in the vicinity of Point H in Figure 9 down to the extensive Cox-DeGroff cave and sinkhole system (27 of those sinkholes are within ¼ mile of the Mount Tabor Variation). Those conduits are being explored with dye-trace studies. The Cox-DeGroff sinkholes and cave empty their water into Slusser's Chapel Cave which is the central part of the Mount Tabor Aquifer where many water paths converge. Thus, the underground connection to the main aquifer remains.

6.5 Avoids Twice Crossing Stream TTVA-S-200
An additional major advantage of the Slusser's Chapel Conservation Site "Avoidance" is that it avoids twice crossing a major unnamed stream (TTVA-S-200) which flows into the Slusser's Chapel sinkhole and on to Slusser's Chapel Cave, which is a major part of the underlying karst aquifer. During heavy rains, the flow is quite rapid and has high volume. The inevitable erosion would send sediment from the erosion around the stream into the cave and have an almost guaranteed result of clogging the underground karst aquifer on which the many homes in the Mount Tabor area depend on for their wells (their only source of water). Some sediment from that stream already causes contamination during periods of heavy rain.

6.6 Avoids Crossing Mill Creek and its Seven Tributaries
The Slusser's Chapel Conservation Site "Avoidance" Route does not cross Mill Creek and its seven tributaries thus lowering the danger of erosion, sedimentation, and contamination of the underground aquifer with its irreversible, disastrous effect on water supply and water quality.

6.7 Improves the Fire Road on the Ridge of Brush Mountain
With the "Avoidance" Route, the fire road along the ridge of Brush Mountain would be significantly improved as a result of the pipeline construction building a better road to transport the pipe to where it is needed. Thus, construction on the ridge would benefit the Forest Service.

6.8 Fewer Land Parcels Crossed
Four fewer parcels of land are crossed than on the MTV. Three fewer parcels with an occupied house are crossed than on the MTV, so there is less danger to people than on the MTV.

6.9 Avoids a 1.5 mile-long Unsightly Gouge on the South Face of Brush Mountain
The pipeline on the Proposed Route (the Mount Tabor Variation) descends the south face of Brush Mountain for about 1.5 mile cutting a swath 125' wide. That cut zone would look like Figure 16, but with a wider excavation for a 42" pipeline instead of the 12" pipeline in Figure 16. Thus, the potential eroded zone would be wider and deeper than in Figure 16. That ugly gouge would be visible from Blacksburg; thus the Blacksburg viewshed would be blighted. Of the 125' clearing, 75' will take many years to grow back, but the 50' of the clearing will always remain.
6.10 Construction of a Pipeline across a Ridge is Easier than across a Sinkhole Plain
Any construction in bedrock is far easier than in karst with its many pitfalls that have been described in this report. Besides, the Avoidance Route is far straighter along the ridge than in the valley. These facts should be of interest to MVP because the construction cost of the pipeline across the ridge and down should be considerably less than on portion of the MTV that passes through the Slusser’s Chapel Conservation Site.

6.11 A Ridge is Better for the Integrity of a Pipeline
Undeniably, a non-karst bedrock is a better and safer foundation for a pipeline than a karst foundation. Thus, the integrity of the pipeline would be more adequately protected.

6.12 Less Potential Liability for a Ridge Route than in a Karst Area
Passing through a karst-ridden area with obvious danger points such as in the Slusser’s Chapel Conservation Site as described in Section 5 of this report has the probability of numerous lawsuits for knowingly endangering residents and their water supply. There would be even more serious consequences if the water supply were contaminated or cut off!

6.13 Summary of Advantages of the DCR “Avoidance” Route
For all the reasons just presented, I would think that MVP would jump at the chance to adopt the DCR “Avoidance” Route. MVP would save time, money, and the trouble they would have trying to build a pipeline on the Mount Tabor Variation through the Slusser’s Chapel Conservation Site. And that doesn’t even include the money for the liability involved with probable excessive erosion and sedimentation that could very well clog the aquifer denying Mount Tabor residents their water. Trouble, trouble, and more trouble!

