west virginia department of environmental protection

Division of Waster and Water Management
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Austin Caperton, Cabinet Secretary
dep.wv.gov

February 8, 2018

Re: WV Permit No. WV0116815
Registration Application No. WVR310880
Mountaineer Gas Company
Eastern Panhandle Expansion Project
Responsiveness Summary

Dear Commenter,

The State of West Virginia, Department of Environmental Protection (DEP), Division of Water and Waste Management (DWWM) issued a State General Water Pollution Control Permit to regulate the discharge of stormwater runoff associated with oil and gas related construction activities. This General Permit authorizes discharges composed entirely of stormwater associated with oil and gas field activities or operations associated with exploration, production, processing or treatment operations or transmission facilities, disturbing one acre or greater of land area, to the waters of the State. WV0116815 (Stormwater Associated with Oil and Gas related activities) was issued on May 13, 2013. It became effective on June 12, 2013 and expires on May 13, 2018.

The Eastern Panhandle Expansion Project (EPEP) is a proposed project that is comprised of approximately 23 miles of natural gas pipeline through: Morgan and Berkeley Counties in West Virginia. This registration under WV0116815 (registration #WVR310880) would be for the discharge of stormwater associated with the disturbance of 191.7 acres of land for the construction of the project.

DWWM published a Class I legal advertisement (public notice) in the Morgan Messenger, and The Journal. These public notices allowed the DWWM to receive public comments on the proposed project. The public notice/public comment period closed on January 19, 2017.

There was one public hearing held for the Oil & Gas Construction Stormwater General Permit Registration (WVR310880):

- Berkeley Springs High School on Tuesday January 9, 2018

The DWWM would like to take this opportunity to thanks those who submitted written comments on this application. The DWWM has made every attempt possible to ensure that all questions/concerns related to the application were addressed. The attached Responsiveness Summary highlights the issues and concerns that were identified through written and oral comments received during the comment period.

The Responsiveness Summary is organized such that comments frequently mentioned, or general in nature, or outside the scope of DEP's authority, are responded to in Section A (General Comments Responses). More specific comments on the Oil and Gas Construction Stormwater Permit Registration, and our response, are found in Section B (Construction Stormwater Permit Registration - Specific Comments and Responses). Oral comments received at the Public Hearings are listed in Section C (Public Comments and Responses).

Thank you for your interest and comments on the Mountaineer Gas Company application. If you have any further questions or concerns, please do not hesitate to contact Jon Michael Bosley of my staff at 304-926-0499 ext. 1059 or by email at Jon.M.Bosley@wv.gov.

Sincerely

Scott G. Mandirola
Director

Section A: General Comments Responses

In many cases multiple comments were provided on specific sections or issues, and those responses have been categorized to the extent possible below:

A. **Horizontal Directional Drilling (HDD) in Karst Terrain:** There are two HDDs identified in the plan under Sleepy Creek and Back Creek. These HDDs are not located in karst terrain. The Karst sections are predominantly located in Berkeley County between Hedgesville and Exit 16 on Interstate 81, and adjacent to Burnt Factor, West Virginia.

B. **Karst Mitigation Plan:** The proposed Eastern Panhandle Expansion Project (EPEP) route crosses karst terrain in Berkeley County West Virginia. GeoConcepts Engineering, Inc. developed a Karst Mitigation and Avoidance Plan for Mountaineer Gas Company, which identifies construction and practices in karst areas. Erosion and sediment controls (ESC) will be utilized from the Sinkhole Mitigation Guidance-West Virginia Department of Environmental Protection.

C. **Inspection Frequency:** Inspection frequencies in watersheds with Total Maximum Daily Loads (TMDLs) for iron impairments need to be reduced from the permit timeframes. Inspection of all erosion and sedimentation controls within disturbed areas will be, at a minimum, performed once every four calendar days and within 24 hours after any storm event greater than 0.25 inches per 24-hour period. Repairs or maintenance shall be performed immediately to Best Management Practices (BMPs). Rain gauges will be located at all project trailers and throughout the project area to monitor and record daily rainfall events. The stormwater pollution prevention plan and the plan set narrative have been revised to reflect the inspection frequency for areas where the pipeline construction discharges to streams impaired for iron.

D. **Water Quality Monitoring:** Water Quality Monitoring is not required by the General WV Water Pollution Control Permit No. WV0116815 or EPA's Stormwater Construction General Permit.

E. **Site Specific Stream Crossings:** The stream crossing details provided in EPEP permit application shows several different crossing methods – including pump around, flume, and cofferdam pump around. The type of crossing will be determined during construction to provide the least amount of environmental impact to the resources. Variables including predicted and actual streamflow are factored in when making the final stream crossing decision. This practice is common in the utility line construction industry. Stream impacts are reduced and minimized by using instream diversions during construction, performing constructing activities during low flows, avoiding the streams during seasonal restrictions, and using more stringent ESC BMPs around the resources. The streams will be restored to preconstruction conditions by using approved construction techniques. All stream banks are to be immediately stabilized and restored as soon as the pipeline is installed, and the temporary crossing is removed.

DEP's authority to permit this activity is derived from state code, as oil & gas construction activity is exempt from federal NPDES permitting. DEP issued the Stormwater Associated with Oil and Gas Related Construction Activities General Permit in 2013 specifically to regulate this type of activity. The general permit registration requires the development of a Site Registration Application and a site specific Stormwater Pollution Prevention Plan (SWPP), much like would be required in an individual permit. Projects like this one are subject to public noticing requirements. Despite the permit being labeled as "general", DEP believes the practical level of review and overall permit would essentially be the same, be it a registration under this general permit, or if an individual state permit was issued.

F. Drinking Water Contamination in Karst Areas: Although a comprehensive field survey has been conducted, Mountaineer will be required to continually assess whether any new or additional geologically sensitive features are identified during construction activities. This assessment typically focuses within the permitted limits of disturbance (LOD) but will also entail, to the degree reasonable, an assessment of new, outside LOD areas that may be impacted by site runoff. Should a new feature, not previously identified in the pre-construction survey be identified, Mountaineer will assess and develop a BMP or mitigation approach for the feature and notify DEP within 30 days of discovery.

As part of a comprehensive monitoring and assessment program, in addition to monitoring for the development of new Karst features during construction, Mountaineer is also going to sample and analyze local water sources. Per their approved Stormwater Pollution Prevention Plan (SWPPP), Mountaineer will identify potential residential, potable water sources within 250' of the proposed pipeline and offer to the residence to sample their water and test for standard chemical and biological constituents by a licensed WV laboratory. Upon approval of the land owner, samples will be collected and analyzed both prior to construction and after the completion of site reclamation. Results will be compiled and provided directly to participating residents.

G. HDD Blowouts: This is beyond the scope of the Oil and Gas Stormwater Permit, however prior to commencing HDD operations, Mountaineer Gas Company will coordinate with the drilling contractor and develop a HDD Contingency Plan to address any issues that may occur.

H. Stream Bank Restoration/Stabilization and Wetland Crossings: The pipeline route has been mapped to traverse away from and/or around stream and wetland areas to the maximum possible extent, thereby minimizing potential impacts to these sensitive areas. Where streams and wetland areas have not been avoided, methods such as boring and controls such as timber mat bridges will be used. Details of these features are shown on the ESC Plans provided in Appendix C (of the application).

Temporary stream and wetland crossings will be installed as indicated on the ESC Plan sheets as per ESC Detail sheets. For all other surface or storm water conveyances that are not identified on the plan sheets as streams due to lack of defined bed and bank conditions, a temporary bridge

such as a timber mat or an approved equal shall be installed prior to crossing the conveyance, if there is flowing water present at time of construction in that area.

Any stream that has been disturbed by the installation of the pipeline will be restored by stabilizing the stream banks with slope stabilization. In addition, the streambed substrate removed during construction activities will be segregated and placed back into the stream following pipeline installation. For wetland disturbances, the top six to twelve inches of topsoil in wetland areas will be segregated and side cast temporarily during trench excavation, except in areas of standing water or saturated soils. Once the construction activity is completed, topsoil will be replaced in its original layer. This measure will be undertaken to preserve the wetland seed bank in the soils.

Section B. Construction Stormwater Permit Registration - Specific Comments and General Responses:

Comment #1: Our local Karst geography adds additional risk for contaminating our drinking water supplies.

We have excellent drinking water from our well, considerable investment in the equipment needed to efficiently operate the well, and no access to municipal water. We do not want our aquifer to be put at risk.

Response #1: See Section A. Response F. The project will cross approximately 5.3 miles of Karst in Berkeley County WV between Hedgesville and Exit 16 on Interstate 81.

Comment #2: I can think of many reasons to stop the construction of this pipeline, but it's the risk to our water that concerns me the most. This pipeline will cross 14 wetlands and over 65 streams that provide drinking water for countless amount of families. The Karst geology in our region makes this an even more risky project. The holes in the limestone will allow any leaks to travel miles downstream polluting countless wells and other streams. This is a recipe for disaster. My water is your water, water is life!

Response #2: See Section A. Response F for drinking water contamination and See Section A. Responses E and F for the stream and wetland crossings. The project will cross approximately 5.3 miles of Karst in Berkeley County WV between Hedgesville and Exit 16 on Interstate 81.

Comment #3: This project will impact countless waterways that are home to wildlife and the drinking water for thousands of people as well. It will also impact the lives/livelihood and land of those who who lived there for generations. The people know, without a doubt, that pipelines are no longer safe anymore. The stories of ruptured pipelines are too many too even count anymore. Let's be real here - this is not a pipeline for the people...it's about big business as usual. I am urging you to schedule a hearing so that all voices can be heard. That's democracy isn't it?

Response #3: See Section A. Response F for drinking water contamination and See Section A. Responses E and F for the stream and wetland crossings. A public hearing was held at Berkeley Springs High School on Tuesday January 9, 2018.

Comment #4: The manner that is proposed for the drilling of this pipeline is highly controversial in its safety to our water supply. Other areas have experienced "blowback" when using this method and this is a detriment for spillage into our wetlands and destructive by its nature.

Also, due to the Karst geographical formations in our region, this would bring a high risk for underground aquifer contamination and pollution to local well water.

Response #4: See Section A. Response F, and H, for drinking water contamination and HDD blowouts. The project will cross approximately 5.3 miles of Karst in Berkeley County WV between Hedgesville and Exit 16 on Interstate 81.

Comment #5: Karst areas are very special in terms of water. The proposed pipeline would be drilled and lie in a karst area. Both the drilling process and, if it is completed, the pipeline present risks. Water moves quickly in karst regions so contamination of the water would be swift and widespread. Pipelines leak. The Mariner 2 East Pipeline is a recent example of the damage to private water wells. Drilling for the Rover pipeline was halted earlier this year after two spills of a combined two million gallons of drilling fluid in Ohio wetlands.

Wetlands, ponds, streams will be impacted if anything goes wrong now or later, even many years later, with drilling and/or pipeline leaks.

Response #5: See Section A. Response A and F, for HDD drilling and for drinking water contamination, and See Section A. Responses E and H for stream and wetland crossings. The project will cross approximately 5.3 miles of Karst in Berkeley County WV between Hedgesville and Exit 16 on Interstate 81.

Comment #6: As a former resident of PA I understand what harm fracked gas can cause. From polluted streams, ground water and wells to damaged agriculture land. Ask the residents of Dimock PA what they think of fracking since it ruined the ground water in the whole town. Berkeley Springs is known for their quality water this could be a distant memory.

With the Karst geology in the eastern panhandle it's hard to believe Mountain gas would even want to dig in this geology. One tiny leak could travel for miles and pollute everything in its wake.

Response #6: See Section A. Responses E and H for steam and wetland crossings and See Section A. Response F for drinking water contamination. The project will cross approximately 5.3 miles of Karst in Berkeley County WV between Hedgesville and Exit 16 on Interstate 81.

Comment #7: Why do you want to destroy our drinking water. If it doesn't make you money, are you still interested? It's not supporting anyone here but it will destroy people's lives. The karst geography in this area cannot support your pipeline. That has already been proven.

Response #7: See Section A. Response F and B for the drinking water contamination and karst mitigation plan. The project will cross approximately 5.3 miles of Karst in Berkeley County WV between Hedgesville and Exit 16 on Interstate 81.

Comment #8: This pipeline could cause much harm to the people living here including illness and birth defects. Everyone needs clean drinking water.

The proposed pipeline would carry poisons which could potentially leak into our karst topography; thus contaminating and polluting our clear streams and wetlands as well as the aquifers of the Potomac River / Chesapeake Bay Watershed. Many count on these sources for drinking water.

Response #8: See Section A. Response B for drinking water contamination, See Section A. Responses B, E and H for the karst mitigation plan, and stream crossings. The project will cross approximately 5.3 miles of Karst in Berkeley County WV between Hedgesville and Exit 16 on Interstate 81.

Comment #9: Meanwhile, our streams, our drinking water, are compromised, our landscapes degraded, our places for hunting and fishing are getting chopped up, our property values are falling. For what? We are told this project will bring jobs and economic development. The reverse is the case all over the world. Have you heard of the "resource curse?" It is a proven phenomenon whereby countries blessed with natural resources -- especially gas and oil -- actually fare worse than their neighbors economically. (Think Nigeria, Angola, Venezuela.) Their agriculture and small industry wither away, their politics get corrupted, and their countryside polluted. Funny...sounds a bit like West Virginia! And yet, with each new fossil fuel bonanza, we get sold the same old story.

I don't need to walk you through the details of stream crossings and karst limestone, you know the route and the geology better than I do. What I'm asking you to do is step up to your mission as defenders of our beautiful state's priceless landscapes and communities. We need livelihoods with a future, that nourish our people and countryside, not devastate them. We need small agribusiness and jobs in renewables, not more of the same dirty rut. Don't sell us to Moutaineer/TransCanada.

Response #9: See Section A. Response F and B for drinking water contamination and the karst mitigation plan and See Section A. Responses E and H for stream crossings. The project will cross approximately 5.3 miles of Karst in Berkeley County WV between Hedgesville and Exit 16 on Interstate 81.

Comment #10: I am writing to ask you to deny the above permit. I am very concerned with the impacts the construction of this pipeline will have on the health and quality of our streams. Mountaineer Gas has stated they will utilize Horizontal Directional Drilling (HDD) for all high quality streams, as a safer method of pipeline construction underneath waterways. However, when the HDD method is used, there is a potential for what is known as a "blow-outs" where the drilling mud and often diesel fuel is spilled into the waterways. Just this past summer, the Rover Pipeline spilled over 2 million gallons of drilling mud and diesel fuel into their wetlands. A permit cannot guarantee these types of accidents, will not happen and negatively impact our streams and their aquatic inhabitants.

A general pollution control permit is not adequate in protecting our creeks, some of which feed into larger streams and the Potomac River, where towns receives their public water supply. A 'blow-out" from the HDD drilling could also impact many underground aquifers and local residential wells, by

clogging them with drilling mud. This segment of pipeline construction has the potential for long-term impacts on up to 67 streams and 14 wetlands, and that is not a risk we can take. I also feel this permit is premature in timing, due to the fact that FERC has not issued their response from their Environmental Assessment for the 3.4 mile portion of the TransCanada pipeline, from PA, through MD and into WV. Due to my above concerns, I hope that the State DEP will deny this permit and I would also like to request a local public hearing for this permit proposal. It is also pertinent to add, that the permit proposal has a very large mistake in the location of the pipeline under Back Creek, the permit list this creek in Gerrardstown, WV and that is almost 10 miles off from the pipeline crossing and Back Creek does not even go through that town. So, the latitude and longitude of the pipeline crossing under Back Creek needs to be corrected before this permit is even accurate.

Response #10: See Section A. Responses E and H for stream and wetland crossings. See Section A. Response A for HD Drilling, and See Section A. Response G for HDD blowouts, and B for the Karst mitigation plan. The project has been designed using professionally accepted engineering and hydrologic methodologies. The submittal provides the DWWM with all of the required information in accordance with the States Oil and Gas Water Pollution Control Permit and includes a description of BMPs that will be included in erosion and sediment control plan sheets and the SWPPP and the Karst Mitigation and Avoidance Plan.

The coordinates provided are correct and were confirmed using ESRI's ArcMAP software.

A public hearing was held at Berkeley Springs High School on Tuesday January 9, 2018.

Comment #11: There are NO gas pipelines under the Potomac River from Point of Rocks to Cumberland. It is a region of Karst rock formation. The reason that there are no gas pipeline is because it is too dangerous. The pipeline Trans Canada proposes to build goes under the Potomac River at Hanover half way between Point of Rocks and Cumberland, the heart of Karst territory.
It is too dangerous to drill in that area and too dangerous to lay a pipe there. In the uncertain rock formations it is too easy for a pipe to break and gas to escape into the subterranean cavities and water courses. How is that to be detected and once detected how repaired?

It is common knowledge that pipelines break. Why would anyone endanger the downstream drinking water. One half of Berkeley County's and Martinsburg's drinking water comes from the Potomac.
Please protect us by not approving this pipeline. I request a public hearing.

Response #11: This project does not cross the Potomac River. See Section A. Response A and B for HD Drilling and the Karst mitigation plan, See Section A. Response F for drinking water contamination. The project will cross approximately 5.3 miles of Karst in Berkeley County WV between Hedgesville and Exit 16 on Interstate 81.

A public hearing was held at Berkeley Springs High School on Tuesday January 9, 2018.

Comment #12: Not only will it endanger 14 wetlands and 67 streams it will put at risk a huge aquifer that exists in our Karst geographical formations. I live less than a mile from the proposed pipeline and I know of several sinkholes between my house and the pipeline route.

Response #12: See Section A. Response E and H for stream and wetland crossings, and See Section A. Response B for the Karst mitigation plan. The project will cross approximately 5.3 miles of Karst in Berkeley County WV between Hedgesville and Exit 16 on Interstate 81.

Comment #13: I am opposed to this pipeline for the following reasons: High risk of polluting drinking water in the Potomac, the 67 + Streams it will cross and wetlands essential to wildlife. High risk of polluting ground water, wells, irrigation systems, farm ponds-due to the porous Karst underground in this geographic area where water carrying other (perhaps toxic) substances can travel and pollute undetectable areas until it is too late.

Response #13: See Section A. Responses E and H for stream and wetland crossings. See Section A. Responses F and B for drinking water contamination and the Karst mitigation plan. The project will cross approximately 5.3 miles of Karst in Berkeley County WV between Hedgesville and Exit 16 on Interstate 81.

Comment #14: Not only will it endanger 14 wetlands and 67 streams, but it will put a huge aquifer at risk that exists in our Karst geographical formations. I live less than a mile from the proposed pipeline and I know of several sinkholes between my house and the pipeline route.

Response #14: See Section A. Responses E and H for stream and wetland crossings. See Section A. Response B for the Karst mitigation plan. The project will cross approximately 5.3 miles of Karst in Berkeley County WV between Hedgesville and Exit 16 on Interstate 81.

Comment #15: I am worried about the impact it will have on streams it will be crossing and possible contamination of the wells in that area. It is a known fact that the Mariner 2 East Pipeline ruined 15 residential wells due to an intrusion into the aquifer from Hoizontal drilling methods. We are also at high risk for underground aquifer contamination and pollution spreading to local well water due to the Karst geological formations in our region.

Response #15: See Section A. Responses E and H for stream and wetland crossings. See Section A. Responses F, A, and B for the drinking water contamination, HD Drilling and the karst mitigation plan. The project will cross approximately 5.3 miles of Karst in Berkeley County WV between Hedgesville and Exit 16 on Interstate 81.

Comment #16: Mountaineer Gas Company plans to use horizontal directional drilling (HDD) to cross these high quality streams. This drilling method is controversial and prove to "blowouts."

Response #16: See Section A. Response A and G for HD Drilling and HDD blowouts.