7. CONCLUDING REMARKS
I strongly believe that no pipeline should be built through the Mount Tabor area. Dr. Ernst Kastning’s 40-year history of dealing with karst led to his declaration that the Mount Tabor area is a no-build zone for a pipeline. However, the Virginia DCR recommended “Avoidance” of the Slusser’s Chapel Conservation Site as the best path for a pipeline to follow through the Mount Tabor area if the pipeline must go through this area against all good sense. Twelve advantages are stated in this report for the “Avoidance” Route over the MTV. The MTV in the bulk of the Slusser’s Chapel Conservation Site must be bypassed using the DCR “Avoidance route”.

Recognize that no path through the Mount Tabor area is without substantial risk to the water quality and water quantity for the thousands of people living there and down the natural path of the water from Mount Tabor to the North Fork of the Roanoke River and on to the Spring Hollow Reservoir and beyond. Putting a pipeline through this area has a very high potential to create an irreversible ecological disaster resulting in a wasteland without potable water. If a pipeline must come through the Mount Tabor area, as hazardous as it is, the “Avoidance” Route is the least risky, but it is most assuredly not without considerable risk. Nevertheless, the “Avoidance” Route is far safer than the Mount Tabor Variation through the biggest portion of the Slusser’s Chapel Conservation Site. We stand firmly behind our water supply and water quality.
as all-important to the continued habitability of the Mount Tabor area. Our argument is DYMOWOW (Don’t You Mess With Our Water), i.e., a solid ecology-based argument, definitely not a NIMBY (Not In My Back Yard) argument which is a mere preference argument.

I just wish that the human beings that live in the Mount Tabor area and are dependent on their wells as their sole source of water were given the same consideration as the sub-human creatures that seem to have inviolable rights to be left alone. Identification of endangered species in an area apparently gives cause to strictly avoid that area with any pipeline. So far, identification of a probable irreversible catastrophic ecological disaster such as losing our water supply has failed to get any attention at FERC. Don’t we deserve at least equal protection to that that is afforded various endangered species? As far as I can tell, the residents of the Mount Tabor area are also an endangered species!

REFERENCES
1. Mountain Valley Pipeline Announcement of the Mount Tabor Variation, Mountain Valley Pipeline filing to FERC as 20160422-5012(31404063), 22 April 2016.
2. S. Rene Hykes, Virginia DCR 9 September 2016 filing to FERC, 20160909-5315.
3. Dye-trace studies performed under a grant from the Cave Conservancy of the Virginias to the New River Land Trust with technical assistance from the Virginia Department of Conservation and Recreation for the purpose of better delineating the Slusser’s Chapel Conservation Site.
4. Mountain Valley Pipeline Announcement of Proposed Pipeline Route to include the Former Mount Tabor Variation, Letter from Matthew Eberding of MVP to all stakeholders as Transmittal_MVP October 2016 Proposed Route 101316.pdf, 13 October 2016.
5. S. Rene Hykes, Virginia DCR 20 May 2016 filing to FERC, 20160520-505.
7. Ricky Myers, Engineering Manager, Mountain Valley Pipeline, FERC filing 20160712-5188(31576616), 12 July 2016, pdf p. 68.
Matthew Hall, Roanoke, VA.

The Mountain Valley Pipeline will provide desperately needed jobs for our area. It will also bring energy to our region. I support the MVP pipeline project.
The EIS concluded that for most environmental resources, the MVP would not have significant impacts. Visual impacts to the ANST are discussed in section 4.8 of the EIS. Impacts on tourism are discussed in section 4.9 of the EIS.

Impacts on water resources, and measures to reduce those impacts, are discussed in section 4.3 of the EIS. The EIS discusses seismic activity in section 4.1, and air quality in section 4.11. The EIS discusses forest clearing in section 4.4.

The MVP pipeline would transport natural gas; not oil. See the response to comment IND2-3 regarding hydraulic fracturing.
As citizens of this country, my family and most people I know have a basic trust in our government. We expect it to abide by the intent of the law and to protect the individual rights of its population. Missteps and misguided policies are inevitable, but usually it is accepted that a solid foundation of laws and respect for the private citizen form an underlying support for our institutions, culture and national identity. We are generally brought up to seek and create opportunities for our own success, knowing that this foundation supports us. We are also brought up to defend our rights, which many in my community are now doing in the face of the proposed Mountain Valley Pipeline.