Comments #17: A permit for #WVR310880 should not be granted. Water is our most precious resource. I'm concerned that we are not treating it as such. Karst areas are very special in terms of water.. The proposed pipeline would be drilled and lie in a karst area. Both the drilling process and, if it is completed, the pipeline present risks. Water moves quickly in karst regions so contamination of the water would be swift and widespread. Pipelines leak. The Mariner 2 East Pipeline is a recent example of the damage to private water wells. Drilling for the Rover pipeline was halted earlier this year after two spills of a combined two million gallons of drilling fluid in Ohio wetlands.
Wetlands, ponds, streams will be impacted if anything goes wrong now or later, even many years later, with drilling and/or pipeline leaks.

Furthermore, we should be moving forward with clean energy, not fossil fuels, especially when safe drinking water, wetlands, and streams are at risk. As someone who began life in Doddridge County and still shares property with siblings there, I'm well aware of the cost to the environment and water from drilling for fracked gas.

Please consider a public hearing in regard to this permit so the voices of people may be heard and a dialog can take place. Do not grant a permit to WVR310880.

Response #17: The project will cross approximately 5.3 miles of Karst in Berkeley County WV between Hedgesville and Exit 16 on Interstate 81. See Section A. Response A and B for HD Drilling and the Karst mitigation plan, and See Section A. Response F for drinking water contamination. See Section A. Responses E and H for stream and wetland crossings. A public hearing was held at Berkeley Springs High School on Tuesday January 9, 2018.

Comment #18: I am writing as a concerned citizen regarding the request from Mountaineer Gas for a permit to build a pipeline which will transport dangerous chemicals through Berkeley and Morgan counties. Please encourage debate and citizen input. I am glad that there will be a public hearing. I support the Potomac River Keepers Network. They have done extensive research into the adverse effects this pipeline could have on our communities. I hope the permit for Mountaineer Gas to build the pipeline is denied. This pipeline could cause much harm to the people living here including illness and birth defects. Everyone needs clean drinking water.

The proposed pipeline would carry poisons which could potentially leak into our karst topography; thus contaminating and polluting our clear streams and wetlands as well as the aquifers of the Potomac River / Chesapeake Bay Watershed. Many count on these sources for drinking water. Pipelines like this one have been known to break and pollute the wells of local residents. This pipeline is not in the best interest of the residents of Berkeley and Morgan counties. Please give thoughtful consideration to the data presented by the Potomac River Keepers Network and be aware of the danger which this pipeline presents to WV residents and our children.

Response #18: See Section A. Response F for drinking water contamination, and See Section A. Response B for the Karst mitigation plan, and See Section A. Responses E and H for stream and wetland crossings. The project will cross approximately 5.3 miles of Karst in Berkeley

County WV between Hedgesville and Exit 16 on Interstate 81. A public hearing was held at Berkeley Springs High School on Tuesday January 9, 2018.

Comment #19: I write today as a resident of Berkeley Co., WV., and am very much against the proposal to allow 23 miles of pipeline construction in Morgan and Berkeley Counties in our beautiful state of West Virginia.

The manner that is proposed for the drilling of this pipeline is highly controversial in its safety to our water supply. Other areas have experienced "blowback" when using this method and this is a detriment for spillage into our wetlands and destructive by its nature. Also, due to the Karst geographical formations in our region, this would bring a high risk for underground aquifer contamination and pollution to local well water. There are many more reasons to object and I am hoping that others will be writing to you to voice those objections. I am only naming two.

Recently, in the news, there was a dramatic leak and spillage from the new TransCanada pipeline in South Dakota. Fifty barrels of that dirty oil (over 200,000 gallons) spilled onto a small town. We don't need that type of problem here. Their neighbor in Nebraska is watching very closely because they have not yet approved this pipeline through their borders. Good for them. I hope the Nebraska farmers and ranchers stand firm.
Let us stand firm against this big company and say "NO"! This permit should not be granted.

Response #19: See Section A. Response A and G for HD Drilling and HDD blowouts. The project will cross approximately 5.3 miles of Karst in Berkeley County WV between Hedgesville and Exit 16 on Interstate 81. See Section A. Response B for the Karst mitigation plan, and See Section A. Response F for drinking water contamination.

Comments#20: This project will impact countless waterways that are home to wildlife and the drinking water for thousands or people as well. It will also impact the lives/livelihood and land of those who who lived there for generations. The people know, without a doubt, that pipelines are no longer safe anymore. The stories of ruptured pipelines are too many too even count anymore. Let's be real here - this is not a pipeline for the people...it's about big business as usual. I am urging you to schedule a hearing so that all voices can be heard. That's democracy isn't it?

Response #20: See Section A. Responses E and H for stream and wetland crossings. See Section A. Response F for drinking water contamination. A public hearing was held at Berkeley Springs High School on Tuesday January 9, 2018.

Comments #21: I am writing to ask you to deny this permit to the Mountaineer Gas Co. that would allow them to start the 23 miles of pipeline from Morgan to Berkeley County. I also feel that there should be a public hearing about this project. The community still needs answers on where this pipe will be placed and what streams and creeks it will cross.

This letter comes only 4 days after the news broke about the Keystone pipeline leak spilling over 200,000 gallons of oil in S. Dakota. This tragedy will permanently damage that land and possible water supplies. It makes me sick to my stomach that we are proposing a similar pipeline.

I can think of many reasons to stop the construction of this pipeline, but it's the risk to our water that concerns me the most. This pipeline will cross 14 wetlands and over 65 streams that provide drinking water for countless amount of families. The Karst geology in our region makes this an even more risky project. The holes in the limestone will allow any leaks to travel miles downstream polluting countless wells and other streams. This is a recipe for disaster. My water is your water, water is life!

Response #21: See Section A. Response F and B for drinking water and the Karst mitigation plan. A public hearing was held at Berkeley Springs High School on Tuesday January 9, 2018.

Comment #22: We are writing to oppose the permit to construct a pipeline in Morgan and Berkeley Counties requested by Mountaineer Gas. It is imperative that our country and state prioritize transitioning as quickly as possible to non-carbon based fuels. Approving the permit further invests us in fossil fuels. The WV DEP is better served by also focusing on ways to help West Virginians conserve by reducing energy use. Approving the permits puts at risk our indispensable local natural resources including 67 streams, 14 wetlands, and a pond. Our local Karst geography add additional risk for contaminating our drinking water supplies. We have excellent drinking water from our well, considerable investment in the equipment needed to efficiently operate the well, and no access to municipal water. We do not want our aquifer to be put at risk. We should be looking at bringing businesses to WV whose practices look toward a more sustainable future by employing alternative energy sources. Obstacles to bringing in such businesses include inadequate internet services. This is where infrastructure should be developed. The chance of spills and the continued use of fossil fuels both pose too much of a risk.

Response #22: See Section A. Responses E and H for stream and wetland crossings. See Section A. Responses B and F for the Karst mitigation plan and for drinking water contamination.

Comment #23: To whom it may concern, I am writing to protest and to ask the WV Dept of Environmental Protection to DENY Mountain Gas a WV General Water Pollution Control Permit for the construction of 23 miles of pipeline construction in Morgan and Berkeley Counties of WV. As a former resident of PA I understand what harm fracked gas can cause. From polluted streams, ground water and wells to damaged agriculture land. Ask the residents of Dimock PA what they think of fracking since it ruined the ground water in the whole town. Berkeley Springs is known for their quality water this could be a distant memory. With the Karst geology in the eastern panhandle it's hard to believe Mountain gas would even want to dig in this geology. One tiny leak could travel for miles and pollute everything in its wake.

With TransCanada's latest leak on the Keystone pipeline of over 210,000 gallon and counting, this should give the WV EPA great cause for concern. Look at the statistics for TransCanada pipeline

leaks, they NEVER built a pipeline that didn't leak. I hope this is not OK with WV EPA. We have a blossoming Solar Business in Berkeley Springs that can fill the needs of added electricity and no need for an archaic, environmentally abusive system to fill our energy needs.

Be progressive, advance the solar and wind industries, they have created more jobs in WV than coal and natural gas combined. Let's for once be in the lead, instead of last place in environmental issues.

Response #23: See Section A. Response F for drinking water contamination. The project will cross approximately 5.3 miles of Karst in Berkeley County WV between Hedgesville and Exit 16 on Interstate 81. See Section A. Response B for the Karst mitigation plan.

Comment #24: What is wrong with you people! If you want this pipeline so bad, run it thru YOUR LAND! And let it destroy YOUR WATER! And it's not a question of if, it's only a question of WHEN. All you have to do is read. Pipelines are destroying fresh water throughout this country. We are running out of it quickly. And what about all the explosions happening. How many lives are your going to take and consider it "the cost of doing business". It is totally unacceptable. Especially when there are great alternatives out there.

I bought and paid for my house seven years ago. I had the water tested. The remark from the tester was "the water here is as close to perfect as it gets". All my visitors say how great the water is. If you destroy it, then my home is worthless, because of you. Just remember that. When it all goes wrong, it is YOUR FAULT.

Why do you want to destroy our drinking water. If it doesn't make you money, are you still interested? It's not supporting anyone here but it will destroy people's lives. The karst geography in this area cannot support your pipeline. That has already been proven.

So.....I'm just saying NO to the pipeline. We will keep fighting till the end. We will win.

I live on Potter Road. You don't need my name or my phone number. I don't want to be contacted. In this world too much information is a dangerous thing. Just think about what you are doing.

Response #24: See Section A. Response F for drinking water contamination. See Section A. Response B for the Karst mitigation plan.

Comment #25: I represent over 200 members in West Virginia, 3000 members in Maryland with my organization, Potomac Riverkeeper Network. I am also part of a coalition of Maryland and West Virginia organizations that represent 1000s more. We are concerned that the applicant covered under a general stormwater permit is not adequate for the protections of the streams and rivers in the Eastern Panhandle. We are also concerned that the authorization of a stormwater permit is premature for this project. The supply pipeline from TransCanada has not completed its review with the Federal Energy Regulatory Commission. WV DEP should deny the applicant for a general stormwater permit until a final determination has been made by FERC. I am requesting a public hearing so that the public may

offer comments to WV DEP concerning this permit. If you require another form of official request for a hearing, please let me know.

Response #25: The project has been designed using professionally accepted engineering and hydrologic methodologies. The submittal provides the DWWM with all of the required information in accordance with the States Oil and Gas Water Pollution Control Permit and includes a description of BMPs that will be included in erosion and sediment control plan sheets and the SWPPP and the Karst Mitigation and Avoidance Plan. See Section A. Response E and H for stream and wetland crossings. A public hearing was held at Berkeley Springs High School on Tuesday January 9, 2018.

Comment #26: I don't need to walk you through the details of stream crossings and karst limestone, you know the route and the geology better than I do. What I'm asking you to do is step up to your mission as defenders of our beautiful state's priceless landscapes and communities. We need livelihoods with a future, that nourish our people and countryside, not devastate them. We need small agribusiness and jobs in renewables, not more of the same dirty rut. Don't sell us to Mountaineer/TransCanada.

And certainly don't make any decisions without holding a public hearing. If this is such a good idea, Mountaineer should welcome the opportunity to defend it before the public it is supposedly serving. Mountaineer is using eminent domain to force my neighbors to give up their land. The least the company can do is face them, and us, and convince us of the true need for such extreme measures.

Please order a public hearing. And, once you've listened to the people you hold office to serve, please reject Mountaineers application for a permit.

Response #26: The project will cross approximately 5.3 miles of Karst in Berkeley County WV between Hedgesville and Exit 16 on Interstate 81. See Section A. Response E and H for stream and wetland crossings. See Section A. Response B for the Karst mitigation plan. A public hearing was held at Berkeley Springs High School on Tuesday January 9, 2018.

Comment #27: I am writing to comment on Permit Number WVR310880. I am a resident of Jefferson County, West Virginia and request you deny the subject permit. This pipeline will not benefit the residents of the Eastern Panhandle while posing a great risk to our health and safety. The permit calls for too many water crossings in our Karst topography and doesn't adequately address the hazards or meet the requirements for the WVDEP Oil & Gas Construction Stormwater General Permit. My specific reasons for requesting the denial of the permit are as follows. Formal mitigation or avoidance measures of geologically sensitive karst areas aren't included in the application.
Site-specific designs for stream crossing methods are not included in the application. Open cut crossings and underground boring is proposed, but the open cut method is not specified and there is no contingency plan for underground borings. No descriptions of stream bank restoration and stabilization are included in the application. Restoration plans for stream crossings must be included.

The inspection frequency is not as stringent as other pipeline projects within the state. Inspections after 0.25 inch of rain should be required. No water quality monitoring is proposed. While not required it just makes sense that it be requested at all stream crossings. The Eastern Panhandle is flourishing because it has a beautiful and clean environment and adequate water and power for its citizens and industry. This permit threatens the panhandle for a very limited reward. Please deny Permit WVR310880. Thank you.

Response #27: The submittal provides the DWWM with all of the required information in accordance with the States Oil and Gas Water Pollution Control Permit and includes a description of BMPs that will be included in erosion and sediment control plan sheets and the SWPPP and the Karst Mitigation and Avoidance Plan. See Section A. Response B for the Karst mitigation plan. See Reponses E and H for the stream and wetland crossings. See Section A. Responses C and D for inspection frequency and water quality monitoring.

Comment #28: I respectfully request that the referenced permit for a gas line through Morgan County be denied. The risks to our water, soil, and environment far outweigh the profit to be made by an out of state company.

Response #28: The submittal provides the DWWM with all of the required information in accordance with the States Oil and Gas Water Pollution Control Permit and includes a description of BMPs that will be included in erosion and sediment control plan sheets and the SWPPP and the Karst Mitigation and Avoidance Plan.

Comment #29: The Sleepy Creek Watershed Association, Morgan County, WV continues to have concerns about the proposed pipeline. Some of these concerns were first expressed in our letter to the WV Public Service Commission, dated September 27, 2016, RE: Case No. 15-1256-G-390P. The following comments are inclusive of these original concerns as well some additional:

1) The public transparency of the project as originally promised by Mountaineer Gas is still not readily available. The content of the Permit Application is still without non-technical and consistent transparent visibility of the proposed routing through the Eastern Panhandle and in particular the Sleepy Creek Watershed and crossings of Sleep Creek and its tributaries.
2) In 2007, WVDEP's Total Daily Maximum Load (TMDL) evaluation within the Chesapeake Bay Watershed categorized Sleepy Creek as an "impaired stream" due to high bacterial counts and excessive sediment and nutrient load caused by on-going storm water stream erosion. The requested permit contains no description of positive action for mitigation of additional sediment contribution by pipeline construction or restoration of stream bank restoration associated with crossings as required by applicable state and federal regulations. This project must be required to comply with the WVDEP TMDL established for Sleepy Creek**.**
3) Sleepy Creek and its watershed are also identified as home to three endangered species: a. Harperella – found only in 10 places worldwide), b. Medium-Sized Wood Turtle, and c. Eastern Lampmussel. The survival of these species within and around Sleepy Creek is primarily dictated by local geology and stream topography. Again, the permit application provides for no

identification and protection of these endangered species during construction or for appropriate restoration of habitat.

4) Site-specific stream methods and safety contingency plans are not included in the application. This is especially critical for the proposed Horizontal Directional Drilling under the "impaired" Sleepy Creek. Incidents of release of drilling mud at bore sites, bentonite blowout, and surfacing of bentonite drilling mud at unexpected sites are not been uncommon at other horizontal drilling projects throughout the United States. Mountaineer Gas plans must detail how they propose to avoid and address such incidents and protect water resources within the Sleepy Creek Watershed.
5) No description of stream bank restoration and stabilization to include appropriate tree or grass riparian buffers is included in the application.
6) Inspection frequency is not as stringent as other pipeline projects within the state. Inspection and reporting should be required after every 0.25 inch rain event, and a plan for this must be included.
7) No water quality monitoring is proposed for any stream and for the "impaired" Sleepy Creek in particular. Water quality monitors should be installed at sensitive stream crossings similar to those along proposed pipeline construction routes in Virginia.

For the foregoing reasons permit application WVR310880 should not be approved.

Response #29: The project is available on the WVDEP website at the following link. https://apps.dep.wv.gov/WebApp/_dep/Search/ePermitting/ePermittingApplicationSearchPage.cfm**.** **The DWWM has TMDL requirements for streams with iron impairments. These streams are listed on the plan sheets, and advanced BMPs are required for these areas. See Section A. Responses E and H for stream and wetland crossings. See Section A. Response A for HD Drilling. See Section A. Response C and D for inspection frequency, and water quality monitoring.**

The project's environmental impact was reduced from 245.7 acres to 191.7. The acreage reduction was coordinated with the United State Fish and Wildlife Service (USFWS) during their review of federally listed endangered and threatened species and their designated critical habitats within Mountaineer Gas Company's proposed Eastern Panhandle Expansion Project Area. The USFWS stated that the project is not likely to adversely affect any federally listed endangered or threatened species. Tree clearing areas were selected to reduce the potential for impacts to Indiana bat and northern long-eared bat populations. These reductions resulted in a right-of-way reduction of generally 10-25 feet within forested areas. By reducing the LOD and tree clearing the impact to potential roost trees was reduced by 78% (from 9 to 2). These areas include a reduction in the LOD through the forested sections near Sleepy Creek and Back Creek. Both Sleepy Creek and Back Creek are proposed horizontal direction drill (HDD) crossings, and there is no proposed LOD within 175 linear feet of either creek.

Comment #30: Mountaineer Gas has stated that they plan to utilize Horizontal Directional Drilling (HDD) for all high quality streams, as a "safer" method of pipeline construction underneath waterways. However, when the HDD method is used, there is a potential for what is known as "blow-outs" where drilling mud (laden with chemicals) and as well as diesel fuel are often spilled into the

waterways. For example, the Rover Pipeline spilled over 2 million gallons of drilling mud and diesel fuel into sensitive wetlands this past summer. There are decades of records of pipeline breaches, breaks, explosions, leaks, degradation, and failures that have led to costly and negative environmental outcomes. These types of accidents and spills affect communities for the long term while the companies responsible often get away with minimal penalties or fines and continue on with " business as usual" at the expense of everyone else. These types of infrastructure create environmental disaster areas and negatively impact our streams and the inhabitants that depend upon them: people, fisheries, businesses, farmers, recreation and tourism, and of course future generations.

Clean waterways and drinking water are something we cannot afford to gamble with no matter what the gas companies try to convince us of. A permit cannot guarantee these types of accidents will not happen. Moreover, a general pollution control permit is not adequate for protecting our creeks, streams and rivers.

We live in a region with a geologic feature known as 'Karst" topography which is a network of semi-permeable limestone aquifers or "underground lakes". This is basically an underground cave system through which our groundwater flows (often replenished from surface water sources via sinkholes). Contaminants that make their way into this type of sensitive system through vectors such as horizontal drilling, buried and leaking pipelines, and spills can easily travel for miles underground from their source point, potentially threatening and permanently destroying this "unseen" but vital resource.

A 'blow-out" from the HDD drilling could also impact these aquifers (local, residential, and "municipal source" water wells) by clogging them with drilling mud and other contaminants including natural gas, which this proposed pipeline is seeking to transport. That is not a risk we can take. We all depend upon clean drinking water for health and survival. How long can you go without drinking water? What is it worth? It is not something we can put a price on.

It is time we STOP funding and permitting "non-renewable" fossil fuel industry infrastructure and methods (fracking/ natural gas extraction, traditional coal and mountaintop removal mining) which have proven to produce and leave environmental wastelands as standard by-products of the industries. The environmental costs of fossil fuels (extraction, refining, transportation, and utilization) in the form of air, water, land, and resource destruction are often unaccounted for "on the books" by the companies which promote and profit from them. Nonetheless these costs we must be accounted for. Many of the costs are simply "absorbed" by the local people, businesses and communities, in the form of polluted waterways, noise pollution (from construction and transportation traffic), air pollution (flaring, volatile organic compound seepage, spills, exhaust fumes from burning and processing, etc), and land destruction (drilling, earthquakes, soil erosion, land-slides, resource depletion), surface pollution (effluent holding ponds, drill pad infrastructure, pipelines, spills) and more.

Products from these fossil fuel industries (as is for this proposed pipeline) are often slated for export to international markets. This literally depletes our local economic and environmental resources for

commercial profit. Essentially this project would enrich Mountaineer Gas and its industry partners at the expense of our people, our communities, our environment, and our future. It's just not worth it.

I also feel this permit is premature in timing due to the fact that FERC has not issued their response from their Environmental Assessment for the 3.4 mile portion of the TransCanada pipeline, from Pennsylvania, through Maryland and into West Virginia. The C&O Canal National Historical Park, Harpers Ferry National Park and numerous other federally designated areas all the way down to our nation's capital would also be negatively affected by this project. I urge you to represent the will of the citizens of this region, for the sake of our livelihoods, the environment we all depend upon, and a brighter future for all of us, to DENY THIS PERMIT (WVR310880)! Thank you.

Response #30: See Section A. Response A and G for HD Drilling and HDD blowouts. See Section A. Response F for drinking water contamination. The project will cross approximately 5.3 miles of Karst in Berkeley County WV between Hedgesville and Exit 16 on Interstate 81. See Section A. Response B for the Karst mitigation plan. A requirement for other state permits or FERC's response is not required by the General WV Water Pollution Control Permit No. WV0116815 or from EPA's Stormwater Construction General Permit.

Comment #31: On behalf of the West Virginia members of the Chesapeake Climate Action Network, we urge the Department of Environmental Protection (DEP) not to grant Mountaineer Gas Company a General Water Pollution Control Permit to construct 23 miles of pipeline in the state. Furthermore, we request the DEP hold a hearing on this issue of significant public concern.

The proposed pipeline has the potential to impact 14 wetlands, one pond, and 67 streams. These potentially impacted streams include "high quality" streams such as Back Creek, Sleepy Creek, Dry Run, Cherry Run, Warm Springs Run. Many of these waterways flow into the Potomac River, which is the source of drinking water for millions of people downstream.

Mountaineer Gas Company plans to use horizontal directional drilling (HDD) to cross these high quality streams. This drilling method of controversial and prone to "blowouts." For example, this past summer, the Rover pipeline spilled over 2 million gallons of drilling mud and diesel fuel into Ohio wetlands. The Mariner 2 East Pipeline in Pennsylvania ruined 15 residential wells due to an intrusion into the aquifer from HDD methods. The well water is so polluted that Sunoco, the pipeline company, has to hook up these residents to the public water supply.

The pipeline will cut through fragile and porous karst formation, making the potential for a blowout even more likely. Residents are also at high risk for underground aquifer contamination and pollution spreading to local well water due to this karst geology.

Response #31: See Section A. Responses E and H for stream and wetland crossings. See Section A. Responses A and G for HD Drilling and HDD blowouts. The project will cross approximately 5.3 miles of Karst in Berkeley County WV between Hedgesville and Exit 16 on Interstate 81. See Section A. Response B for the Karst mitigation plan. See Section A. Response

B and F for the Karst mitigation plan and for drinking water contamination. A public hearing was held at Berkeley Springs High School on Tuesday January 9, 2018.

Comment #32: I am writing to express my concern over the Mountaineer Express Eastern Panhandle Project. The following issues are outstanding:

- Final mitigation or avoidance measures of geologically sensitive karst areas are not included in the application. Site-specific designs for stream crossing methods are not included in the application. Open cut crossings and underground boring is proposed, but the open cut method is not specified and there is no contingency plan for underground borings. No descriptions of stream bank restoration and stabilization are included in the application. Restoration plans for stream crossings must be included. The inspection frequency is not as stringent as other pipeline projects within the state. Inspections after 0.25 inch rain event should be required. No water quality monitoring is proposed. Monitoring is not required, but can be requested. Water quality monitors should be installed at sensitive stream crossings similar to the efforts being conducted along proposed pipeline routes in VA.

Besides the above, there is no proven need for this project. I understand this is an update, but we must move away from fossil fuels very rapidly if we are to save our planet, our health, and our lives. Natural gas is a dead end. Methane is killing the climate. You might not believe in climate change now, but you will very soon. We all will. And it's going to be ugly.

We must put our resources – money, time, R&D – into developing renewable energy and making it available to the majority of households. Until we do this, we can't say we have really tried! Solar, wind, geothermal, hemp, and MMJ has already but will continue to create more jobs, tax revenue, prosperity AND clean water than all fossil fuels combined!

Response #32: The project will cross approximately 5.3 miles of Karst in Berkeley County WV between Hedgesville and Exit 16 on Interstate 81. See Section A. Response B for the Karst mitigation plan. See Section A. Response B for the Karst mitigation plan. See Section A. Response E and H for stream and wetland crossings. See Section A. Response A for HD Drilling. See Section A. Response C for inspection frequency. And, See Section A. Response D for water quality monitoring. It is beyond the scope of the Oil and Gas Stormwater Permit to evaluate the need of a project.

Comment #33: I am submitting comments on the Mountaineer Gas Company's Stormwater Permit # WVR310880. The Stormwater permit application lacks critical information the WVDEP needs to certify that the project will be able to meet West Virginia's permit requirements.

Mountaineer Gas shows only disdain for West Virginia's citizens' concerns about the pipeline projects. Clean, unpolluted water is critical for our health and survival! If this company cannot demonstrate the safety of the environment they affect by their officials drinking directly from their site's runoff, we don't need or want their projects. Site specific designs for stream crossing methods are not included in the application. Open cut crossings and underground borings are proposed but the

open cut method is not specified and there is no contingency plan for underground borings. The method for underground boring, Horizontal Directional Drilling (HDD) has been known to cause problems on numerous pipeline construction project, most recently the Rover in Ohio and the Mariner East in Pennsylvania. Great caution should be taken when performing HDD in karst terrain. A contingency plan to prevent and respond to inadvertent returns from HDD must be submitted with their application.

Final mitigation or avoidance measures of geologically sensitive karst areas are not included in the application. Impacts in karst terrain have the potential to have long term impacts on groundwater resources. A karst mitigation plan is needed to ensure that construction does not have permanent and irreparable impacts in karst terrain.

No descriptions of stream bank restoration and stabilization are included in the application. Restoration plans for stream crossings must be included. Methods to permanently restore and stabilize stream banks are necessary to ensure no long term erosion issues following construction. WVDEP must require the applicant to provide information on stream bank restoration that details how they will permanently restore streams post-construction including whether natural stream channel design techniques will be utilized.

The inspection frequency is not as stringent as other pipeline projects within the state. DEP has recently required increased inspection frequency from a 0.5-inch rain event to a 0.25-inch rain event for the Mountain Valley, Atlantic Coast and Mountaineer XPress pipelines. DEP should also require increased inspections following a 0.25-inch rain event for the Eastern Panhandle Expansion Project.

No water quality monitoring is proposed for the project. The company should be required to install real-time monitors to collect water quality data at sensitive stream crossings. The Virginia Department of Environmental Quality is partnering with US Geological Survey to conduct in-depth monitoring on sensitive stream crossings for the proposed pipelines in Virginia. The same monitoring efforts on sensitive streams impacted by pipeline development should be conducted in West Virginia.

Thank you for the opportunity to comment on this permit.

Response #33: The submittal provides the DWWM with all of the required information in accordance with the States Oil and Gas Water Pollution Control Permit and includes a description of BMPs that will be included in erosion and sediment control plan sheets and the SWPPP and the Karst Mitigation and Avoidance Plan. See Section A. Response E and H for stream and wetland crossings. See Section A. Response A for HD Drilling. The project will cross approximately 5.3 miles of Karst in Berkeley County WV between Hedgesville and Exit 16 on Interstate 81. See Section A. Response B for the Karst mitigation plan. See Section A. Response C and D for inspection frequency and for water quality monitoring.

Comment #38: To the Department of Environmental Protection, W.Va: Speaking as a nearly lifelong resident of Morgan County, I strongly and vehemently oppose any permit that will green-light this

Mountaineer Gas Company pipeline. Every person who spoke up at the recent hearing in my town, Berkeley Springs — every single one, according to *at least* two sources (the Herald Mail of Hagerstown, MD and our local Morgan Messenger) — spoke in opposition to the proposed pipeline. The greatest concern expressed was the possibility of increased risk of quick-spreading water contamination due to the geology peculiar to our region, the porous limestone and dolomite known as Karst.

Speaking personally, I am also concerned about the Horizontal Directional Drilling (HDD) which has been proposed as a method of passing under several native streams here, including Sleepy Creek. A couple of years ago, Roanoke and some surrounding regions in Virginia, also a "Karst" region, were confronted with a similar potential pipeline. In my research on the matter, I discovered a document released by the Virginia Cave Board, part of which I excerpt below:
Q. Have sinkholes ever formed during the installation of a high pressure natural gas pipeline?
A. Yes, they have, and in fact this occurred in a well-¬¬documented incident...during the installation of a natural gas pipeline system in Florida. Unfortunately, this incident has been used as evidence by critics that all pipelines installed in karst are inherently unsafe and may induce sinkhole formation. However, the Florida incident occurred while the pipeline was under construction using a process called “Horizontal Directional Drilling” (HDD); and in the relatively soft and poorly consolidated limestone that occurs in that region. HDD requires enormous “tip pressure” to advance the borehole, and as a result of this it caused a “blow out” of the soft limestone and soil above it. It is for this and other reasons that the Virginia Cave Board does not recommend horizontal directional drilling within karst settings.

The full document and a link to a summary of the incident in Florida, may be found at the following link: http://www.dcr.virginia.gov/natural-heritage/document/faq-nat-gas-trans-pipelines-karst.pdf Further, my region is heavily reliant on the aquifers that are naturally part of this Karst landscape. A large proportion of Morgan County residents rely on well-water. If any contamination were to occur (during the construction process or otherwise) it would be devastating to residents and the native wildlife. And yes, there is a risk for explosion as long as there are underground caves, which there surely are. We already know Helderberg Limestone is present along Warm Springs Ridge (see the following link, page 17 http://morgancountywv.gov/Planning/Documents/HRC3-MorganCounty-FinalReport2006.pdf) which is prone to form caves. None of this sits well with me, and I'm not impressed with the Mountaineer Gas Company's attempts to reassure residents here. This must be stopped.

Response #34: The project will cross approximately 5.3 miles of Karst in Berkeley County WV between Hedgesville and Exit 16 on Interstate 81. See Section A. Response B for the Karst mitigation plan. See Section A. Response A and G for HD Drilling and for HDD blowouts, and See Section A. Response F for drinking water contamination.

Comment #34: I am writing in regards to the pipeline permit number WVR310880. This proposed pipeline is currently under review by your agency for permit approval. I don't not want the permit approved. Pipelines are not 100% safe. Pipelines can and do leak. When it leaks who will be

responsible to clean it up? How long will the clean up take? Any delay in any clean up will be to long. Any leak will be harmful to Morgan County's water and environment. It is not worth the risk.

Response #35: See Section A. Response F for drinking water contamination.

Comment #35: I am requesting that you do not authorize a permit for the above referenced application. This application is not complete in it plans to even describe stream bank rehabilitation among so many other deficits. This year alone this country has seen time after time pipelines burst, water sources contaminated and water habitats endangered for decades. Please, let's step back from this permit and allow there to be a reasonable and thorough evaluation of this application. Please deny it in its present form.

Response #35: The application submittal meets all requirements of the State's Oil and Gas Construction Stormwater Permit. See Section A. Responses E and H for stream and wetland crossings. See Section A. Response F for drinking water contamination.

Comment #36: I am writing to express my opposition to the DEP permit WV 310880, the stormwater permit for the pipeline proposed to go through Morgan County. My concerns: Destruction to land. Soil erosion. Contamination of streams, rivers. Disturbance of endangered species, including the wood turtle. Air pollution. Noise. Mainly, our water sources will be in grave danger

Please do not destroy another beautiful place, just to give more money to a few who have no interest in our area except to exploit it.

Response #36: The submittal provides the DWWM with all required information in accordance with the States Oil and Gas Water Pollution Control Permit and includes a description of BMPs that will be included in erosion and sediment control plan sheets and the SWPPP and the Karst Mitigation and Avoidance Plan. See Section A. Response E and H.

The project's environmental impact was reduced from 245.7 acres to 191.7. The acreage reduction was coordinated with the United State Fish and Wildlife Service (USFWS) during their review of federally listed endangered and threatened species and their designated critical habitats within Mountaineer Gas Company's proposed Eastern Panhandle Expansion Project Area. The USFWS stated that the project is not likely to adversely affect any federally listed endangered or threatened species. Tree clearing areas were selected to reduce the potential for impacts to Indiana bat and northern long-eared bat populations. These reductions resulted in a right-of-way reduction of generally 10-25 feet within forested areas. By reducing the LOD and tree clearing the impact to potential roost trees was reduced by 78% (from 9 to 2). These areas include a reduction in the LOD through the forested sections near Sleepy Creek and Back Creek. Both Sleepy Creek and Back Creek are proposed horizontal direction drill (HDD) crossings, and there is no proposed LOD within 175 linear feet of either creek. Air Pollution/Noise are beyond the scope of the Oil and Gas Stormwater Permit.

Comment #37: I am writing to express my opposition to the DEP permit WVR310880, the stormwater permit for the pipeline proposed to go through Morgan & Berkeley Counties. The amount of destruction to land, creeks, wetlands and the riparian buffer, not to mention the underground aquifer, will be unrepairable.

A general pollution control permit is not adequate in protecting our creeks, some of which feed into streams and the Potomac River, where the public receives their public water supply. A 'blow-out" from the HDD drilling could also impact many underground aquifers and local residential wells, by clogging them with drilling mud. This segment of pipeline construction has the potential for long-term impacts on up to 67 streams and 14 wetlands, and that is not a risk we can take. I also feel this permit is premature in timing, due to the fact that FERC has not issued their response from their Environmental Assessment for the 3.4 mile portion of the TransCanada pipeline, from PA, through MD and into WV. We need to move on to clean energy for more lasting jobs.

The West Virginia DEP should deny the permit request (WVR310880) from the Mountaineer Gas Company and TransCanada.

Response #37: The submittal provides the DWWM with all required information in accordance with the States Oil and Gas Water Pollution Control Permit and includes a description of BMPs that will be included in erosion and sediment control plan sheets and the SWPPP and the Karst Mitigation and Avoidance Plan. See Section A. Response A and G regarding HD Drilling and HDD blowouts. See Section A. Responses E and H for stream and wetland crossings, See Section A. Response F for drinking water contamination.

Comment #38: I am asking that you do not approve permit number WVR310880 for the following reasons:

1. Mountaineer Gas Company's application for this permit has not met the requirements for the WV DEP Oil & Gas Construction Stormwater General Permit. Failure to meet such requirements increases the risk of harmful environmental and ecological events.

2. It is reckless and environmentally irresponsible to allow the construction of this pipeline due to the underlying karst geology along much of proposed pipeline route. The instability of karst geology itself renders it impossible to guarantee the stability of this pipeline and increases the likelihood of pipeline fractures and the consequences of such fractures.

3. Gas pipelines, even those in non-karst areas, are associated with an unacceptably high number of explosions and leaks. Explosions pollute the air and harm or kill humans, animals, and vegetation in the affected area, which often is widespread. Leaks lead to contamination of aquifers, private water wells, and rivers or other waterways through which a pipeline runs. Such contamination negatively impacts humans and entire ecosystems in the affected area. The proposed pipeline route goes under many rivers and streams in the Eastern Panhandle as well as dangerously close to two schools. In Morgan County, there is no public water supply anywhere along the proposed route of the pipeline -

people rely on water wells. Water contamination along that route would put an unnecessary hardship on many Morgan County citizens. In at least one area of the pipeline route in Morgan County, the pipeline would go under the only road out of the residential area. If an explosion occurred in that area, residents would be trapped with no way out of an inferno.

4. The proposed source of natural gas for this pipeline is a Transcanada pipeline coming into Hancock, Maryland from Pennsylvania, and going under the Potomac River and C&O Canal before entering Morgan County, WV. Both of these waterways are used for recreation by millions of people. The Potomac River also provides drinking water for millions of people. Therefore, contamination of these waterways would negatively impact millions of people. The Maryland section of the pipeline has not yet been approved, so there is no valid reason for Mountaineer Gas Company to rush approval of its proposed pipeline in WV. Nevertheless, Mountaineer Gas Company says it will use its pipeline for storage if the Maryland section of the pipeline is not approved. Storage of what? Gas? Whatever it would store would still need to be carried to the pipeline by some means. Shouldn't the people along the proposed pipeline route be informed about what would be stored and how it will be transported to the pipeline?

You are entreated with the care of our environment. Please take my comments into consideration when making your decision regarding the permit for this pipeline. Thank you.

Response #38: The submittal provides the DWWM with all required information in accordance with the States Oil and Gas Water Pollution Control Permit and includes a description of BMPs that will be included in erosion and sediment control plan sheets and the SWPPP and the Karst Mitigation and Avoidance Plan. The project will cross approximately 5.3 miles of Karst in Berkeley County WV between Hedgesville and Exit 16 on Interstate 81. See Section A. Response B for the Karst mitigation plan. See Section A. Response F for drinking water contamination. See Section A. Responses E and H for stream and wetland crossings. This project does not cross the Potomac River.

Comment #39: Mountaineer Gas Company's application for the Eastern Panhandle Pipeline does not meet the requirements for the WVDEP Oil and Gas Construction general permit.

- Site specific designs for stream crossing methods are not included in the application. Open cut crossings and underground boring is proposed, but the open cut method is not specified and there are no contingency plans for underground borings.
- No description of stream bank restoration and stabilization are included in the application. Restoration plans for stream crossings must be included.
- The inspection frequency is not as stringent as other pipeline projects within the state. Inspections after 0.25 inch of rain event should be required.
- No water quality monitoring is proposed.

West Virginia's natural resources are ultimately being exploited by TransCanada, a company from another country who is trying to fracture U.S.A. soil! Mountaineer Gas Company is just one of the links in the big chain of companies working to destroy our land and vital water sources. After reading

the Permit application WVR310880, in addition to some of the bullet points made above I noticed some other concerning information:

- Page 8 mentions "Areas should be returned to preconstruction condition in terms of grade and vegetative stabilization. It's stated that it "Should be" but not "will be" returned- how about all of the trees that are planned on being ripped out?
- Groundwater Protection plan includes a worksheet for potential contaminants. If our water is poisoned and ruined there is NO return to preconstruction condition.
- Procedure designed to protect ground water at construction sites (47 CSR 58.4.11.2) Includes fertilizing with ammonium nitrate (which is water soluble). Poison.
- 47 CSR 48.4.11.8 states that every three months during the life of the construction activity the site will be inspected. Who inspects it AFTER construction…forever?
- In addition to the Potomac River being jeopardized, the last few pages of the permit application indicate 62 stream crossings would be affected. Unbelievable.

I am opposed to the Eastern Panhandle Expansion Project Pipeline and new gas pipeline installations. Pipelines and fracking natural gas are DESTRUCTIVE to the environment. Haven't we heard enough cries from people all around the globe who no longer have clean drinking water because of fracking wells, natural gas extraction and leaking pipelines? Can we not learn from past mistakes? It makes me sad that we have to beg our government to SAVE what potable water we have left on the planet! We can't drink money. One little leak in this proposed Eastern Panhandle Pipeline UNDER the Potomac River will negatively affect the drinking water for millions of people, plants and animals! Oil and water don't mix. It baffles my mind that there are people out there still in support of trying to create new pipelines when we all know deep down in our hearts that this business is bad for humans and wildlife. WATER IS LIFE!

We all need CLEAN water to survive. Think back to elementary school, when we were taught how the water cycle works…we are all in this together…you…me…everyone. West Virginia is the Wild and Wonderful state, let's do our part and try to keep it that way. Clean renewable energy is the way of our future and for future generations.

As you are the Director of the Division of Water and Management, I implore you to use the power that you have wisely, and DENY the permit(s) of any part of the Eastern Panhandle Expansion Project Pipeline.

Thank you for your time and careful consideration of protecting our water.

Response #39: The submittal provides the DWWM with all of the required information in accordance with the States Oil and Gas Water Pollution Control Permit and includes a description of BMPs that will be included in erosion and sediment control plan sheets and the SWPPP and the Karst Mitigation and Avoidance Plan. See Section A. Response E and H for stream and wetland crossings. See Section A. Responses C and D for inspection frequency and water quality monitoring.