The greatest problem confronting our communities with regard to the MVP is that the corporate interests are not only in conflict with local interests, but the corporation involved has repeatedly attempted to undermine the basic rights of citizens to private property and clean water. A number of lawsuits have occurred already regarding MVP’s surveying of private property without the owners’ permission.

This, and many other examples of manipulation in the contracting of easements, have deeply upset our communities. The failure of the DEIS to properly address serious issues of concern has particularly heightened anxiety, especially because it comes from you, a government agency, that should err on the side of caution, rather than on the side of leniency, in processing such a risky proposal as the MVP.

As individuals, we cannot possibly muster the resources to right the legions of lawyers, lobbyists and public relations funding of corporate interests. You have received many letters from scientists and citizens documenting serious gaps and inadequacies of the DEIS, as it relates to groundwater, landslides, flash floods, habitat destruction, insufficient emergency services, lack of committed funds for damages, and numerous other factors. We expect you, our government, to protect us, not ignore us. Are we naïve?

Individually, we cannot possibly muster the resources to right the legions of lawyers, lobbyists and public relations funding of corporate interests. You have received many letters from scientists and citizens documenting serious gaps and inadequacies of the DEIS as it relates to groundwater, landslides, flash floods, habitat destruction, insufficient emergency services, lack of committed funds for damages, and numerous other factors. We expect you, our government, to protect us, not ignore us. Are we naïve?

Section 1.4 of the EIS highlights stakeholder participation into the FERC’s environmental review process.

Groundwater, landslides, and pipeline safety were discussed in section 4.3, section 4.1, and section 4.12 of the EIS, respectively. A revised discussion of flash flooding is provided in section 4.3.2 of the final EIS.

See the response to FA11-12 regarding need. See the response to comment IND36-2 regarding eminent domain.

See the response to comment CO2-1 regarding benefits of the project.

See the response to IND2-3 regarding export.
INDIVIDUALS
IND263 – Elizabeth Kirk

See the response to FA11-12 regarding need. See the response to comment IND152-1 regarding our third-party construction monitoring program.

Impacts on water resources is discussed in section 4.3 of the EIS.

sufficient need for the gas in the U.S. has simply not been demonstrated. And local trust has been violated to the extent that statements from MVP, without legal backing and serious consequences for noncompliance, are meaningless. All we can perceive now is dissembling behavior, and the spectre of a thousand and one loopholes we know nothing about. You, FERC, are required by law to verify sufficient proof of need for the gas, by end users in this country, prior to granting MVP the right to eminent domain.

My home is on Hungards Creek. My family and all my neighbors depend on well water. What are we to do when we see our creek coated with sediment coming from the planned large construction area beside Hungards Creek and the and open cut creek crossing on Clayton Rd.? Our only option will be to try to negotiate mitigation with a company that has made a very poor name for itself in this area. You, FERC, have not required the MVP to project sediment loads coming from these and other construction sites. Why? Sediment does not just make water temporarily dirty. It is a known killer of the benthic life that forms the bottom of the food web. How many months will it take to clean this up? What will be the excuses for the delays? How many phone calls will have to be made and how many letters sent? Will we have to take legal action? How much will it cost? And will our creek be dying as all this goes on?

Most people I know still love their solid, principled country. Please help us believe we’re right, and hold the MVP accountable to the highest standards. I think we deserve it.

Respectfully,

Elizabeth Kirk
Hungards Creek Rd.
Talcott , WV
Guy W. Buford, Rocky Mount, VA. 

Our only earth [12]

Love for the actual homeland — U.S. mountains, creeks, rivers, trees and coasts — received little to no mention during the loud, glittery, floodlit 2016 campaign year.

This lack constituted a looming, silent void behind all the bright-spectacle speeches about homeland security and putting America first. The incoming political platform includes myriad planned assaults on our homeland and its life.

Federal agencies charged with protecting the common good, common lands, clean air and water will be headed by private industry players. Many in Congress, meanwhile, are pushing to industrialize, develop or eliminate our national forest and other federal lands that protect our vital water supplies, wildlife and climate.

Such a hostile attitude toward one’s own motherland would have been inscrutable to native dwellers here. Their government, religion and ethics were based on reverence for life, not money.