The permit requires that the site be stabilized within seven days of reaching final grade. The permit does not require or specify what vegetation is planted. The GPP was acceptable. The permit does not require or prohibit what is used for fertilizer. The during the earth disturbing construction process the permit requires inspections once every seven calendar days for actively disturbed areas, 14 calendar days for restored areas and within 24 hours after any storm event greater than 0.5 inches per 24-hour period. The project does not cross the Potomac River.
See Section A. Response F for drinking water contamination.

Comment #40: The purpose of this letter is to implore you to not approve the above referenced permit. I am aware there's numerous organization and individuals who have opposed this permit for many reasons: Environmental risks to wildlife and potential hazards to water in addition to the risks of methane transport. There are many engineers, geologists and environment experts who have presented to this effect.

This action would not benefit the people of people of Morgan County and the risks do not offset any fabricated benefits or job expansion.
Please do not approve this permit.

Response #40: The submittal provides the DWWM with all of the required information in accordance with the States Oil and Gas Water Pollution Control Permit and includes a description of BMPs that will be included in erosion and sediment control plan sheets and the SWPPP and the Karst Mitigation and Avoidance Plan. It is beyond the scope of the Oil and Gas Stormwater Permit to evaluate the need of a project.

Comment #41: I am writing to URGE YOU TO DENY the above referenced permit for 23 miles of pipeline construction through Morgan and Berkeley Counties. A huge project like this cannot help but wreak serious destruction on our precious God-given environment. It has the potential to impact wetlands, ponds, and streams, including Back Creek, Sleepy Creek, Dry Run, Cherry Run, and Warm Springs Run.

The Horizontal Drilling Method that Mountaineer Gas Company Says it will use is controversial in its safety to our water. Similar projects have spilled millions of gallons of drilling mud and diesel fuel into wetlands as well as ruining residential wells in Pennsylvania. As a homeowner with a residential well near the Berkeley County border. I am concerned about the very negative impact this project will have on the Potomac River and nearby aquifers on which we depend.

Americans need to stop using fossil fuels as much as possible. I would much prefer a tax rate hike that would force people to curb their consumption than to approve this destructive project. This would improve not only our own lives, but the lives of future generations. We are responsible to God, our Children and grandchildren for the choices we make today.

Response #41: See Section A. Responses E and H for stream and wetland crossings. See Section A. Responses A for HD Drilling, and See Section A. Response F for drinking water contamination.

Comment #42: Out community and local economy are heavily dependent on the health of the environment due to agriculture and tourism industries. The pipeline is unnecessary and poses a huge, continuous risk to our fragile environment. Not only will it endanger 14 wetlands and 67 streams, but it will put a huge aquifer at rick that exists in our Karst geographical formations. I live less than a mile from the proposed pipeline and I know of several sinkholes between my house and the pipeline route. My own well was contaminated several years ago because of petroleum products entering the aquifer. What could I do if my water is polluted again? How can I live in an area that continuously poisons me and my family? I implore you, please help protect our state. Do not approve this permit and instead have a public hearing. If you want further information you can contact me at the address and phone number below.

Response #42: The submittal provides the DWWM with all of the required information in accordance with the States Oil and Gas Water Pollution Control Permit and includes a description of BMPs that will be included in erosion and sediment control plan sheets and the SWPPP and the Karst Mitigation and Avoidance Plan. It is beyond the scope of the Oil and Gas Stormwater Permit to evaluate the need of a project. See Section A. Responses E and H for stream and wetland crossings. The project will cross approximately 5.3 miles of Karst in Berkeley County WV between Hedgesville and Exit 16 on Interstate 81. See Section A. Response B for the Karst Mitigation Plan. See Section A. Response F for drinking water contamination. A public hearing was held at Berkeley Springs High School on Tuesday January 9, 2018.

Comment #43: I am asking you to please deny the permit named above for construction of the pipeline. I am worried about the impact it will have on the streams it will be crossing and possible contamination of the wells in that area. It is a known fact that the Mariner 2 East Pipeline ruined 15 residential wells due to an intrusion into the aquifer from Horizontal drilling methods. We are also at high risk for underground aquifer contamination and pollution spreading to local well water due to the Karst geological formations in our region. We also have 2 endangered species that inhabit the Sleepy Creek. One being the Wood Turtle and the other one is the Harperella plant which is only found in 12 places in the United States.
I do not feel that a general pollution control permit is adequate in protection our creeks, many of which feed into the Potomac river, which supplies water for public use. We need to protect our beautiful state and not let these companies whose only concern is their financial gain, regardless of how it impacts the residents whose lives will be negatively affected by this pipeline, come in an destroy our lands. This pipeline benefits no one whose land it is scheduled to cross.

This segment of pipeline construction has the potential for long term impacts on up to 67 streams and 14 wetlands. That is not a risk we can take. This permit is premature in timing due to the fact that FERC has not issued their response from their Environmental Assessment for the 3.4 mile of the

TransCanada pipeline from PA, through MD and into WV. I would like to request a local public hearing for this permit proposal and I urge you to deny this permit and grant us a speedy and local public hearing.

Response #43: See Section A. Responses E and H for stream and wetland crossings. See Section A. Response A for HD Drilling. The project will cross approximately 5.3 miles of Karst in Berkeley County WV between Hedgesville and Exit 16 on Interstate 81. The submittal provides the DWWM with all of required information in accordance with the States Oil and Gas Water Pollution Control Permit and includes a description of BMPs that will be included in erosion and sediment control plan sheets and the SWPPP and the Karst Mitigation and Avoidance Plan. See Section A. Response B for the Karst Mitigation Plan. See Section A. Response F for drinking water contamination.

The project's environmental impact was reduced from 245.7 acres to 191.7. The acreage reduction was coordinated with the United State Fish and Wildlife Service (USFWS) during their review of federally listed endangered and threatened species and their designated critical habitats within Mountaineer Gas Company's proposed Eastern Panhandle Expansion Project Area. The USFWS stated that the project is not likely to adversely affect any federally listed endangered or threatened species. Tree clearing areas were selected to reduce the potential for impacts to Indiana bat and northern long-eared bat populations. These reductions resulted in a right-of-way reduction of generally 10-25 feet within forested areas. By reducing the LOD and tree clearing the impact to potential roost trees was reduced by 78% (from 9 to 2). These areas include a reduction in the LOD through the forested sections near Sleepy Creek and Back Creek. Both Sleepy Creek and Back Creek are proposed horizontal direction drill (HDD) crossings, and there is no proposed LOD within 175 linear feet of either creek.

A public hearing was held at Berkeley Springs High School on Tuesday January 9, 2018.

Comment #44: I am opposed to this pipeline for the following reasons: High Risk of polluting drinking water in the Potomac, the 67+streams it will cross, and wetlands essential to wildlife. High risk of polluting ground water, wells, irrigation systems, farm ponds-due to the porous karst underground in this geographic area where water carrying other (perhaps toxic) substances can travel and pollute undetectable areas until it is too late. Danger of pollution due to drilling fluids as well as gas spills which are happening all of the U.S.

Response #44: The submittal provides the DWWM with all of the required information in accordance with the States Oil and Gas Water Pollution Control Permit and includes a description of BMPs that will be included in erosion and sediment control plan sheets and the SWPPP and the Karst Mitigation and Avoidance Plan. See Section A. Responses E and H for stream and wetland crossings. The project will cross approximately 5.3 miles of Karst in Berkeley County WV between Hedgesville and Exit 16 on Interstate 81. See Section A. Response B for the Karst mitigation plan. See Section A. Response F regarding drinking water contamination.

Comment #45: Mountaineer Gas Company's application for the Eastern Panhandle Expansion Project Pipeline does not meet several of the requirements for the WVDEP Oil & Gas Construction Stormwater General Permit.
I would like to focus on one of these: failure to adequately address hydro-geologic implications of the predomination of karst in the area proposed for this pipeline, specifically, final mitigation or avoidance measures are not included in the application.
As a commissioner on Gov. O'Malley's Marcellus Shale Safe Drilling Initiative, I observed how state and federal regulatory agencies ignore or minimize public health threats from the oil and gas industry. The significant threat to public health associated with this pipeline project is drinking water supplies, and horizontal directional drilling and other pipe installation and maintenance practices are a direct threat to water quality.

Material Safety Data Sheets do not exist for all compounds that may be used to horizontally drill beneath stream beds. Chemicals without Material Safety Data Sheets could be used to drill under critical drinking water supplies in West Virginia; in fact, toxicity of one-third of chemicals used by the oil and gas industry in drilling have not been researched, and we do not know their harms.

Horizontal directional drills use proprietary drilling fluids, meaning that the exact chemical composition does not have to be revealed to the public. There is an ongoing investigation by the Federal Energy Regulatory Commission into whether unapproved ingredients in a drilling fluid mix were used by the Rover pipeline operator, Energy Transfer Partners, contaminating surface waters in Ohio last year.

There are hundreds of drinking water wells in the Potomac River watershed in WV that could experience contamination through pathways existing in, or created by drilling, in karst. These wells draw from groundwater aquifers which could easily communicate contamination from HDD drilling muds or surface spills. In fact, karst hastens the migration of fluids.

TransCanada's own borehole assessment of Boring GO-6 on the West Virginia bank of the Potomac River points to possible routes of groundwater contamination and the lack of "any relevant groundwater table information." [9/21/17 TransCanada electronic filing with FERC, based on a 9/15/17 report by Intertek Professional Services Industries, Inc.]. This letter was issued as an addendum to the karst Mitigation Plan that was issued on 6/30/17. In this letter, which acknowledges lack of relevant information, the consultant stated their "opinion" and "belief" that water encountered during drilling operations was not a part of a regional aquifer.

The WV-DEP is tasked with basing permit decisions in available data, not on the beliefs and opinions of a pipeline operator who stands to gain significant financial benefits from downplaying concerns associated with this proposed project.

The absence of data does not mean the absence of karst and associated groundwater contamination routes. The absence of data means we don't know enough to make an informed policy decision.

WV-DEP should deny this permit based on absence of critical information.

Response #45: The submittal provides the DWWM with all of the required information in accordance with the States Oil and Gas Water Pollution Control Permit and includes a description of BMPs that will be included in erosion and sediment control plan sheets and the SWPPP and the Karst Mitigation and Avoidance Plan. The project will cross approximately 5.3 miles of Karst in Berkeley County WV between Hedgesville and Exit 16 on Interstate 81. See Section A. Response B for the Karst mitigation plan. See Section A. Response F regarding drinking water contamination. See Section A. Response A regarding HD Drilling.

Comment #46: The pipeline through Morgan County to Berkeley County runs through a karst geology that is so porous, it is used as an demonstration of rapid sub-terranean water flow. Where are the studies of the impact of drilling through this material. The pipeline should not be approved until this impact has been studied and made public. There is an obvious threat to wells and drinking water supplies in the area.

Also, application is deficient is mentioning water quality monitoring during the operation, stream bank restoration plans, and apparently, actual designs for stream crossing methods.
I ask you to delay approval of the MGC application until these issues are addressed in public.

Response #46: The project will cross approximately 5.3 miles of Karst in Berkeley County WV between Hedgesville and Exit 16 on Interstate 81. See Section A. Response A and B regarding HD Drilling and the Karst mitigation plan. See Section A. Response F regarding drinking water contamination. See Section A. Response D for water quality monitoring. See Section A. Responses H and E for stream and wetland crossings.

Comment #47: We would like to add our opposition to the application by Mountaineer Gas Company to place pipelines under the Potomac River and other streams in West Virginia. Our essential concern is for the impact that a failure in the pipeline could have on the quality of water that supplies our area as well as many others and on the overall tourism water brings to Berkeley Springs.

The uncertainty of the geologically sensitive karst areas requires that a more thorough study and plan be developed since no one seems to know exactly what would happen and how a problem would be contained. One thing we do know is that at some point the equipment made by man will fail whether by human error or by an act of nature. A failure that affects the land could spread more quickly and affect more living organisms than a failure contained in soil. Since water is involved, more stringent requirements should exist than for the placement of a pipeline on land. Those who would reap the monetary profit would never feel the consequence of a failure, only those deprived of their water will. Perhaps, Mountaineer Gas Company should be required to sign an agreement that if a failure occurs that affects the quality of water for anyone, the company will be required to pay to reinstate for any and all residents the same quality of water they enjoyed before the failure and without cost to the resident. Again, we oppose the construction of a pipeline under the Potomac River in our area and under other streams in West Virginia and anywhere in the areas of karst geology.

Response #47: This pipeline does not cross the Potomac River. See Section A. Response F regarding drinking water contamination. The project will cross approximately 5.3 miles of Karst in Berkeley County WV between Hedgesville and Exit 16 on Interstate 81. See Section A. Response B for the Karst mitigation plan.

Comment #48: I'm in need of some environmental protection. I live in Morgan County, West Virginia, where you are considering a permit for a fracked-gas pipeline under the Potomac River and through the county. I'm asking you to protect our environment from the following dangers:

- Fracking has a large potential to degrade groundwater plus some potential, depending on where it's done, to induce earthquakes. Even if the fracking itself is not done in West Virginia, we may share some of its effects.
- Natural gas carried by pipelines frequently leaks, causing air pollution and also further increasing the critical atmospheric methane-and-carbon load.
- Everyone knows that pipelines sometimes explode. Aside from the impact on air pollution and atmospheric carbon load, explosions often kill and maim people. Some of those people could be the very ones you are supposed to protect the environment for.
- Drilling through the karst of this area will potentially destabilize the rock and change the surface and groundwater patterns, which will potentially ruin or dry up drinking water sources.
- Drilling for a pipeline route under the Potomac will leave no access to the pipeline in case of leaks into the water or into the air.
- Pipeline right-of-ways will most likely be maintained with the use of chemicals that (1) may negatively affect surface water, groundwater, wildlife, farm animals, crops, and soil and (2) will be used without permission of, or consultation with, the land owners.

Why allow all these potential dangers when the potential benefits are so puny? In fact, the expected benefits may disappear soon: Fracking is controversial and may be discontinued. Natural gas is a fossil fuel, so its use may decrease quickly as the world turns to energy sources that are not carbon based. As more alternative energy comes to market, the expected users of the natural gas in this pipeline may find that other power sources are cheaper or more politically positive or less hassle. I can't say when or whether those things will occur, but I do know that our breathable air, drinkable water, healthful-food-producing soil, and survivable climate are not in such great supply or condition that we should risk them for minimal potential profit.

Please provide the environmental protection needed by Morgan County by not granting permit number WVR310880 and by not taking or allowing any other action that would permit a natural gas pipeline to be constructed under the Potomac River and through county land.

Response #48: This pipeline does not cross the Potomac River. The project will cross approximately 5.3 miles of Karst in Berkeley County WV between Hedgesville and Exit 16 on Interstate 81. See Section A. Response B for the Karst mitigation plan. The submittal provides the DWWM with all of the required information in accordance with the States Oil and Gas Water Pollution Control Permit and includes a description of BMPs that will be included in

erosion and sediment control plan sheets and the SWPPP and the Karst Mitigation and Avoidance Plan. See Section A. Response A regarding HD Drilling. It is beyond the scope of the Oil and Gas Stormwater Permit to evaluate the need of a project.

Comment #49: The permit should not be given to Mountaineer Gas (Eastern Panhandle Pipeline Permit WVR310880), I believe its purpose is a threat to the environments it runs through as well as the people whose land is now at risk. Its inapplicable benefits to the locals to which must house this behemoth. Its high potential for failure with explosive potential. Its complete lack of water quality monitoring or any intention of installing them later after construction.

It will not bring jobs as in order to cut down on training costs the construction will be conducted by people outside of state. The fracking that this pipeline encourages has devastating effects on the people who live near drilling wells, if mishandled and they have wells their main water source could be disrupted with devastating consequences. The high potential for failure in the pipelines as previously mentioned. People homes could be destroyed, or livestock killed, not to mention if the pipeline blows near a sensitive karst formation. All in all I'm against this permit and its consequences. From its possibility of failure to it's disruption of peoples homes, it's just an all around bad idea.

Response #49: See Section A. Response D regarding water quality monitoring. The project will cross approximately 5.3 miles of Karst in Berkeley County WV between Hedgesville and Exit 16 on Interstate 81. See Section A. Response B for the Karst mitigation plan. Economic impacts are beyond the scope of the Oil and Gas Stormwater Permit.

Comment #50: This letter is about the purposed Eastern Panhandle Pipeline; permit WVR310880. I, as well as many other people, do not support this pipeline. Some reasons as to why we do not support the pipeline are:

- Pipelines explode and leak. This pipeline will run by peoples' homes and water wells. If it explodes or leaks, people could be hurt and property would be damaged. Their water wells could be contaminated as well.
- Our town relies on tourism and one of our big draws are our fresh water springs. If the pipeline were to contaminate our springs, tourism would plummet. A great example of water contamination was when 2 million gallons of bentonite drilling fluid was spilled in an Ohio wetland during drilling for the pipeline.
- This pipeline is transporting fracked gas, which as you may know, is destructive to the environment and contributes negatively to Climate Change. During fracking Methane gas is released in huge quantities. Methane is a very potent greenhouse gas, 30 times more potent than carbon. If your job is to protect the environment, don't allow Climate Change to continue by voting for this pipeline.
- This pipeline is supporting fracking, which is furthering climate change. Climate change is destroying our earth and environment. So please, do your job and vote against something that will seriously harm our environment.

Response #50: See Section A. Response F regarding drinking water contamination. Discussions regarding Climate Change are beyond the scope of the Oil and Gas Stormwater Permit.

Comment #51: West Virginia Rivers Coalition, on behalf of our members and the partner organizations signed below, submit the following comments on Mountaineer Gas Company's Oil and Gas Construction Stormwater Permit (WVR310880) for the Eastern Panhandle Expansion Project. Mountaineer Gas Company's Stormwater permit application for the Eastern Panhandle Expansion Project (EPEP) lacks critical information WVDEP needs to certify that the project will be able to meet WV's Stormwater Construction permit requirements. WVDEP must deem the application incomplete and request the deficient information outlined below.

Some of the mountains traversed by the pipeline corridor in the Eastern Panhandle have steep slopes where the soil is moderate to severely erodible. Sediment and erosion control measures on steep slopes must go above and beyond what's typically required on level terrain in order to be effective at controlling erosion. No sediment traps or sediment basins are included as Best Management Practices (BMPs) on any of the construction sheets even though sediment traps or sediment basins are specified for use in accordance with the WVDEP Erosion and Sediment Control Best Management Practice Manual (2006/Rev. 2016) and in the WVDEP Oil & Gas Construction Stormwater General Permit Fact Sheet (2012). Super silt fences or belted silt fences with sediment basins and sediment traps must be required on steep slopes.

This project jeopardizes drinking water sources by crossing the wellhead protection areas for Berkeley Springs and Rocky Glen Housing Community. Pipeline construction will cause increased sediment and turbidity in nearby water sources. Increasingly turbid water creates the most significant treatment challenges for water utilities. Filtering additional sediment introduced from construction would increase equipment costs and operating expenses, which is why it is so imperative that the sediment control measures be enhanced especially in source water protection areas. DEP must require the company to submit enhanced sediment and erosion control measures when crossing source water protection areas.

Site specific designs for stream crossing methods are not detailed enough for DEP to determine the impacts to water resources. The method of crossing the majority of streams is listed as open cut, but what open cut method they will be using on which streams is not specified. There is no explanation included in the application that details whether the open cuts will be wet crossing with no water diversions or dry crossings where water will be diverted around the construction. The specific crossing method must be explained in their application so that DEP can determine how their crossing method will impact water quality and whether their BMPs are adequate.

Drawings of stream crossings are provided that detail the placement of trench plugs, silt fences, timber mats and the limit of disturbance, but these plans are not drawn to scale, meaning the actual conditions in the field will be different than the placement of proposed BMPs in the construction plans. WVDEP's Sediment and Erosion Control Best Management Practices Manual requires that

each set of contractor drawings have the scale included. Without this information, the contractor is unable to determine the specific placement of the BMPs as specified in the construction plans. DEP must require that construction plans be drawn to scale.

The construction plans call for Horizontal Directional Drilling (HDD) under sensitive streams; Back Creek and Sleepy Creek. However, there is no contingency plan included in their application. The HDD method, although leaving the stream bed intact, may encounter other issues such as releases of drilling mud at bore sites or what's commonly referred to as an inadvertent return. These incidents are not uncommon and have occurred most recently on the Rover Pipeline in Ohio and the Mariner East 2 Pipeline in Pennsylvania. Both of these pipeline projects had to be shut down while they addressed these issues.

Great caution should be taken when performing HDD. A contingency plan to prevent and respond to inadvertent returns from HDD must be submitted with their application. The applicant acknowledges that an inadvertant return is possible and has listed an emergency limit of disturbance on construction plans if such an incident were to occur; however, there is no other inclusion of contingency plans to address inadvertent returns within their application. Plans must be required that detail how the company will avoid such an accident and, in a worse case scenario, respond to an incident to keep drilling mud from impacting water resources.

As stated previously, Mountaineer Gas proposes to cross Back Creek, a high quality stream, using the HDD method with no plan in place to address inadvertent returns. Back Creek is also partially positioned atop karst geology and hydrology. There is no mention of the potenital impacts of performing HDD in karst terrain. Final mitigation or avoidance measures of geologically sensitive karst areas are not included in the application. The project crosses karst terrain at Tilhance Creek and North Mountain and continues through karst terrain until it terminates outside of Martinsburg, encountering approximately 5 miles of karst terrain along their proposed route. Construction in karst terrain has the potential to have long term impacts on groundwater resources. A karst mitigation plan is needed to ensure that construction does not have permanent and irreparable impacts to groundwater resources in karst terrain.

The Back Creek Watershed Protection Plan lists stream bank erosion and sediment as a source of non-point source pollution. "Unstable streambanks are present throughout the Back Creek Watershed. Problems associated with streambank erosion include increased sedimentation leading to high turbidity, suspended sediment, sedimentation of the stream substrate leading to reduced aquatic habitat, and a loss of valuable land. Sedimentation occurs when soil is washed from the land or streambanks into the streams, and is deposited on the stream bed. Erosion can be natural, but is greatly accelerated when land is disturbed without proper best management practices…" The segement where the EPEP proposes to cross Back Creek is listed as moderately eroded already. No descriptions of stream bank restoration and stabilization are included in the application. Restoration plans for stream crossings must be included. Methods to permanently restore and stabilize stream banks are necessary to ensure no long term erosion issues following construction. WVDEP must require the applicant to provide information on stream bank restoration that details how they will

permanently restore streams post-construction including whether natural stream channel design techniques will be utilized. As the Back Creek Watershed Protection Plan states, "Natural Stream Design (NSD) is a hydrologic design and implementation procedure that incorporates the geologic setting, and the form and function of a reference stream and floodplain, onto an impacted area poised for aquatic restoration. NSD techniques are recommended to be integrated into all channel or floodplain restoration and improvement projects within the Back Creek watershed."

The EPEP impacts occur within the Chesapeake Bay Watershed. Mountaineer Gas has submitted the Chesapeake Bay Addendum with their permit application. The Addendum states that no post construction stormwater management BMPs are proposed; however, permanent erosion control measures are needed to reduce erosion on steep slopes. The permit requires slope stabilization following construction. With no permanent BMPs proposed there is an increased risk of slope failures or landslides on steep slopes. DEP must require permanent BMPs to control erosion on steep slopes.
The Chesapeake Bay Addendum also requires the applicant to calculate the number of acres of land use pre- and post-development. The existing land use for forested land is listed as 142.8 acres. However under proposed land use, the forested land is listed as same as existing. This value seems incorrect. The amount of forested land will be reduced post-development because the pipeline right of way must be maintained and devoid of trees. The Addendum must be corrected in their application to account for the loss of forested land use within the project area.

In the Chesapeake Bay Addendum, the applicant states that the project does not lie within an MS4 Community. However, the Back Creek Watershed Protection Plan states, "Berkeley County qualifies as a MS4 (Municipal Separate Storm Water System) area and is subject to additional stormwater management permit requirements through WVDEP. All communities, municipalities and subdivisions should work with Region 9 and WVDEP's regional stormwater specialist to ensure high quality stormwater management measures are in place." The project should be required to comply with "WV Model Stormwater Ordinance Specifically Designed for Region 9." The Model is designed to: "limit the Post-construction Runoff rates to rates equal to or less than Predevelopment Runoff rates, include provisions that will improve water quality by reducing Nonpoint Source Pollution and nutrients, encourage flexible BMP requirements and Low Impact Development (LID) design criteria, provide an incentives program to encourage BMP features, and address the vast areas of Karst Terrain and specify BMP criteria in these areas." Because the EPEP is proposed within an MS4 Community, we request that DEP require the project to comply with this model.

In the 2016 Draft 303(d) List, WVDEP lists Sleepy Creek as impaired due to fecal coliform, CNA-biological and iron. Total Daily Maximum Loads were developed for the watershed in 2012. The permit requirements state, "Dischargers located in a watershed area where a Total Maximum Daily Load (TMDL) has been developed and approved by the U.S. EPA may be required to implement additional BMP's and/or conduct additional monitoring activities, as necessary to comply with an applicable waste load allocation." No water quality monitoring is proposed for the project. The company should be required to install real-time monitors to collect water quality data on Sleepy Creek to comply with TMDL requirements.

Increased turbidity levels above TMDLs are not in compliance with 47CSR2 – Requirements Governing Water Quality Standards. We request that DEP require the project to comply with the TMDLs established for Sleepy Creek. The permit states that sediment traps and basins can be required near stream crossings with TMDLs. However, there are no sediment traps or basins listed on the construction plan drawings. Enhanced BMPs and sediment and erosion control measures should be required for Sleepy Creek.

The Sleepy Creek Watershed Based Plan identifies a management measure of establishing a riparian forest buffer stating, "A tree and shrub buffer of at least 35 feet will be established and maintained along the stream corridor and/or water body to reduce excess amounts of sediment…" The project's construction plans call for the limit of disturbance up to the water's edge disregarding the management measures identified in Sleepy Creek's Watershed Based Plan. We request that DEP require Mountaineer Gas to adhere to the management measure and maintain a riparian forest buffer of at least 35 feet to reduce excess amounts of sediment from further impacting the already impaired waterway.

The inspection frequency for this project is not as stringent as other pipeline projects within the state. DEP has recently required increased inspection frequency from a 0.5-inch rain event to a 0.25-inch rain event for the Mountain Valley, Atlantic Coast and Mountaineer XPress pipelines. We request that DEP also require increased inspections following a 0.25-inch rain event for the Eastern Panhandle Expansion Project.

To conclude, The WVDEP has a responsibility to ensure the protection of the state's water resources through this stormwater permit process. Knowingly issuing the permit without that assurance violates the requirements of the permit. The WVDEP should deem this permit incomplete until Mountaineer Gas provides more detailed information on how they plan to temporarily and permanently control erosion on steep slopes, provide enhanced BMPs around sensitive streams, mitigate impacts in karst terrain and source water protection areas, repair the destruction of stream banks, prepare for and prevent bentonite spills and submit a corrected Chesapeake Bay Addendum. Mountaineer Gas must be required to show they can construct the project while protecting the water resources in Morgan County and Berkeley counties that thousands of individuals rely on. Thank you for the opportunity to have these comments considered.

Response #51: The submittal provides the DWWM with all of the required information in accordance with the States Oil and Gas Water Pollution Control Permit and includes a description of BMPs that will be included in erosion and sediment control plan sheets and the SWPPP and the Karst Mitigation and Avoidance Plan.

See Section A. Response F for drinking water contamination. See Section A. Response C for inspection frequency. See Section A. Response E and H regarding stream and wetland crossings. See Section A. Response A and G regarding HD Drilling and HDD blowouts. The project will cross approximately 5.3 miles of Karst in Berkeley County WV between Hedgesville and Exit 16 on Interstate 81. See Section A. Response B for the Karst mitigation plan.

Severely erodible steep slopes will be vertically tracked, and slope stabilization installed and where needed bleeder drain trench plugs directing construction stormwater out of the pipeline trench will be installed. Sediment basins/traps are not typically used for pipelines or linear projects in general. Linear projects use other regulatory-acceptable best management practices (BMPs). The linear aspect of the disturbance for these projects would make it difficult and generally ineffective to place a sediment basin in a location that would catch the drainage throughout the project sites since they traverse the terrain in a linear fashion.

The Chesapeake Bay Addendum form was corrected.

Advanced/Enhanced BMPs will be used in areas affected by TMDL iron impairments.

Comment #52: How can the pipe line be allowed to go through US park area's when a child is not allowed to take his little shovel and dig a whole in it? Look up what happened in Harpers Ferry a few years ago when a sewer line was installed in the park without permission.

Response #52: The Oil and Gas Stormwater Permit is not dependent on another agencies approval.

Comment # 53: The following comments pertain to permit number WVR310880. We urge you to deny this stormwater permit. As former president of the Sleepy Creek Watershed Association in Morgan County for 13 years, I have signed for grant funds in the thousands of dollars for projects to enhance the health of Sleepy Creek for residents, visitors and the flora and fauna along the creek. We received grants from the West Virginia Conservation Agency, Eastern Panhandle Conservation District, Chesapeake Bay Authority, U.S. Fish and Wildlife and others to improve the health of the creek. We worked with the WV Division of Forestry, the WV Natural Resources Division and WV Watershed Network as we planted trees to increase the riparian buffer. We enlisted local farmers to plant crops to increase the infiltration of rainwater to reduce runoff and sedimentation. We recruited homeowners to replace failing septic systems and install rain gardens. Although still listed as impaired, Sleepy Creek has shown vast improvement in numbers and species of vertebrates and invertebrates and flora, including the endangered Harperella and lamp mussel.

Granting the stormwater permit and allowing the building of the Mountaineer pipeline goes against all the residents of this county have worked for. The large-scale disturbance of the lands, deforestation, loss of sediment an erosion control from crops and plantings will set back the progress of the health of Sleepy Creek.

For the sake of Sleepy Creek, and other streams and wetlands in the pipeline path, we urge you to deny this permit.

Response #53: Sleepy Creek will be crossed via HD Drilling. See Section A. Response regarding HD Drilling. The submittal provides the DWWM with all of the required

information in accordance with the States Oil and Gas Water Pollution Control Permit and includes a description of BMPs that will be included in erosion and sediment control plan sheets and the SWPPP and the Karst Mitigation and Avoidance Plan. The erosion and sediment control plan sheets were submitted that are site specific to the project.

The project's environmental impact was reduced from 245.7 acres to 191.7. The acreage reduction was coordinated with the United State Fish and Wildlife Service (USFWS) during their review of federally listed endangered and threatened species and their designated critical habitats within Mountaineer Gas Company's proposed Eastern Panhandle Expansion Project Area. The USFWS stated that the project is not likely to adversely affect any federally listed endangered or threatened species. Tree clearing areas were selected to reduce the potential for impacts to Indiana bat and northern long-eared bat populations. These reductions resulted in a right-of-way reduction of generally 10-25 feet within forested areas. By reducing the LOD and tree clearing the impact to potential roost trees was reduced by 78% (from 9 to 2). These areas include a reduction in the LOD through the forested sections near Sleepy Creek and Back Creek. Both Sleepy Creek and Back Creek are proposed horizontal direction drill (HDD) crossings, and there is no proposed LOD within 175 linear feet of either creek.

Comment #54: I have a home on the Sleepy Creek in Berkeley Springs, WV. My husband & I have been working towards our dream on living there full time as our plan for our future. We only recently found out that the pipeline is planning on going under the creek 4 doors up from us & down the entire road that is the only access to our home.

Even if there is no unexpected accidents with the drilling under our creek (with 2 federally protected endangered species), the surrounding environment will be destroyed. The lovely shady road we take to our home will be barren forever as the pipeline crosses it back and forth. The clearcutting of the permanent easement (sprayed with pesticides to keep trees from growing back) will destroy the thing that WV most has to offer, wild, wonderful nature.

If our creek is polluted, our well tainted and our landscape destroyed, what are we left with? Who benefits from this? A handful of billionaires? We need a local public hearing so you can hear the concerns and fears of the residents who will be most affected.

Thank you for your time,

Response #54: Sleepy Creek will be crossed via HD Drilling. See Section A. Response A and G regarding HD Drilling and HDD blowouts.

The project's environmental impact was reduced from 245.7 acres to 191.7. The acreage reduction was coordinated with the United State Fish and Wildlife Service (USFWS) during their review of federally listed endangered and threatened species and their designated critical habitats within Mountaineer Gas Company's proposed Eastern Panhandle Expansion Project

Area. The USFWS stated that the project is not likely to adversely affect any federally listed endangered or threatened species. Tree clearing areas were selected to reduce the potential for impacts to Indiana bat and northern long-eared bat populations. These reductions resulted in a right-of-way reduction of generally 10-25 feet within forested areas. By reducing the LOD and tree clearing the impact to potential roost trees was reduced by 78% (from 9 to 2). These areas include a reduction in the LOD through the forested sections near Sleepy Creek and Back Creek. Both Sleepy Creek and Back Creek are proposed horizontal direction drill (HDD) crossings, and there is no proposed LOD within 175 linear feet of either creek.

A public hearing was held at Berkeley Springs High School on Tuesday January 9, 2018.

Comment #55: Please protect our water systems for the future generations. I worked on commercial fishing boats collecting biological data in Alaska and on the Eastern shore from Massachusetts to North Carolina for 5 years. I have seen what happens to wild life when the water systems become polluted. I have also worked in Cancer research labs for NIH so I am familiar with what happens to living cells when they become polluted with toxins. The profits from the pipeline are far outwade by the cost on the people, plants, & animals that depend on the Potomac if it where to become toxically polluted and the cost financially to clean up a mess. I can only hope that you vote with the idea that your great grandchildren will still be able to eat fish from the river once in a while & be able to swim without getting infections/sores. No on the Pipeline!

Response #55: The WVDEP is committed to protecting the streams of the State. See Section A. Response E and H regarding stream and wetland crossings. Economic impacts are beyond the scope of the Oil and Gas Stormwater Permit.

Comment #56: Please don't allow Mountaineer Gas to build a pipeline in WV. Any leak could be devastating to our citizens and denizens, not to mention expensive to clean up. Might even be cheaper for them to let the leak leak than to find, repair, and clean it (if cleaning is even possible.) We have a beautiful State here, let's keep it that way. Thank you.

Response #56: The submittal provides the DWWM with all of the required information in accordance with the States Oil and Gas Water Pollution Control Permit and includes a description of BMPs that will be included in erosion and sediment control plan sheets and the SWPPP and the Karst Mitigation and Avoidance Plan.

Comment #57: I am writing in regards to the pipeline permit number WVR310880. This proposed pipeline is currently under review by your agency for permit approval. I don't not want the permit approved. Pipelines are not 100% safe. Pipelines can and do leak. When it leaks who will be responsible to clean it up? How long will the clean up take? Any delay in any clean up will be to long. Any leak will be harmful to Morgan County's water and environment. It is not worth the risk.

Response #57: The submittal provides the DWWM with all of the required information in accordance with the States Oil and Gas Water Pollution Control Permit and includes a

description of BMPs that will be included in erosion and sediment control plan sheets and the SWPPP and the Karst Mitigation and Avoidance Plan. See Section A. Response F.

Comment #58: I am writing to Insist you deny the permit for the Mountaineer gas pipeline to pass under the Potomac River, through Morgan & Berkeley Counties. There is no economic benefit and the potential for catastrophic consequences would be a daily concern of all residents. Please do your job and PROTECT OUR ENVIRONMENT!

Response #58: This project does not cross the Potomac River. The submittal provides the DWWM all of the required information in accordance with the States Oil and Gas Water Pollution Control Permit and includes a description of BMPs that will be included in erosion and sediment control plan sheets and the SWPPP and the Karst Mitigation and Avoidance Plan. Economic impacts are beyond the scope of the Oil and Gas Stormwater Permit.

Comment #59: Please stand up for the people in West Virginia. Protect their land, water, and health as your agency is called the Department of Environmental Protection. Please do your job. Do not issue permits to gas companies the health of West Virginian for the sake of corporate gain.

Response #59 The submittal provides the DWWM with all of the required information in accordance with the States Oil and Gas Water Pollution Control Permit and includes a description of BMPs that will be included in erosion and sediment control plan sheets and the SWPPP and the Karst Mitigation and Avoidance Plan.

Comments #60: Don't build the pipeline! When is the DEP going to care about the citizens and environment of WV instead of the corporations that buy and pay for the politicians? What a bunch of sellouts! You should be ashamed of yourselves.

Response #60: The submittal provides the DWWM with all of the required information in accordance with the States Oil and Gas Water Pollution Control Permit and includes a description of BMPs that will be included in erosion and sediment control plan sheets and the SWPPP and the Karst Mitigation and Avoidance Plan.

Comment #61: The West Virginia Development Office offers its support for the Eastern Panhandle pipeline project. Columbia Gas Transmission, a subsidiary of TransCanada, on March 15 files an application with the Federal Energy Regulatory Commission to build a new 8-inch pipeline to bring gas 3.4 miles from Fulton County, Pennsylvania through Washington County, Maryland to link with a proposed Mountaineer Gas pipeline. Columbia hopes for federal approval by January 1, 2018 with a plan to have the new line under construction and in service by November 2018. Linking to the proposed Mountaineer Pipeline would provide much needed natural gas service to the Eastern Panhandle and stimulate economic development.

The availability of natural gas is critical for economic development opportunities in the region. If unavailable, the region will undoubtedly be fighting an uphill battle in terms of attracting outside

investment and business expansion opportunities. Development in the Eastern Panhandle has been on the upswing compared to other parts of West Virginia, however, additional supply of natural gas is needed to sustain this trend.

Berkeley County and its 110,000 residents have a steady supply of natural gas, however, with the ongoing economic development activities it's close to being tapped out. Jefferson and Morgan counties have no source of natural gas. The Mountaineer Gas proposed line represents much needed infrastructure to move West Virginia forward in terms of continued economic development opportunities into the future including additional jobs for West Virginia citizens. Thank you for you consideration.

Response #61: The WEDEP appreciates your interest in the Eastern Panhandle Expansion Project and your comments and concerns regarding economic development. Economic impacts are beyond the scope of the Oil and Gas Stormwater Permit.

Comment #62: The Western Potomac Economic Partnership (West-PEP) is a regional economic development organization that was created by Governor's Executive Order and includes economic development professionals from Berkeley, Jefferson, Hampshire and Morgan Counties. The West-PEP partnership was created to share limited resources and promote the area for job creation and private investment in the four most eastern counties in West Virginia.

I was asked to write on behalf of the partnership expressing support for Mountaineer distribution line proposed to provide valuable service to the citizens and businesses of the Eastern Panhandle. The pipeline is critical to the continued growth, safety and development of West Virginia's Eastern Panhandle and the surrounding region. This is not a transmission line to parts unknown. It will provide an energy source to projected new growth with in the eastern panhandle ultimately lowering the region's economic footprint for serviced areas.

Currently, the natural gas system in the Eastern Panhandle has nearly reached capacity. This area is one of the fastest growing areas in our great state, and we need to ensure that reliable energy infrastructure is in place to support future economic development.
A Storm Water permit is required from the WV Department of the Environment Protection for this project. It appears that the Mountaineer service line can be safely installed under creeks and streams using lateral drilling techniques and with careful use of best management practices for open cut crossings where applicable. Care and attention should be given where geological sensitive karst areas are known and proper methods for stream bank restoration and stabilization are considered necessary.

We ask the WV Department of Environment Protection to approve this permit allowing the gas project to move forward with sensible and necessary safeguards needed to protect the water of the eastern panhandle.

Thank you for positive consideration of our request.