Do not approve the mountain valley pipeline

Excerpts from Field Notes by Liza Field 11/19/16
Ms. Kimberly D. Bose, Secretary
Federal Energy Regulatory Commission
888 First Street NE, Room 1A
Washington, DC 20426

Re: Draft Environmental Impact Statement, Docket No. CP16-10-000

Dear Ms. Bose:

I am commenting on all pages of the Draft Environmental Impact Statement for the Proposed Mountain Valley Project and Equitrans Expansion Project (September 16, 2016), Docket No. CP16-10-000 and Docket No. CP16-13-000.

I oppose any and all grants of Certificate to Public Convenience and Necessity to construct and operate any new pipelines in West Virginia and Virginia because the grant of such requests will completely destroy the land and water in which it goes through and the livelihoods and health of all life, human and otherwise, that is anywhere close to it. The whole idea of these pipelines is to further destroy our one and only earth that we all share and inhabit and to make the cuts in the land that is so precious to us, all for the sake of gas (and money). It has been proven that the better economic and ecological energy is found in wind and solar resources. This pipeline will not create new jobs for the communities it goes through except maybe a few and those would only be temporary. I implore you to listen to the people and not the corporations that are trying to push this down our throats. There have been so many gas explosions already; to build yet more would put many peoples' lives in danger and that very fact is inhumane and unconscionable.

Because of my concerns I have identified above, and significant information gaps that have been noted by other commenters and cited within the DEIS document itself, I request that the FERC issue a new DEIS with complete and corrected information so that the public has an opportunity to assess and comment on the potential impacts of the project prior to the issuance of the FEIS.

If the FERC does not issue a new DEIS, I request that the FERC choose the No Action Alternative.

Sincerely,

Elizabeth G. Long
P.O. Box 231
Parrott, VA 24132
(540) 553-5101

cc: U.S. Environmental Protection Agency

IND265-1 Renewable energy alternatives are discussed in section 3 of the EIS. See also the response to comment IND40-1 regarding renewable energy.

IND265-2 See the response to comment IND191-3 regarding local jobs.

IND265-3 See the response to comment IND2-1 regarding safety.

IND265-4 See the response to comment FA11-2 regarding pending information in the draft EIS. Section 3 addresses the No Action Alternative.
INDIVIDUALS
IND266 – Bruce W. Zoecklein

IND266-1

This communication is submitted in regard to the Mountain Valley Pipeline (MVP). As a scientist with over 40 years of experience I am concerned about the so-called facts presented to the public by MVP. MVP pipeline’s proponents, including FERC, believe it will bring economic benefits in the form of spending on construction, jobs and payments to local government during operation, and benefits derived from switching from other fuels to natural gas.

The gas industry-sponsored studies used to support these beliefs, however, use inappropriate methods and unrealistic assumptions that result in over-inflated estimates of the potential benefits of the MVP according to Keylog Economics, and independent consulting group. Gas industry generated studies make no mention of the potential harm, economic or otherwise, which leaves Virginia citizens with a distorted picture of the overall economic effect of the proposed pipeline. Considering an eight-county region alone, estimated one-time costs range from $65.1 to $135.5 million (Keylog Economics, 2016). These one-time costs comprise lost property value and the value of ecosystem services lost during construction.

Annual costs following the construction period include lower ecosystem service productivity in the MVP’s right-of-way, lower property tax revenue due to the initial losses in property value, and dampened economic development. These total between $215.0 and $227.6 million per year and would persist for as long as the MVP right-of-way exists—that is, in perpetuity (Keylog Economics, 2016).

Putting the stream of costs into present value terms and adding the one-time costs, the total estimated cost of the MVP in the eight counties impacted is between $14.5 and $15.3 billion! The costs represented by the estimates presented costs imposed on parties other than MVP. The external costs borne by the public do not affect the company’s bottom-line. From an economic perspective, the presence of externalities is what demands public involvement in decisions about the MVP.

Dr. Bruce Zoecklein
Dear Kimberly Bose,

This is a motion to intervene with FERC on Docket # CP16-10-000 or CP16-13-000, Mountain Valley Pipeline by Carolyn Ford, 272 Bells Lane, Staunton, Va.

I have been in medicine my whole career and our philosophy is “do no harm if possible”.

If you had a heart valve that was doing the job, we would not put in another, just because one of our main pharmaceutical providers wanted us to put in “their” valve. It is my understanding that in Virginia there are existing pipe lines that can handle the volume needed to transport gas from neighboring states to the southern destinations.

This eliminates the need for a fresh wound. It also buys time for a better, less invasive technique to be developed. Research is going to provide alternative energy sources and with this is going to come many jobs that will take us into the future.

Please do not let big business drive a self serving desire and play the eminent domain card, forcing the private sector to comply. Medicine has started to go down the road where “big pharmaceutical’s” are driving the decisions and look where that has gotten us.

Stop this project. Do the right thing for private land owners as well as the land. Do not create another unnecessary wound. Be forward thinking and encourage research that will be non invasive, easier on everyone and provide technology that will create jobs. The earth is our responsibility and we should do all we can to “do no harm”.

Thank you for this opportunity to oppose the Mountain Valley Pipeline.

Carolyn Ford

IND267-1
See the response to comment FA11-12 regarding need. See the response to IND40-1 regarding renewable energy.

IND267-2
See the response to comment IND1-3 regarding eminent domain.

IND267-3
The Commission would decision whether or not the MVP is necessary.
According to Mountain Valley’s filing on February 17, 2017 (response to Cultural Resources Question 20d of our January 26, 2017 EIR) the Samuel Gwinn Plantation at the Old Brick Manor Farm is about 6,691 feet away from the MVP pipeline and should not be affected.

IND268-1

We are the owners of “Old Brick Manor Farm” (OBMF). For many years that title has been used by the descendants of the 1770 settlers. Our land comprises 180 acres of the original 2000 acre plantation. It includes one mile of Greenbrier River waterfront and 1.3 miles of existing permanent access roadways.

Mountain Valley Pipeline sent us two important letters (4/8 and 4/9/2016) stating “...your property is located within the proposed survey corridor”, and in the second letter “is located within approximately 150 feet of MVP’s proposed construction ROW.” We had no information as to where the ROW would cross or approach our property. We promptly returned MVP’s form temporarily declining access. We also included a request for more location specifics, but have received no answer to date.

Apparently, at least one of the MVP contemplated ROW’s are at or near our land. Regardless of whether the ROW corridor crosses our property directly or proceeds in proximity to it we are deeply concerned about the probability of multiple adverse effects. Since we still do not know whether OBMF is to be a direct or indirect part of the ROW priorities we find it prudent to submit this letter to clarify our position and to request FERC’s support.

The purpose of this communication is to request FERC and MVP’s careful consideration of our reasons for the use of either ours and/or adjacent properties.

To date, our “Interests” are as follow:

A. Environmental Factors:
   1. Historic:

   1
a. We placed our property on both the West Virginia and the National Register of Historic Places in 1988. Therein it is titled “the Sam Gwinn Plantation”. It was chosen for its historic, architectural, archeological and environmental assets. It is puzzling why this property is excluded in the main portion of the DEIS? The MVP is aware of the BMF’s proximity to the ROW. Note their letter of 4.9.16 referenced above??

b. We have an application for the Summers County Farm Preservation Board for an Agricultural Conservation Easement. The objective is to protect ad infinitum this valuable farm property from development and to preserve this gorgeous, scenic, and historic plantation for the enjoyment of future generations.

c. Riverfront. Included in the 180 acres is a mile of pristine riverfront. This is the only undeveloped shoreline remaining on the lower Greenbrier Valley watershed. It is very popular for the public’s scenic and recreational enjoyment.

d. Viewscape: Both from its 1500 ft. elevation at the farm operation level, and at the 2500 ft. mountain top forest level, this property affords priceless scenes of river, farmland, mountains, valley, creek and forest. These scenic vistas include many counties and two states. Beginning with our ownership in 1974 we have carefully maintained three miles of forest and riverside trails, used for hiking, fishing, hunting, camping and equestrian purposes.

e. Since Virginia’s antebellum historic period (and later West Virginia) the Red Sulphur Springs Turnpike (Stage Coach) crossed our mountainside. The current Turnpike’s miles of single lane road continues to be used by the public and is maintained by Summers County; but now terminates at our border. Our portion has its own entryway and is an important part of our historic mountain trails. It is routinely maintained by us in its original condition.

f. Our very beautiful, scenic and historic property is viewed daily by travelers on the West Virginia Backway which fronts our riverside roadway (Lowell road).

g. Archeology: The farm improvements (the historic manor house with its remaining original eight plantation buildings) are located on a promontory about 150 ft. above the Greenbrier River. We have conscientiously maintained them for historic as well as current farm operations. With its comprehensive geographic position this land was an ideal location for prehistoric native camps and villages for defense, access to water, food and burials. Many ancient human artifacts have been and continue to be
Socioeconomic issues are addressed in section 4.9 of the EIS.