Response #62: **The WEDEP appreciates your interest in the Eastern Panhandle Expansion Project and your comments and concerns regarding economic development, job creation, as well as your concerns regarding safety and care of this State's streams and sensitive karst areas where this project is located. Economic impacts are beyond the scope of the Oil and Gas Stormwater Permit.**

Section C. Public Comments and Responses

Comment #1: Hello everybody. Welcome you guys to Berkeley Springs today and manage to get to the healing spas and enjoy our clean water. The first thing I want to ask is that you deny this permit. Eastern Panhandle pipeline permit, it does not meet the requirements set by the West Virginia DEP oil and gas construction storm water general permit. There are no site specific designs. This proposed project is going to go across Sleepy Creek. Sleepy Creek is one of the most pristine creeks in Morgan --- in that whole east coast of the United States.

I'm speaking for Morgan County wetlands Watchdogs. We've made sure that things like the industrial park have not contaminated our fragile wetlands here. More than any place else in the state we're aware of how fragile our water is. Second I want to touch on that we are in contact with folks in Highland County, Virginia and currently assessment records show a very large drop in land values within a half a mile of proposed pipeline, over 20 percent. That --- in West Virginia this pipeline is going 23 miles --- and this is a half mile on each side of this. So for a solid mile for 23 miles we are going to lose over 20 percent of our tax revenues.

Lower tax revenues equals lower community service. This is going to be a disaster for our community. Third I wanted to --- to mention that Morgan County has overwhelmingly voted against zoning because we value property rights so much, yet the Kesecker Farm is being stolen by a multi-national corporation, a multi-generation farm.

The folks in Virginia have also noticed that when the pipeline construction goes through the farmland is so damaged that you cannot farm for another 50 years on that land. This pipeline makes my land essentially worthless. It makes most of the land of Morgan County worthless. I don't know who would ever move here when you know your land can be stolen any time one of our corrupt politicians feels like selling their soul. Thank you.

Response #1: The submittal provides the DWWM with all of the required information in accordance with the States Oil and Gas Water Pollution Control Permit and includes a description of BMPs that will be included in erosion and sediment control plan sheets and the SWPPP and the Karst Mitigation and Avoidance Plan. The erosion and sediment control plan sheets were submitted that are site specific to the project. See Section A. Response A for the crossing of Sleepy and Back Creeks via HD Drilling. Economic impacts are beyond the scope of the Oil and Gas Stormwater Permit.

Comment #2: Okay. Our representatives are wrong and so is what they are doing. According to the SRSrocco report the fracking bubble Ponzi scheme is about to collapse. And I quote, the crucial factor overlooked is the fact that the U.S. shale industry is stealing and swindling energy from other areas to stay alive. Not only is the U.S. shale industry $212 billion in debt, but it takes more energy to produce the oil and gas than what we get

from it. That's a negative return. This is a perfect example of failing --- failing energy return on investment, forcing an industry to cannibalize itself and the public to keep from going bankrupt.

At some point the Shale industry will collapse upon itself leaving one hell of a mess behind. While it's hard to predict the timing of event it will likely occur within the next two to five years. How long is it going to take to do this pipeline? Then from this morning's Peak Prosperity website comes the following. The increasing cost of energy is manifesting itself in prices --- higher prices for everything and in lower real wages.

We are compensated for this in the short term by using financial gimmicks to make energy affordable, but all we are doing is creating debt that cannot possibly be repaid. The crisis we're likely to face is going to look like the great depression. The math is straightforward, but cruel. This is fracking. What's going to happen?

My question then to the state is why if the fracking industry is going to collapse within the next two to five years why we are we even entertaining the notion of a frack gas pipeline that will tear up Morgan County for not? Either stop the pipeline now or wait five more years to see how this all plays out. Thank you.

Response #2: These comments are not applicable to the Oil and Gas Construction Stormwater permit. Also, economic impacts are beyond the scope of the Oil and Gas Stormwater Permit.

Comment #3: My name is Cam Trowbridge from Martinsburg. I'm a past present of the Opequon Creek project team which looks out for the welfare and water safety and quality of the Opequon Creek water shed, which encompasses eastern Berkeley County and southwestern Jefferson County. The people living in this area depend upon the Potomac River and karst area wells and springs for their drinking water, water for their livestock and agricultural irrigation, and for the purity of water for manufacturing such as the newly established Proctor and Gamble industrial complex.

What could be more harmful than drilling fluid and mud running off from a construction site into ground composed of karst? The research I have done shows that not a single gas pipeline crosses under the Potomac River between Point of Rocks, Maryland and Paw, West Virginia. Go to the National Pipeline Mapping System at PVNPMS.PHMSA dot, dot, dot.gov/PublicView. Plug in the States of Maryland and West Virginia and counties Montgomery, Frederick, and Washington, and Jefferson, Berkeley and Morgan. Why is there no pipeline under the Potomac from Point of Rocks to Paw Paw? Because the underlying ground is karst.

What applies to the Potomac River applies equally to the 14 Morgan and Berkeley County wetlands and 67 county streams Mountaineer proposes to dig under. The 23 mile long construction site Mountaineer Gas proposes can create storm water runoff of drilling

fluids and muds that can contaminate and pollute underground aquifers. No one has put a gas pipeline under this section of the Potomac River, or under the streams of northern Morgan and Berkeley Counties because of the dangers of drilling and laying a gas pipeline in karst rock, below the surface of the earth and at inaccessible depths, and at inaccessible locations under the water.

Drilling mud and fluid may well escape into underground fissures, caves and waterways. What is to contain these fluids as the drill progresses through unknown karst formations? It is too easy for a pipe to break as it lies in the air in a karst cave, unsupported by anything underneath it. How is that to be detected and once detected, how contained? What is to keep storm water runoff containing drilling fluid pollutants from flowing around a vertically orientated pipe, plunging down to an underground aquifer as the pipe attempts to burrow below Sleepy Creek, or Back Creek, or Opequon Creek or 64 other creeks Mountaineer intends to big under.

The West Virginia Department of the Environment created storm water permits not to facilitate gas pipelines but to protect the environment of West Virginia inhabitants from pollution and contamination. Please deny Mountaineer's application.

Response #3: See Section A. Response F for drinking water contamination. This pipeline does not cross the Potomac River. The project will cross approximately 5.3 miles of Karst in Berkeley County WV between Hedgesville and Exit 16 on Interstate 81. See Section A. Response B for the Karst mitigation plan. There are HD Drillings under Sleepy and Back Creeks.

Comment #4: Good evening everyone. I'm Frank Rodgers, Director of Cacapon Institute. Cacapon Institute opposes this gas line. As I spoke with the county Commission many months ago on the grounds of climate change that the burning of natural gas will just perpetuate the kind of flooding we saw in Berkeley Springs not too many years ago. I the case and there are also many hazards to the water shed, our own water sheds and the Potomac that I'm sure folks will speak about tonight. In this particular case on this particular permit we oppose the permit because it is moving far, far too rapidly in a dynamic situation.

Just last week's paper pointed out in the editorial that this pipeline and the blasting silica are being permitted at the same time. Has there been any --where is the study in that? Another major concern that the public should have on this is Mountaineer has not made public the route. It has been this, it has been that.

I have seen the states that go directly behind Hedgesville High School and underneath of the tractor trailer driving range runs the technical school and yet I'm told it's not going to be there. And yet there was --- there was survey space. So what is the path? What route will this take? There has to be a need for the pipeline. There has to be a --- this is a permanent process which implies damage. The Mountaineer company is being permitted to

harm us. Now, if there is a need, if there is a balancing justification for this I'm open to discussion, but so far the FERC line from Maryland has not been approved.
There is no gas to put in this line and they are going to start building it. So the permit should be denied until the Maryland FERC process has been at least approved and that - thank you.

Response #4: These comments are not applicable to the Oil and Gas Construction Stormwater permit. The project is available for the public on the WVDEP Electronic Submission System website.

Comment #5: My name is Lee Barron and I really like this stuff, this filtered water for my well and I'm a solar analyst. I live here locally on Pious Ridge Road and I grow all classes of plants. So I'm very dependent on this product and also the quality of the soil and trees as well. My vote is that this is too hazardous. There's a possibility to install the pipeline, that it's supposed to go three-quarters of a mile from my house up on Pious Ridge Road.

And it --- it just will compromise everything that I am doing. I don't understand it. I believe we're at the end of the fossil fuel age. We need to move on to cleaner energies. So what is happening here doesn't make sense to me. Thank you very much.

Response #5: These comments are not applicable to the Oil and Gas Construction Stormwater permit.

Comment #6: My name is Abigail Benjamin and I'm an environmental lawyer licensed in West Virginia. I intervened in the original permit case in front of the Public Service Commission on behalf of the Blue Heron Environmental Network. Today I am speaking on behalf of the West Virginia Rivers Coalition, a non-profit with over 7,500 supporters in West Virginia. The West Virginia Rivers Coalition will supplement my oral remarks with more technical comments.

The West Virginia DEP must deny this permit due to its many deficiencies. The permit is missing critical safety contingency plans and other information the West Virginia DEP requires.

Sedimentation and erosion---sorry. Sedimentation and erosion from pipeline construction is known to negatively impact West Virginia's rivers and streams. Dominion's G150 pipeline, a 60 mile, 8 inch pipeline built in the Northern Panhandle, received a fine from West Virginia DEP of $55,000 from 9 violations for sediment deposits that impacted 12 streams and waterways.

The Stonewall Gathering line, a 55 mile, 36 inch pipeline, received 53 violations and a fine of $110,000. More recently the Rover pipeline had to be issued a cease and desist order because their best management practices construction were appallingly ineffective.

Given this history of pipeline failures, Mountaineer Gas should have given us detailed safety plans for the permit. Missing information in this permit is on many levels including enhanced erosion control measures on steep slopes, karst geography mitigation plans, site specific stream crossing plans, stream restoration plans, and horizontal directional drilling contingency plans.

If Mountaineer Gas has submitted such an incomplete permit application how can the West Virginia DEP approve this permit and still protect our water resources? Some of the mountains traversed by the pipeline corridor in the Eastern Panhandle have steep slopes. This means the soil to moderate to severely erodible. Super silt fences or belted silt fences with sediment basins and sediment traps must be required on steep slopes. Sediment and erosion control measures on steep slopes must go above and beyond what is typically required to be effective at controlling erosion.

Many people have talked in detail about the karst geography, so I'll skip that section in honor of time. Pipeline construction causes increased sedimentation and turbidity in nearby water sources. The most significant treatment challenges for a water utility is increased turbidity. The pipeline route proposes to cross the wellhead protection for Berkeley Springs, where we are now. Filtering excess sediment introduced from pipeline construction projects will increase the operating expenses of Berkeley Springs.

To conclude, the West Virginia DEP has a responsibility to ensure the protection of the state water resources. That is why the West Virginia Rivers Coalition urges to be denied. Thank you.

Response #6: The submittal provides the DWWM with all of the required information in accordance with the States Oil and Gas Water Pollution Control Permit and includes a description of BMPs that will be included in erosion and sediment control plan sheets and the SWPPP and the Karst Mitigation and Avoidance Plan. The project will cross approximately 5.3 miles of Karst in Berkeley County WV between Hedgesville and Exit 16 on Interstate 81. See Section A. Response B for the Karst mitigation plan. See Section A. Response E and H for stream and wetland crossings. Severely erodible steep slopes will be addressed by vertically tracking the slope and slope stabilization will be installed, and where needed bleeder drain trench plugs directing construction stormwater out of the pipeline trench will be installed. Advanced/Enhanced BMPs will be used in areas affected by TMDL iron impairments.

Comment #7: Ann Bristow from Garrett County, Maryland. I'm a health educator and I was Commissioner of Governor O'Malley's Marcellus Shale drilling initiative where I learned how state and federal regulatory agencies ignore or minimize public health threats from the oil and gas industry. So I want to talk about those threats and I'd like to build on what Cam spoke about in terms of karst geology. Very little is known about karst geology in this part of the world.

It's not specifically mapped. It certainly is not in Maryland, so insufficient data to evaluate a project like this under anti permits that are being discussed. There are two ways in which West Virginia wetlands and waterways can be damaged during both pipeline construction and operational failures, leaks, ruptures and explosions. I want to draw your attention. I spent some time on this and come back to karst, to a report done by Intertech for TransCanada.

These are borehole analyses done on both sides of the Potomac and there's one borehole analysis. And if you go back to the FERC application you can look at this stuff. This is boring GO-6 in West Virginia. It's on the West Virginia shore of the Potomac River and in that they found a void which could be indicative of karst and the consulting firm for TransCanada says that, and I will quote, we do not believe that the purch groundwater table at this location is part of a regional aquifer or that it connects to the Potomac River or to the Chesapeake and Ohio Canal.

We do not believe - DEP is supposed to base their findings in science, not in beliefs from industry or industry contractors. The contractor further went to bibliography of the information that supports their belief and in that they say that there's inadequate data for groundwater in the region where this borehole was made. So basically what we have happening here in both Maryland and West Virginia with our regulatory bodies is they're taking something where there's a lack of evidence because research has not been done and they're equating lack of evidence with lack of harm or lack of potential harm.

Because we do not know where this is does not mean that there may not be harm. So kind of problems you get in karst geology that are not being talked about are obviously the blowouts during horizontal directional drilling. There are petro chemical products used in the drill bit. There are proprietary chemicals used in the drilling process and in the drilling muds.

There's currently a FERC investigation against energy transfer partners in Ohio for the railroad pipeline that they have used chemicals in that drilling that they should not have. And this is the same kind of horizontal directional drilling. The last is methane leakage incarceology. It can gather in areas like caves, like wells. It can migrate to cause explosions. I wish I had time to tell you more, but it's awful. Thank you.

Response #7: The project will cross approximately 5.3 miles of Karst in Berkeley County WV between Hedgesville and Exit 16 on Interstate 81. See Section A. Response B for the Karst mitigation plan. This pipeline does not cross the Potomac River. See Section A. Response G regarding HDD blowouts. There are HD Drillings under Sleepy and Back Creeks, See Section A. Response A.

Comment #8: Hello. My name is Alice Wilson and I live in Martinsburg and I wanted to thank you for holding this public hearing. It is extremely important. I am, as I said, current resident of Martinsburg since 2009. I was born and raised in the

Chesapeake Bay Watershed, fifth generation in Anne Arundel County, Maryland around Annapolis. I grew up on the shores of West River in a blue collar maritime family drinking well water, exploring the rivers, streams and marshes, and catching and eating local seafood. I have a Bachelor's degree in Biology, concentrating on the ecological studies of how all living things are interrelated and dependent on each other, and dependent on the local geology and careful use of natural resources. I am here tonight to speak about the terrible risks involved in trenching and drilling this land in Morgan and Berkeley Counties. Since I have lived in Berkeley County I have explored many of the creeks and streams in the area, and volunteered with the foresters and Audubon staff planting trees and shrubs, cleaning debris from the waters and creek sides. I have hiked past sinkholes.

This area is known to be karst geology. Karst is unstable, porous, easily dissolved and contains underground fractures that lead to caves, connects aquifers and contains holes which have collapsed forming sinkholes. Our waters from the mountain streams provide water to our wells, to farm ponds, municipal water supplies, springs that feed livestock and irrigate crops. Our wetlands are not just useless swamps, but are the nurseries of billions of tiny organisms that are the beginnings of the food chains, upon which all of our food supplies depend. Drilling and trenching in this area threatens to destabilize and pollute fragile karst lands and waters. The drilling mud is a pollutant.

When it is spilled, as it did in the Rover pipeline earlier this year, I believe it was in Ohio, the mud kills the tiny organisms it covers. It can seep into the aquifers and pollute water supplies for unknown distances due to the underground caverns, fissures and cracks in the karst. Wells, ponds irrigating water supplies and drinking waters for a large area can be rendered unusable.

Water is life. It is essential to nearly all life forms. There are no---there are---there are alternatives to gas, oil and other fossil fuels. There is no alternative to water. Please deny the permit for Mountaineer to drill in the Eastern Panhandle. Thank you.

Response #8: The project will cross approximately 5.3 miles of Karst in Berkeley County WV between Hedgesville and Exit 16 on Interstate 81. See Section A. Response B for the Karst mitigation plan. See Section A. Response F regarding drinking water contamination. There are HD Drillings under Sleepy and Back Creeks, See Section A. Response A.

Comment #9: Hello. I got to get the nerves out considering I know most of you I shouldn't be afraid to speak here. My name is Laura Steepleton. I'm a resident right here in Berkeley Springs and a concerned person about --- concerned about our water and the pipeline. Also part of the community group Eastern Panhandle Protectors. I have a lot of technical things I want to talk about, but first I just want to say why are we here doing this right now? This is ridiculous. I don't expect your agency to protect us.

I spent years in southern West Virginia where they blow up mountains for coal and they put rocks down and they say that's the stream that's been created, or they destroy the head water stream and they said that's okay. Well, towns are poisoned because they can't get

their water because of either coal or the gas industry. And you expect me to have faith that you're going to do the right thing? I'm sorry. I don't, but I imagine there must be some decent people in this agency and I beg you if there are, please stand up and do something right.

For you to speak out, for you not to be the agency that we come to terms of --- it's called don't accept protection. That's what we call West Virginia Department of Environmental Protection. And when I looked over this permit for Mountaineer Gas I was like I can't believe you're submitting this.

Mountaineer Gas told us when we tried to intervene in this process a year and a half ago thanks to Brent with the Potomac Riverkeepers, Abigail Benjamin who was representing Blue Heron Environmental Network.

Blue Heron Environmental Network were setting up and protecting that creek for 30 years. Mountaineer Gas and the Public Service Commission said we will follow all of the environmental sensitivities. We'll look at all of your records and your data. That creek is such a clean creek and we have endangered species in there. Mountaineer Gas has not contacted anyone to get any of our information, or records or talked to us about any sensitivities. They have treated our landowners like garbage, they have lied to them and they have manipulated them and you think we trust them to do the right thing for crossing our water?

No, we don't. Their requirements aren't even fulfilled. You don't have any mitigation for karst, you don't have any contingency plans for how you plan to drill under these creeks, horizontal threshold drilling under Sleepy Creek and Back Creek. We already know the risk in that, especially in karst geology. Drilling is --- karst not on the creeks, but underground the karst as well and nothing spread.

We've already had problems with other pipelines recently, the railroad pipeline, the mariner east pipeline where that has happened, where that has clogged people's well and they no longer have their own wells for drinking water. And they have to be hooked up on the back of lines. And there's so many more.

There's no water monitoring programs put in place, there's no --- I'm sorry. There is no inspection frequencies, aren't as stringent for other --- as they are with other pipeline projects in this state and there's not even a 401 meeting because it's under 12 inches. I beg of you to do the right thing. Deny this permit. We don't need this gas. There's 14,000 miles pipelines in West Virginia. They are not more economically prosperous than we are in this part of the state. We don't need this. Thank you.

Response #9: The submittal provides the DWWM with all of the required information in accordance with the States Oil and Gas Water Pollution Control Permit and includes a

description of BMPs that will be included in erosion and sediment control plan sheets and the SWPPP and the Karst Mitigation and Avoidance Plan. The project will cross approximately 5.3 miles of Karst in Berkeley County WV between Hedgesville and Exit 16 on Interstate 81. See Section A. Response B for the Karst mitigation plan. There are HD Drillings under Sleepy and Back Creeks, See Section A. Response A and G regarding HD Drilling and HDD blowouts. See Section A. Response D regarding water quality monitoring. See Section A. Response C regarding inspection frequency, and Section A. Response F regarding drinking water contamination.

Comment #10: My name is Patricia Kesecker. We have had a farm for pretty much 80 years plus, family. They came in and did a survey. First they said they was going to do a survey something along the powerlines. That was not true. They have come in and told us that they will take in the domain, which they did. They took us to court. We lost all of our rights. Now they want to go across our fields, 75 feet wide. They're going to hold 50 feet of that for themselves.

We pay the property taxes on that and if anything happens according to their contract we are responsible. I don't know if you saw in December the 5th. There was a family, a farming family in Illinois. The father was 59, the son was 30. They were putting a braised tile in the bottom area. The tractor got stuck, one pulled the other one out, hit a 20 inch gas pack line. Killed both the father and the 30 year old son. Two workers were injured and this is what was there. TransCanada, which is what we're starting that comes into Maryland is Columbia, comes into West Virginia it's Mountaineer.