Because the pipeline is apparently not crossing the property, the existing utilities would not be affected.
Miles of fresh plank and wire fencing run throughout the farm dividing the property into crop fields, grazing, timber lots, and horse paddocks.

2. The farm’s water needs are supplied by two springs spread East/West on the upper forest mountainside. They supply an underground 2800 gallon cistern one quarter way down the mountain. Over a mile of 4 to 1 inch water pipe then distributes the water North/South and East/West to the manor and dependencies as well as numerous cattle troughs.

Our cattle are also watered by Wind Creek which crosses our property. OBMF’s spring water pipeline surface - crosses Wind Creek which originates north of us in the vicinity of the ROW. Polluted creek water from MVP operations could infect OBMF’s drinking water. It is subject to periodic flooding. We are very concerned that Wind Creek watershed is included in at least one of the priority ROW’s.

3. Access Roads:
   West Virginia roads # 15 and 15 a (Creamery and Lowell roads), with single lane state easements, abuts OBMF for 1.3 miles. Provided they are utilized by MVP several problems arise; (1) Heavy equipment and other vehicles traveling these narrow roadways will necessitate widening of existing lease ways onto our land. (2) Some of MVP’S water needs might be obtained from our one mile of waterfront property along Lowell road; (3). Of particular concern are that vibrations and/or shock waves from passing work vehicles could cause damage to OBMF fragile buildings only 100 feet distant.

4. Blasting/Drilling Explosions, etc.: This geographic area has proven to be earthquake prone. As a result we have carried an earthquake rider on our property since 1985. (Buildings covered at $900,000). Tremors from man - caused events such as excavating, blasting, deep drilling and traffic have been shown to be destructive in various regions.

Natural gas line and mine drilling explosions and other significant incidents are not uncommon. Therefore they are of particular concern for the fragility of OBMF. As recently as October 30 a major fatal blast of Colonial Pipeline occurred in a rural area near Birmingham, Alabama. Members of Congress are investigating it plus a large spill in September, plus smaller ones in 2015 in North Carolina and Virginia. The Williams-Transco gas pipeline explosion at...
Appomattox, VA is most alarming. The blast zone had a 1,125 foot radius; and that with only a 30 inch pipeline.

Additionally, Construction caused spills would be a serious danger for polluting Wind Creek.

Each of these are of very particular concern to us. The OBMF’s twelve room three story manor was constructed 150 years ago with handmade bricks and mortar (of sand, lime and clay) made on site by slaves. It is extremely soft and fragile. While being moved for US Interstate 64/77 construction, an identically constructed historic house, collapsed in a cloud of dust and debris after being moved less than a mere inch.

In conclusion, we request that FERC will assure OBMF that MVP and/or assigns will require our permission:

If the ROW operations intersect our property at any point;

If MVP widens to any extend Lowell or Creamery roads;

If MVP obtains water from the Greenbrier River across OBMF’s waterfront property;

We also request FERC to require written assurance that MVP and/or assigns will assume full responsibility to OBMF for:

Losses to buildings from road traffic;

Losses occurring from unnatural flooding and or pollution of Wind creek;

Losses of life, limb, and structure from gas line and drilling accidents/ incidents occurring within a reasonable explosion zone;

Losses of real estate value for the contemplated sale of OBMF during the entire 2-3 year construction period.

Related litigation expenses incurred to cover any of the above losses.
Each of these factors are very important to our personal interests as well as those of the public domain. We trust that MVP, FERC exercising due diligence in creating the EIS, will carefully consider the private and public interests identified in this letter.

Thank you in advance for your consideration.

Sincerely,

David and Jeanne Schmauss
Old Brick Manor Farm
106 Creamery Road
Pence Springs, WV 24962

Cc attorney

Apparently the MVP would not crossing the OBMF property.
IND269-1 See the response to comment LA1-4 regarding existing 42-inch-diameter natural gas pipelines. See the response to comment IND2-1 regarding safety. See the response to comment IND2-3 regarding hydraulic fracturing.

IND269-2 Climate change, GHGs, and cumulative impacts are discussed in section 4.13.

IND269-3 We assume the commenter is referring to MVP rather than the ACP Project. See the response to FA11-12 regarding need.

IND269-4 See the response to comment IND152-1 regarding our third-party construction monitoring program.

IND269-5 Renewable energy alternatives are discussed in section 3 of the EIS. See also the response to comment IND40-1 regarding renewable energy.
As stated in section 4.5.2, displaced wildlife would be expected to seek refuge in adjacent, undisturbed habitats and return to the right-of-way after completion of construction as vegetation restoration progresses. However, we recognize that some species may not recolonize the right-of-way to preconstruction levels.

Karst surveys have been conducted in areas for which Mountain Valley has obtained survey permission. If the project is certificated, any outstanding areas would be surveyed.
All timely comments on the draft EIS were considered by the FERC staff and addressed in the final EIS. See the response to LA2-1 regarding the draft EIS comment sessions. Dr. Kastning’s report on karst is discussed in section 4.1 of the EIS. Section 3 of the EIS has been revised to provide a discussion of the Hybrid 1A Alternative route. Section 4.10 of the final EIS has been revised to discuss comments from Tom King and Dan Pezzoni about historic properties; that were received after the draft EIS was written. The draft EIS made conclusions about environmental impacts, which should not be confused with a decision whether or not to authorize the project, which has not yet been made. The Commission will consider need in its Project Order; that is not an environmental issue.
INDIVIDUALS
IND272 – Pamela L. Ferrante

To: Federal Energy Regulatory Commission; Kimberly D. Bose, Secretary; Norman Bay, Chairman; Members of the Commission

From: Pamela L. Ferrante, DVM, PhD, Registered Intervenor and Affected Landowner

Date: November 27, 2016

Re: Docket No. CP16-10 Mountain Valley Pipeline - Draft Environmental Impact Statement (DEIS) falsely states there will be no impact on Slussers Chapel Cave

Opening Remarks

I disagree with the evaluation of Slussers Chapel Cave at Mile Post 221.93 in the DEIS supplemental data report released on October 10, 2016.¹ This report is incomplete and inaccurate, and will result in disastrous environmental consequences.

The DEIS table in Appendix L states there is “negligible potential for impact” for Slussers Chapel Cave even though “Slussers Chapel Cave and stream Insurgence are approximately 3,000 feet downstream of the proposed alignment”. What is more disturbing is that “n/a” [not applicable] has been stated for “Potential Impacts and Recommendations for Avoidance/Mitigation” and “No” has been stated for “Field Confirmed?”

How can the DEIS say without any field confirmation there is negligible potential for impact and how can they have no recommendations for avoidance/mitigation? This is extremely disturbing. The DEIS report is inaccurate and has been prematurely released.

Slussers Chapel Cave - Relationship to the Pipeline

MVP stated in the Draft Resource Report when considering the original 2015 pipeline route that Slussers Chapel Cave “is considered significant by the Virginia Cave Board and the Virginia Speleological Survey in the categories of geology, hydrology, biology, length and esthetics” and this mile-long cave “is located over 4,000 feet north of the pipeline alignment”.² MVP clearly understood the importance and the fragility of Slussers Chapel Cave at this time. Slussers Chapel Cave is now located 3,000 feet south of the Mount Tabor Variation pipeline alignment (Figure 1).

The initial DEIS released in September 2016 stressed the importance of Slussers Chapel Conservation Site and its related caves when it was “recommended that Mountain Valley conduct studies and further assess the feasibility of the Mount Tabor Variation, which would modify the location of the Slussers Chapel Conservation Site crossing and would potentially limit

¹ FERC submittal 20161020-5175, Appendix L
² FERC submittal 20151023-5033, Draft Resource Report 6 - Geological Resources

IND272-1 See a revised section 4.1 of the final EIS for information regarding the Mount Tabor Variation. Slussers Chapel Cave is located about a half mile from the October 2016 proposed pipeline alignment. This distance is sufficient to preclude Slussers Chapel Cave from impacts due to construction (i.e. cave collapse, or groundwater turbidity). Section 4.1 of the EIS provides a discussion of karst features and associated mitigation measures. See the response to comment FA11-15 regarding turbidity and sedimentation. See the response to comment IND70-1 regarding erosion.
The key phrase here is “impacts on caves and other karst features”. The proposed Mount Tabor Variation route has not accomplished this at all but instead has threatened the integrity of Slusser's Chapel Cave, the most important cave within Slusser's Chapel Conservation Site.