And that's a slur on our Mountaineer country I think because they're calling themselves Mountaineer. This tractor you cannot even tell what it was. It melted it down. According to their contract they said we are responsible for any damages. Are they going to come back on this widow and have her pay to fix their 20 inch gas line at all after losing her---her husband and a son? There have so many excuses. They keep switching everything back, you know. We're not allowed to farm across it, we're not allowed to put tractors across it.

Well, we farm. We have two bigger tractors and a columbine. Suppose they put this---they're supposed to put it down start at three feet, now go to four to five feet. With our rocks they had to put one straight up and down and eventually the dirt wears away and you hit it, you're gone. But how do they expect us to be responsible for their damage? They're putting the danger in the ground.

Why should we be responsible for what they're doing to us an all? We took this to court. We're now facing a three man Commission that the court appoints five, we have to pick three, one for us, one for them and a middle one. And all after that we're going to be going for a 12 man jury in the summer. We have no contract to sign because they took everything away. They started out with 500---over 5,000 feet across that farm. They're going to the middle of the best

cornfield. We asked them to move it down. We didn't want it at all, we didn't want the money and all this, but they're still forcing us to do it.

And, well, we might be able to move it if you would consider this amount. If they can consider it for that why can't they just move it down further where it would be safer and not on top of the hill where a tractor go across it. They started out with the end of domain as a transmission line. Then before we went to the Commissioners they came along in a paper. Then they're going to be a distribution line. Well, now they're still building it.

So guess what? We're going to be a storage line. Now, 1,400 pound pressure that they normally run in this 10 inch line. They can jack that pressure up to 475 feet - 475 pound pressure in that line and it's going to be sitting there. Whether they get it under the canal or not, they're still doing it in West Virginia.

So the - the thing is we don't need it. They can just take everything away from us and, like I said, we are the eyes and ears of the valley, but when we hear the bulldozers it's too late.

Response #10: These comments are not applicable to the Oil and Gas Construction Stormwater permit.

Comment #11: Hello. Thank you for giving me the opportunity to - to testify today. I'm --- I'm Christiane Graham. I just bought a home in the Sleepy Creek area and I absolutely love this area in West Virginia. I'm asking the West Virginia Department of the Environment to deny this permit, to discharge storm water unsafely that is generated during pipeline construction activities by --- let me call them all three, TransCanada, Columbia Gas and Mountaineer Gas.

Both --- the three corporations have not demonstrated any safe pipeline building practices as seen in TransCanada's recent oil spill of 211,000 gallons in South Dakota. I understand the job situation in West Virginia is dire and people are looking for well-paying jobs. Let's not be fooled by the corporation's promises to create jobs. All the high paying jobs are filled already by trained staff, not residents of West Virginia for the duration of the project.

They are not interested in costly training, although they will hire for lower paying positions for one to two years, these are not permanent jobs, as they have done in Pennsylvania and New York. In these jobs many workers will risk their health as they handle highly toxic chemicals and transport water, a special West Virginia resource. The water impact is unmeasurable. Building this pipeline will destroy the fishing streams, i.e., the creek, and poison the wells in the panhandle. You have to ask yourselves is it worth it and I know I speak --- I'm preaching to the choir. I understand that. The two gas lines --- pipelines being built in Virginia have used --- by Mountaineer have used 17 billion gallons of free water between 2005 and 2013. Make no mistake that neither TransCanada, Mountaineer or Columbia Gas will be paying for any clean West Virginia water or pick up any of the associated health costs. I am directly affected by the pipeline that is projected to run within two miles of the home I bought in Morgan County. I've hired a local West Virginia contractor and I support the local economy. My well

water will be endangered by this pipeline, as water running through the fragile karst geology can rapidly dissolve and form pathways between ground and polluted surface water. As a person of faith I believe in the sacredness of the interdependent web of all life. My congregation leads conscious efforts to heal and sustain the planet that we call home. Many religious communities agree with scientific research that climate change is now an existential threat to humanity and our biosphere. The danger to all life on earth due to irresponsible burning of fossil fuels for energy production is unconscionable.

We are facing a climate crisis that is already causing suffering for people worldwide every day. And I ask you in this case actually the people from the Department of the Environment, what will you tell your children and your grandchildren when they are asking you, what did you do when the weather got worse and the climate completely started changing? So I thank you very much for listening to me.

Response #11: The submittal provides the DWWM with all of the required information in accordance with the States Oil and Gas Water Pollution Control Permit and includes a description of BMPs that will be included in erosion and sediment control plan sheets and the SWPPP and the Karst Mitigation and Avoidance Plan. The project will cross approximately 5.3 miles of Karst in Berkeley County WV between Hedgesville and Exit 16 on Interstate 81. See Section A. Response B for the Karst mitigation plan. See Section A. Response F regarding drinking water contamination.

Comment #12: I'm going to take you all's picture and the reason why I'm taking you all's picture is it's a great turnout. All right. My name is Brent Walls. I'm the Upper Potomac River keeper. I've been in this watershed for over ten years and the gas companies that we see tonight are the --- that have been put in their petition and their --- their application for this gas pipeline are bullies. They're bullies, they are users, they are liars. They are companies that only look for profits. That's what they're after. There's no benefit whatsoever to the residents of West Virginia and there are no benefits to the residents of Maryland.

They are users of a system. This is actually one pipeline, not two pipelines like what they have done very successfully at doing in the past two years. Mountaineer Gas pipeline with just a West Virginia permit and the TransCanada pipeline with a federal permit. They are one. They are dependent on each other. The Mountaineer Gas pipeline would not exist without the source from TransCanada.
So they are users of a system and that's how they get into this process and that is exactly how they're able to pull the wool over the state's eyes. I find it ironic that we are allowing a gas pipeline that does leak through karst geology. And might I remind you a significant portion of the Eastern Panhandle is karst geology?

And I also find it ironic that the State of West Virginia banned the disposal of fracking waste

in landfills that are situated in karst geology even though there are leachate protection systems in those landfills that are supposed to be state of the art and will protect our groundwater from any kind of potential contamination.

That was passed not more than two, I think three years ago and the --- the landfill that's here in Berkeley County cannot take or receive fracked waste because of the karst geology, but yet we're --- they're going to allow a pipeline to go through this karst geology. For the past decade or more gas companies and the authority developments in these counties have been looking to try to get gas to this area and they have not done so, and the reason is is because it's difficult to get anything under the Potomac River. This application is insufficient as been pointed out by several people tonight. It doesn't have a communications plan, it doesn't have a mitigation plan. There are no boring logs for any of the crossings that are --- for all these streams. We have no idea exactly where the karst geology is. We have no idea where these streams and the groundwater are connected. None of that information is provided in this application. It is absolutely insufficient, where if there's a spill on any one of these streams six hours or less will get to the drinking water intakes for Washington County and Berkeley County. Six hours.

Department of Environmental Protection needs to deny this permit because the FERC permit has not been approved. This is premature of DEP to pass and allow this permit to go forward until there is a decision made by the federal government and the federal agency FERC. Thank you very much.

Response #12: The project will cross approximately 5.3 miles of Karst in Berkeley County WV between Hedgesville and Exit 16 on Interstate 81. See Section A. Response B for the Karst mitigation plan. This pipeline in not crossing the Potomac River. The submittal provides the DWWM with all of the required information in accordance with the States Oil and Gas Water Pollution Control Permit and includes a description of BMPs that will be included in erosion and sediment control plan sheets and the SWPPP and the Karst Mitigation and Avoidance Plan. There are HD Drillings under Sleepy and Back Creeks, See Section A. Response A.

Comment #13: Brooke Harper. Maryland and D.C. Policy Director for the Chesapeake Climate Action Network who represents thousands across this region who are counting on both MDE and the West Virginia DEP to conduct a thorough and transparent review of stream and wetland crossings, upstream and downstream impacts, cumulative impacts and to ensure that Maryland and West Virginia's waterways are protected and its water quality standards are met.

And quite truthfully the only way to do that is to deny this pipeline and to deny this permit. I'm also a Hagerstown resident and I have great concerns that Mountaineer Gas Company's application of further pipeline does not meet the requirement for the following reasons. So, one, there's no mitigation or avoidance measures of geologically sensitive karst areas are not included in the application.

It encompasses over half of the Mountaineer gas pipeline route and the TransCanada pipeline crossing over the Potomac River. Karst increases the risk of a blowout spill and also increases the

magnitude of private and public water contamination if both pipelines were completed. In fact, if a blowout were to occur it could impact the drinking water of nearly 100,000 residents in Berkeley and Washington Counties. It also does not look at the entirety of the project which includes a TransCanada pipeline.

The entire pipeline project will impact streams, 10 wetlands in Maryland and 100 streams and wetlands in West Virginia. The pipeline route will pass through stream systems that have major flora and fauna and the clear path of 75 foot path requirement that's been cleared along the entire route of both pipelines through forest and farm land has the potential to pollute streams and wetlands with sediment runoff and reducing habitat for aquatic species.

In addition to these considerations site specific designs for stream crossing methods are not included in the application. Open cut crossings and underground boring is proposed, but not the method as specified and there's no contingency plan for underground borings. There's inherent risks with the construction of pipelines and the methods used to route them across rivers and waterways from storm water pollution to massive drills during the hydraulic directional drilling method.

This method uses millions of gallons of slick water typically laced with diesel fuel to drill longitudinally under rivers and other structures. The intense pressure combined with the volume of slick water has led to blowouts during the drilling process that can discharge millions of gallons of slick water into streams and wetlands. A blowout can also occur on the Mountaineer Gas pipeline causing the Sleepy Creek, Back Creek and other tributaries to the Potomac River. For these reasons we ask that you deny the storm water permit for the Mountaineer Gas and we ask that you do your due diligence.

Thousands of West Virginia residents have signed petitions in opposition to the pipeline. Hundreds have attended demonstrations and hearings such as these and families like Patricia Kesecker, who you just heard from, are fighting this pipeline by refusing to give their land over to a frack gas pipeline. The state emission of your organization is to use all available resources to protect and restore West Virginia’s environment and come to it with the needs of present and future generations.
We ask that you use all available resources and protect the needs of future generations by not locking communities into a frack gas pipeline that threatens their health, their well-being, safety and our overall climate. We ask that you deny this pipeline and the permit for it to go forward.

Response #13: The submittal provides the DWWM with all of the required information in accordance with the States Oil and Gas Water Pollution Control Permit and includes a description of BMPs that will be included in erosion and sediment control plan sheets and the SWPPP and the Karst Mitigation and Avoidance Plan. The project is available for the public on the WVDEP Electronic Submission System website.

See Section A. Response E and H regarding stream and wetland crossings. The project will cross approximately 5.3 miles of Karst in Berkeley County WV between Hedgesville and Exit 16 on Interstate 81. See Section A. Response B for the Karst mitigation plan. See Section A. Response G regarding HDD blowouts. See Section A. Response F regarding drinking water contamination.

Comment #14: Thank you. Yes, I'm Charles March from the Sleepy Creek Watershed Association. I'll keep my --- my comments brief. A lot of the folks have already spoke of some of the issues and so I won't repeat those. In 2007 the West Virginia Department of Environmental Protection in their evaluation of the Chesapeake Bay watershed area of West Virginia categorized Sleepy Creek as an impart stream.

That impairment has not changed. The impairment was based on high bacteria count and excessive sediment caused by ongoing stream bank erosion. That has not changed either. Sleepy Creek in this watershed was also identified as home to three endangered species. Operella, which is found only in ten places in the world, our medium sized wood turtles and eastern land mussels. That has not changed. Survival of these species within the watershed is ecologically important and primarily dictated by the local geology and stream pathology that these folks have mentioned.

Therefore, for all of this reasons of excessive disruption to Sleepy Creek and distributaries should be avoided and they should be avoided until we have concrete evidence and proof that these people are good for their word. Thank you.

Response #14: Advanced/Enhanced BMPs will be used in areas affected by TMDL iron impairments. Sleepy Creek will be crossed via a HD Drilling. See Section A. Response A regarding HD Drilling.

The project's environmental impact was reduced from 245.7 acres to 191.7. The acreage reduction was coordinated with the United State Fish and Wildlife Service (USFWS) during their review of federally listed endangered and threatened species and their designated critical habitats within Mountaineer Gas Company's proposed Eastern Panhandle Expansion Project Area. The USFWS stated that the project is not likely to adversely affect any federally listed endangered or threatened species. Tree clearing areas were selected to reduce the potential for impacts to Indiana bat and northern long-eared bat populations. These reductions resulted in a right-of-way reduction of generally 10-25 feet within forested areas. By reducing the LOD and tree clearing the impact to potential roost trees was reduced by 78% (from 9 to 2). These areas include a reduction in the LOD through the forested sections near Sleepy Creek and Back Creek. Both Sleepy Creek and Back Creek are proposed horizontal direction drill (HDD) crossings, and there is no proposed LOD within 175 linear feet of either creek.

Comment #15: Hi. I'm Meaghan. I represent myself, I represent the Eastern Panhandle Protectors and I represent the land and the water. This pipeline is they say being

brought in for economical development. So here's some statistics that I just read this morning. In West Virginia alone $9 billion was brought in in consumer spending for outdoor recreation. Nationwide $900 billion in consumer spending and just over $7.5 million direct jobs was brought in, more than the coal and gas industries combined.

And a little bit history of Southern Appalachia. From our early European settlement through the mid-1900s the predominant force in Appalachian economy was resource extraction. In fact, many of the regions national forest and parks were created as a reaction to ecological devastation caused by those industrial --- industries decades earlier.

President Franklin B. Roosevelt acknowledged as much during his address at the 1940 dedication of the Great Smokey Mountains National Park stating that we realize now that we committed excesses that we are today seeking to atone for. Dirty fossil fuels are resources of the past and they will only last for so long. The water and the land will continue to live on and we should protect it now for our generations and for future generations.

The world we live in is constantly changing in the face of technological development, so why are we still going back to these old ways that we know do not work? We need to train our young workers in fields that they will be able to continue to support themselves and their families in the future such as solar and wind energy. In doing this we protect our other resources such as outdoor recreation which bring in tourism and in turn economic wealth and development.

I live on a farm outside of Shepherdstown, which has the potential to be affected by this pipeline if there is a leak. We water all of our crops from our well and if the water's contaminated how can we sell things to people that they're going to ingest in our body --- in their bodies? And our farm runs off solar power. It's completely off grid. We don't use the gas, we don't need their pipelines.
So there's an example right there of a business that is thriving in this area that doesn't need this pipeline and none of us need it, and I don't think anyone here really wants it, so ---.

Response #15: See Section A. Response F regarding drinking water contamination.

Comment #16: I'm Susan Taylor-Dropp and I've lived here for 25 years because I love the mountains, the forests and Sleepy Creek. The subdivision I live in, among others, has been cut off by the state choosing to close our Burnt Mill Bridge access saying they don't have the money to rebuild it or repair it. In some respects that's fine. We don't mind not listening to the rumble of people going across the bridge, but I'm talking the current plan route includes a corner of our subdivision and the only access road.

How will mostly elderly residents safely leave the area if an emergency should happen during the installation or when it has been installed and operational? From Sleepy Creek it comes up a steep wooded hill under Burnt Mill Road close to Meridian Road cutting off any access in case of fire or other pipe land disaster. We'd be trapped. There are almost a hundred families that live in this area.

One would believe new pipelines would be safer than older ones, but a recent analysis of federal data completed by the Pipeline Safety Trust indicates new pipelines are failing at even a higher rate. I wanted to tell you as the initial President of Sleepy Creek Watershed we picked the wood turtle as our emblem. The wood turtle is listed as vulnerable in West Virginia and only occurs in the Eastern Panhandle. It hibernates three feet underground. What's that going to do when they start blasting? You don't have to be an environmentalist to care about this pipeline. You just have to care about your wells, your safety and your property values.

Landowners are likely to see a decrease in property values due to the restricted use of land on the easement area as well as the visual impacts of 50 to 100 foot by clear cut maintained constantly with deadly herbicides to treat any further growth that will seep into our waters and into Sleepy Creek. How will the limited road of Route 9 and the smaller feeder roads handle traffic while the construction is going on?

Large, heavy equipment, the pipes and other supplies needed to support construction of the pipeline. This will be going on for over two years. Route 9 is bad enough when you have a 30 mile --- 35 mile an hour driver in front of you, but what about large construction equipment? I'm a metal to the pedal person, so ---. Weight restriction signs were put up to discourage heavy trucks. How will you handle that. We oppose the subdivision where I live in and Sleepy Creek Watershed, too.

Response #16: These comments are not applicable to the Oil and Gas Construction Stormwater permit. Economic/Traffic impacts are beyond the scope of the Oil and Gas Stormwater Permit.

Comment #17: Hi. I'm Brady. I represent common sense. I don't know if it's an organization, but if it is everybody should join. A lot of people talked about all the technical aspects, the geology, the topography, the wildlife. Nobody's ever said whether or not it's a good idea and it was funny because on my way here my wife and I, we were talking about what we would say, how we would say it. And all I kept thinking about was a song that Frank Sinatra sung called High Hopes where he said, oops, there goes another rubber tree plant.

I don't know if any of you've ever heard of Fort Landy. It's a brainstorm idea where a guy decided he was going to corner the market on rubber. He was going to go to the Amazon, he was going to clear cut 5,000 acres of rain forest, displace two villages full of people, 10,000 people. 10,000 people. Build movie theaters, build them playgrounds, build factories, refineries. They paid --- they got road construction crews, house construction crews, everybody in there.

And, you know, the only thing they forgot to hire was a botanist that knew how to grow rubber tree plants. The Board never hired one single person who knew how to grow a rubber tree plant. As a consequence to that they - in 1928 he started it. In - what was it? Yeah, in 1945 synthetic

rubber was created. So at a loss of over $200 million somebody decided they're going to displace 10,000 people to grow rubber that they don't know how to grow because they never took the time to find out how so they can make money.

Then it was deemed unnecessary and they never produced one tire, not one tire in the entire time. So I say no to this on the basis of common sense and I would hope that everybody else would, too.

Response #17: These comments are not applicable to the Oil and Gas Construction Stormwater permit.

Comment #18: Hello. My name is John Qua. I'm the representative of 350 DC. We fight for climate justice in the environment in the District of Columbia. While you will rightfully hear much from West Virginia, Maryland, folks tonight this pipeline also threatens millions of resident's drinking water in the District of Columbia which the Potomac is our only source of drinking water.

We work for the City Council to respond to the Potomac pipeline because it threatens millions of District's resident's drinking water and because D.C. will have no legislative say in the construction of this pipeline. And they actually unanimously passed resolution, every single council member in opposition to this pipeline.

So I wanted to read you their words. We the undersigned members of the D.C. Council urge you to deny the Eastern Panhandle expansion project, prevent the construction of this pipeline and to protect all users of the Potomac Watershed. And while we - while we understand that these are residents of West Virginia, we must act to protect our shared interest in the Potomac River and the drinking water of millions of Maryland and D.C. residents.

As you know, this fracked gas pipeline will be directly beneath the Potomac and the C&O canal in Hancock, Maryland. For its project TransCanada proposes utilizing horizontal directional drilling, the same technique that resulted in such massive spills and contaminated the drilling fluid in Ohio that the federal energy and regulatory Commission banned its use for several months earlier this year. Ohio's pristine protected wetlands were contaminated by more than four million gallons of spilled drilling mud, which was later confirmed to contain toxic diesel fuel.

Furthermore, the rock formations beneath the Potomac River are comprised primarily of karst, a highly porous geology which can easily trap and transport pollutants. TransCanada has a long history of serious spills from its existing pipelines and underestimating the size of spills. A spill in the Potomac watershed whether in construction or operation of the Eastern Panhandle expansion could have a disastrous effect on the residents of D.C. because all of our drinking water comes from the Potomac River.

For all of these reasons we oppose the construction of the pipeline beneath the Potomac River, the drinking water supply for millions of residents in D.C. The District government has taken many steps to protect our residents from the health risks of lead in their drinking water and given TransCanada's track record we hope you will help us protect our residents from this latest risk to their health and safety. Please take action to protect our region from the potential disaster that could render the water of millions of people unsafe to drink and deny these permits. Signed by all members of the D.C. Council.