Figure 1. Alignment of the pipeline along the Mount Tabor Variation route and the entrance to Slusser's Chapel Cave.

The Mount Tabor Variation pipeline route is now precariously positioned closer to Slusser's Chapel Cave and is uphill/upstream from the cave entrance. The entrance to this fragile, significant cave is located in a sinkhole valley south of the pipeline alignment. This is clearly depicted in Figure 1 and in Figure 2. The alignment of the Mount Tabor Variation pipeline and Slusser's Chapel Cave is set up for a monumental environmental disaster.

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\(^2\) FERC submittal 20160916-4001, p. 4-255, DEIS Report
\(^4\) FERC submittal 20161014-5022(31736355)
Figure 2. Topographic map showing the proposed pipeline route in relation to the sinkhole valley.

Slussers Chapel Cave Watershed

The Mount Tabor Variation pipeline route will not only continue to cross the Slussers Chapel Cave Conservation Site watershed but will still directly affect Slussers Chapel Cave (Figure 3). The main stream feeding directly to Slussers Chapel Cave from the northwest will be crossed two times by the Mount Tabor Variation pipeline route (Figure 3).

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8 Dry-trace studies presently being conducted under a grant from the Cave Conservancy of the Virginias to the New River Land Trust with technical assistance from the Virginia Department of Conservation and Recreation.

6 FERC: submittal 20100425-3181, Majors

7 FERC: submittal 20100529-6012, Upson

INDIVIDUALS
IND272 – Pamela L. Ferrante

Individual Comments
**Figure 3.** Hydrological details of Slusser's Chapel Conservation Site. The dye-trace arrows on the figure show the general direction of groundwater through caves and karst terrain in the area.\(^5\)

Virginia Department of Conservation and Recreation (VDCR) warned that these streams are extremely flood prone and will be subject to high erosion both during and subsequent to construction.\(^6\) Landowners near Slusser's Chapel Cave have documented with revealing photographs water flowing from this uphill edge of this sinkhole valley to the mouth of the cave during heavy rain.\(^7,8\) Photo 1 shows "the failed system of state of the art meshwork and erosion control equipment that was installed just a few years ago to prevent water from directly flowing into the cave system."\(^9\)

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\(^5\) FERC submittal 20161009-5315, DCR  
\(^6\) FERC submittal 20161111-5062, Pickott  
\(^7\) FERC submittal 20161109-5017, Majors
Photo 1. This photo documents the heavy flow of water rushing towards Slussers Chapel Cave before entering the mouth of the cave during heavy rains.

MVP stated they will “restore land surface grades to pre-construction characteristics and not significantly change the volume of surface water that enters a karst feature.”\textsuperscript{11} It is evident right now that mitigation attempts have not solved the ongoing erosion and silt contamination of Slussers Chapel Cave. How can MVP engineers feel confident in avoiding catastrophic erosion during and after construction of the pipeline? The pipeline alignment is now poised along the upper rim of this sinkhole valley. Let me re-iterate my opening remarks. How can the DEIS say without any field confirmation there is negligible potential for impact and how can they have no recommendations for avoidance/mitigation? Construction of a 42-inch diameter pipeline and the mandatory treeless zone after construction will result in catastrophic silt contamination into Slussers Chapel Cave.

When referring to the original 2015 proposed pipeline route, VDCR emphasized that “our knowledge of the karst is incomplete.”\textsuperscript{12} This statement is still pertinent for the 2016 proposed Mount Tabor Variation route. The Mount Tabor Variation pipeline route now traverses the eastern edge of the Slussers Chapel Conservation Site along karst bedrock at the base of Brush

\textsuperscript{11} FERC submittal 20160226-5404, p. 425 of 730
\textsuperscript{12} FERC submittal 20160317-5126, DCR