Response #18: This pipeline does not cross the Potomac River. The project will cross approximately 5.3 miles of Karst in Berkeley County WV between Hedgesville and Exit 16 on Interstate 81. See Section A. Response B. See Section A. Response F regarding drinking water contamination.

Comment #19: Good evening. My name is Kathleen. I'm also a resident of Washington, D.C., but I spent my whole life across the --- across the ponds of Maryland. And I've enjoyed the Potomac River all my life, so has my family. So as John said, I'm also from 350 DC and I'm here to represent also the D.C. residents, 681,000 of whom --- for whom the Potomac River is their sole drinking source. I'm presenting and I'm entering into the record a statement from George Hawkins, the General Manager of the D.C. Water and Sewage Authority who is also in opposition to the pipeline.

I am writing to you to share our concern D.C. Water with possible water quality impacts that could accompany the construction of the Eastern Panhandle Expansion project near Hancock, Maryland. As you know, the proposed pipeline would run beneath the Potomac River, which is the source of drinking water for the 681,000 residents of the District of Columbia. In addition, we provide drinking water to more than 17.8 million people a year who visit the nation's capital. Because of those enormous stakes, D.C. Water is extremely wary of any construction or endeavor that has the potential to jeopardize the clear waters of the Potomac River, the sole source of water for all those people.

Let me emphasize that last point. The Potomac River is the sole source of drinking water for the nation's capital. A decision on whether to approve this permit is based on your sense of the cost and benefits of that decision. The benefit seems to be marginally better transmission system for natural gas. The risk, although low in probability, is a --- is a catastrophic disruption of an essential and singular source of drinking water to the entire Washington, D.C.

Three years ago I warned of the dangers of fracking in natural forests and all the uncertainties that surround a long-term impact of hydraulic fracturing on source water across this country. In this case, the Eastern Panhandle pipeline would carry fracked natural gas to an existing pipeline that runs east, west. The company building the pipeline, TransCanada, wants to drill a pipeline under the Potomac River and the C&O Canal to transport that gas. Your decision about whether to approve a permit for this project could have serious impacts on water quality for many years to come.

For that reason, I encourage you to carefully weigh the potential for lasting damage to the entire water supply for this region before you award this permit. Unless there is an absolutely compelling need for this pipeline to support the public health and welfare of the national capital region, I would suggest deferring on the decision now by declining to approve this permit and holding your options open for the future.
Thank you in advance for your time and feel free to contact D.C. Water for more information.

Response #19: This pipeline does not cross the Potomac River. See Section A. Response F regarding drinking water contamination.

Comment #20: Okay. I'd like to thank the West Virginia Department of the Environment for having this hearing and for all of you for being here tonight. I'm Tracy Cannon, an area resident for 33 years. I live on Back Creek in Berkeley County, one of the creeks that would be affected if this pipeline goes through. It's one of the last healthy creeks in West Virginia. I've come here this evening to ask the West Virginia Department of the Environment given the name of your agency if you are okay with a pipeline going under the many streams in our region.

The pipeline road would be maintained, as Susan Dropp pointed out, with toxic herbicides that keep trees from growing on the path. All that herbicide would be washed down into our streams. I'm friends with many of the members of the Blue Heron Environmental Network who have been protecting Back Creek for 25 years now. I know how they'll feel if the endangered species that they've been protecting all this time were killed by those pesticides.

Is the DEP okay with the gas company manipulating landowners into signing away their rights for a pipeline that will be on their land forever? I know many of these landowners in Berkeley County and Morgan County and they've told me that they wish this project wasn't coming through their neighborhood. Many have concerns about their well water in an area where everyone has a well, and others have concern about potential explosion and some neighborhoods, as it has been pointed out, would be trapped behind the pipeline with no --- no way out if there were an explosion or other sort of incident.

Property owners in this area were told by land agents that they had to settle with the gas company or the company could seize their land through imminent domain and they might get nothing for their sacrifice. Many were also led to believe by these land agents that they will get free gas hookups or even free natural gas from this gas company and none of those things is true. Mountaineer Gas had in the Martinsburg Journal in June stating that they do not intend to give anyone in this region free hookups.

So many of these area residents are friends of mine, often longtime friends. Young people I knew when they were children have bought --- bought their first home or moved into a family home. Many have started families only to find out that a pipeline is coming within 50 feet of their well. I'm not okay with any of this and I hope you are --- I hope you all aren't either. I ask the

DEP to take these environmental and human costs into consideration when deciding whether to approve this pipeline. Thank you very much.

Response #20: Sleepy Creek and Back Creeks will be crossed via HD Drilling. See Section A. Response A for HD Drilling. See Section A. Response F regarding drinking water contamination.

Comment #21: I would take my three minutes to speak about the political economy of West Virginia, otherwise known as the corporate State of West Virginia. We --- and by the way of energy DEP to reject this based on what everybody before me said. I came in maybe five minutes late. Nobody has spoken up in favor of it. If you go through the list of our elected representatives who are up for election in November, none of them are here.

All of them are in favor. We live in a corporate State of West Virginia. Let's go out west. County Commissioner filed for in favor, two delegates from Morgan County Saira Blair, Daryl Cowles in the natural gas industry. Our state senator, the esteemed Charles Trump introduced legislation into West Virginia legislature written by the natural gas industry to fast track this pipeline to the Public Service Commission. Our member of Congress, Alex Mooney, in the pocket and U.S. Senator up for re-election Joe Manchin in the pocket and two years -.

When we held the first meeting Patricia Kesecker was at the first meeting and concerned about them coming to take her land and Senator Manchin came to Berkeley Springs to talk to the Pipelines Economic Development Authorities and they said there are people opposed. What are we going to do? And he said, don't worry about it, we can take their land with imminent domain. Don't worry about it. That was in the paper. That was actually reported in the Morgan Messenger. We can take their land with imminent domain, don't worry about it.

So nobody here believes DEP is going to do the right thing. Nobody here believes that. We're all opposed to it. Nobody believes it. Not one elected representative is here. They're all in favor of it. Why? Because we live in a corporate State of West Virginia and what we have to do this year is we have to run people against each one of those representatives.

Bob Thor, Saira Blair, Daryl Cowles, Charles Trump, Alex Mooney and Joe Manchin on the anti-pipeline candidate against each one. That should be our goal and that's doable whether or not the Democrats do it or not. Thank you.

Response #21: These comments are not applicable to the Oil and Gas Construction Stormwater permit.

Comment #22: Hi there. My name is Osha. Not much will get me in front of a crowd of people to talk about anything if you know me. I - I'm completely opposed to this pipeline. I think it is an absurd

idea speaking on behalf of the planet earth and the environment itself. I mean, it's our water. You're supposed to love and respect your mother earth, not screw her. That's really all I have to say.

Response #22: Please see Section A. Response D, and Response F.

Comment #23: My name is Lynn Yellott. My husband and I are two of the six million people whose water depends on the health of the Potomac. We've lived in our home in Jefferson County for 17 years. It borders the Potomac. Our well is 150 feet below the river surface and its water comes through karst geology. We have had it tested. It's good water. If our drinking water is polluted because of drilling for the pipeline from a rupture or explosion, we have no other source of water. We're too far from a municipal water source and that would be polluted anyway.

My husband swims in the Potomac. We kayak on the river and the Potomac is mentioned as an attraction on the many visit Jefferson County websites. It brings a large number of tourists who patronize local businesses from an independent bookstore, to boating and bicycling outfitters to --- and to restaurants, to name a few. We --- we need to make sure we protect the river as a recreation and drinking source.

And just as we avoided visiting Charleston, West Virginia, still like to avoid going there because of the Elk River spill, prospective visitors and new businesses will avoid our area with devastating economic impact if there's any fear of compromised water. At the hearing in Hancock we had heard from economic development officials and politicians. I won't call them representatives because they don't ordinary --- they don't represent ordinary people like us and they said that our area requires gas for economic development.

I'd like to know exactly what kind of businesses aren't coming here because there's no gas. I'd like to know how much money each of these officials is getting from the gas and pipeline corporations. And why aren't these proponents of development focusing on--- their energies on guaranteeing decent broadband for all of us and higher teacher pay in our area since so many of our good teachers work in neighboring states with much better salaries? These are the criteria businesses use when deciding whether or not to locate here and I hope that the DEP will ask them these questions.

And there is no reason to think that the pipeline corporations like the coal companies, won't treat West Virginia as a third world country, taking from state residents to enrich their out of state coffers. And as Russell pointed out or in one of his articles, Senator Trump's bill, S390, seemed to do just that. If we truly want to look to the future, I want to echo what some other people said earlier. That it's time to keep the fossil fuel and fossil fueled industries from lining the pockets of West Virginia politicians.

And the DEP should ask themselves what they'll tell their grandchildren, when as adults those grandchildren are contending with extreme weather and extreme upheaval, and ask what did you do to protect the environment? And what will you tell your grandchildren

when they ask what did you do to usher in an alternative --- an era of alternative energy sources that will turn around climate change? And I just hope that you will see that you're the Department of Environmental Protection. Thank you.

Response #23: This pipeline does not cross the Potomac River. The project will cross approximately 5.3 miles of Karst in Berkeley County WV between Hedgesville and Exit 16 on Interstate 81. See Section A. Response B the Karst mitigation plan. See Section A. Response F regarding drinking water contamination.

Comment #24: Well, this is an amazing turnout and what a gorgeous audience you guys are. I came over from Buckhannon, West Virginia, the heart of the state, in Upshur County where we are fighting ACP. And I came over here to support you people and it looks like you don't need a whole lot. You guys have got it going on. There's so many people here that I'm really amazed and really thinking on your feet and that's what we're asking DEP and our representatives to do now, is think on their feet.

I want to talk to you about water and morals and I'm not going to take forever, but this is a moral issue. These pipelines lead to more fracking. If anybody wants to come to north central West Virginia and visit Frackistan I will be happy to arrange a tour that will curl your hair and upset your stomach. There are people living without water who used to have good water. Now they're carrying their water. Their water was poisoned by fracking. They have nosebleeds, they have heart problems and they have breathing problems.

And I know that these are linked to the compressor stations that they live near because when they leave their home and go on vacation they feel good, and when they come back home they get sick again. This is what we're looking at, water contamination. That coupled with the climate crisis that we're in with the storms and the droughts and everything going crazy the water is going to become more and more precious. Fracking uses up to nine million gallons every time they frack.

They can frack a well up to eight different times. If this pipeline does not have a karst mitigation plan then there is absolutely no way that this pipeline should be allowed to proceed. And that's not the only thing it needs. Really it shouldn't be put in at all. No pipeline should be. We need to stop using gas. We need to phase ourselves out starting now and move to renewable energy. Solar, and wind and other renewable energies employ more people in 2015 than '16 in the coal and gas industries combined.

We know this. And we know that we can do hemp in West Virginia. We can have factories and we can protect our water and our tourism industry and our public health. West Virginia has the highest cancer rate of certain cancers in the nation and if you look at the communities that have injection wells from fracking, and widespread fracking and water loss you will see that those are the communities that have these health problems.

We can't separate pipelines from fracking and fracking from water. It's all connected. Water to public health and if you want to make people sick so that you can make a profit there's something really wrong with you and we don't want you here.

Response #24: See Section A. Response F regarding drinking water contamination. This pipeline does not cross the Potomac River. The project will cross approximately 5.3 miles of Karst in Berkeley County WV between Hedgesville and Exit 16 on Interstate 81. See Section A. Response B the Karst mitigation plan.

Comment #25: Thank you. I drove over from Upshur County tonight with April. And as she mentioned we have the ACP and next door to us in Lewis County they also have the --- the envy, too. Both of those are 42 inch and 1,440 psi. This 10 inch or 400 psi could cause catastrophic damage. I don't want to make it sound like it's --- it's small compared to the monstrosities that we have, but it's small today. If this is allowed --- they've already gotten their easements. They can go back and make it bigger later. They can add another pipeline parallel to it in the same easement.

This is a monster that will not stop growing and it's going to continue to grow because this gas is worth twice as much on the world market as it is here. And once they can get that price for it on the world market then they can double the price to everybody domestically. It's obvious. It's going to happen. They also have a free pass on this thing.

They're guaranteed a return on their investment for building the thing and the ratepayers are guaranteed to get the bill from the electric utilities because that's how it's set up. And even though the majority of the gas that goes through this pipeline will eventually make its way to export the U.S. ratepayers are going to be paying for it. That's most of you. There's probably one or two here besides me that are off the grid. I'm not paying for it. The other thing that your community needs to be aware of is when these pipelines go in there is virtually no concern for public safety whatsoever. People mentioned being trapped on uphill slopes, being trapped in neighborhoods where there's no way out. Over in Lewis County we have the stonewall momentum gathering line, which has had gas running through it now for two years. It operates --- it's a 36 inch line operating at 700 psi and there is no evacuation plan for anybody living within a mile and a half of that pipeline.

Nobody knows what to do in an emergency because that is not a requirement anywhere in the regulations that the people near the pipeline know what to do. You're all expandable to the industry, to the state and even to your own emergency management. Thank you.

Response #25: These comments are not applicable to the Oil and Gas Construction Stormwater permit.

Comment #26: This pipeline is a terrible idea. Why in the year 2018 would we support such a stupid idea as a fossil fuel pipeline running through our county? In the year 2017

in this country we spent $306 billion trying to recover from natural disasters caused by climate change. This is just the beginning of climate change and that's how much money we spent already. This is a stupid idea to be doing this. Why would we do something like this in the year 2018?

We need jobs in the State of West Virginia. Renewable energy supplies those jobs. Solar power currently supports three times the number of jobs of the entire fossil fuel industry. So why would we be investing in a fossil fuel project like this now? The reason is because our public officials are bought and sold by the fossil fuel industry.

They believe in profits over people and people die because of this so these companies can make more money and so our public officials can support their buddies and their parties to our detriment, to the detriment of every person in this room to the detriment of our children. We need to stop this. We need to draw a line in the sand and Russell was absolutely right. Our best protection is to get rid of every one of these elected officials as quickly as possible. Vote against every one of these incumbent by yourself.

We need to take back government. We need honest government that is here for citizens, not for corporate profits. Our lives are at stake. Let's not let this happen. Thank you.

Response #26: These comments are not applicable to the Oil and Gas Construction Stormwater permit.

Comment #27: Hello. My name is Sandra Waggoner. I oppose the Potomac pipeline, period, and all new and existing pipelines that are crisscrossing this country. Clean water, clean soil and clean air are the basic needs for our survival, human kind, animals. That's it. Clean water, clean air, clean soil. And anybody that can't see that is foolish, is foolish. An interesting thing in Wikipedia. I don't know if anybody already mentioned this or not.

I got in a little late and I apologize for that, but just in the 21st Century, so since the year 2000, there's over 590 reported pipeline instances severe just in our United States. Over 590. We cannot let this continue, we cannot let this continue. And I really didn't have anything prepared other than my sincerest hope that there'll be enough people that we will win and stop the Potomac pipeline.

On another note, if you're interested in any way --- I'm not --- for Arcadia Power. If anybody's interested in talking to me about that as an easy way for you to switch to wind at your current residence now and get off of coal is one small step we can do towards renewables if anybody's interested in that discussion afterwards. No Potomac pipeline. Thank you.

Response #27: This pipeline does not cross the Potomac River. The remaining comments are not applicable to the Oil and Gas Construction Stormwater permit.

Comment #28: Yeah, John Christensen. Good evening everybody. I think I know most of everybody here. John Christensen, Mountain View Solar. And was headed down to Charleston to do some lobbying work, but saw this public hearing and I --- I couldn't help it. Couldn't help but to stay here. I want to be with my friends and everything that's been stated tonight unequivocally right on. I mean, just perfect and I can go on and on and bore everybody, but how many people here have solar on their house right now? Look at this. Let's hear it.

There is an alternative to this pipeline. It's solar power. It's very easy, it's very cheap, get off the grid, connect to the grid and get your meter in credits. It's all good. You save money. This gas pipeline is not going to help anybody here and it could kill us. It could kill us. So I mean, the --- the decision on this is very easy.

You know, do you want to go to the future of clean energy, and clean air and clean water or do we want to stay in the past and drink this dirty fossil fuel crap that is thrust down our throat? I mean, even bottled water has traces of petroleum in it, so we want to get off of this. We want to get healthy, we want to have a future for our grandkids and our kids. Let's go solar and the heck with this pipeline. Thank you.

Response #28: These comments are not applicable to the Oil and Gas Construction Stormwater permit.

Comment #29: Hello. I'm Dawn White and I sat through two and a half hours of comments over in Maryland and most of those comments were extraordinarily well presented with facts. And tonight I was so pleased to hear someone bring up the political side of things, but I just want to tell you that most of us in Morgan County have never encountered costs.

I have a law practice in Martinsburg and I was consulted by a farmer who told me that his farm pond had completely disappeared in the course of five days after a neighbor drilled a residential well. That's karst. And let me tell you for a lawyer that's almost impossible to prove that the one caused the other. It's circumstantial, so I wouldn't worry too much about pollution of your water. I'd worry more about whether or not you're going to be able to find it and it doesn't come back.

That was a problem in Bunker Hill in '94 and I'm very glad I live in Morgan County until I went to my office one morning and discovered a hole about six feet deep that would have completely swallowed my car in the back alley that went down to my office building. Fortunately it was the responsibility of the City of Martinsburg, but they told me its karst. So that's my experience of karst. I also wanted to tell you that I think we have to recognize the politics behind all of this and I hear people talking about putting in new candidates and everything.

And, of course, that's a brilliant idea, but I think we also have to recognize that the Department of the Environment is going to be under extraordinary pressure in Charleston right now and continual until they make their decision. And the reason we have none of our elected officials, our local elected officials, here --- and Mr. Trump and Mr. Cowles both spoke in favor over in Hancock, is because they know that this signed mine stems to gain enormously from the availability of natural gas here in Morgan County. They are at the moment totally dependent on propane, so that might be another link that you should remember.

But I think that what you have to do is to contact and support the Department of the Environment in giving them the courage to do their work because for all of the presentations that we've had on behalf of the gas line never once have anywhere they spoken to the issues of concern to all of us. So right now write a letter to the Department of Environment and remind them that they represent us and not our local officials.
Thank you.

Response #29: The project will cross approximately 5.3 miles of Karst in Berkeley County WV between Hedgesville and Exit 16 on Interstate 81. See Section A. Response B the Karst mitigation plan.

Comment #30: Tom Langan. I live right off Pious Ridge Road near River View --- near RiverRoad. One thing I went to the Hancock organization and I see several organizers which did a great job over in Hancock. Thank you. But I heard that this TransCanada corporation is good citizen. It's going to take care of the pipeline and I just wanted to say that I found some statistics in U.S. according to census report only .00897 percent of companies make it to 100 years old. TransCanada is 67 years old.

The chances of it being here to be this corporate citizen that they say they are, to take care and maintain the pipeline are .009 percent. Think about the late '80s something was built and you had to go back to your contractor. They wouldn't be there. Thank you.

Response #30: These comments are not applicable to the Oil and Gas Construction Stormwater permit.

Comment #31: My name is Lindsay Pack. I'm not from West Virginia. I'm from Maryland. Originally from Texas and I don't know a lot about West Virginia, but I want to recommend a book that gives you a whole different perspective at least to me about West Virginia, its background. It's a short read, less than 200 pages. It's available on Amazon. It's called Written in Blood. Have any of you read it? No. I urge you, please read Written in Blood. Thank you.

Response #31: These comments are not applicable to the Oil and Gas Construction Stormwater permit.

Comment #32: Is the fact that plastic bottles are made from frack gas. Every bottle of water you buy is made from frack gas. And what do the fracking companies or pipeline companies give people when their wells go bad? They give them water in frack plastic bottles. They're still making profit.

Response #32: These comments are not applicable to the Oil and Gas Construction Stormwater permit.

Comment #33: Hi. My name is Jill Clark-Gollub and I live in Montgomery County, Maryland and I drove two hours up here today just to --- without prepared remarks, but to lend my solidarity to my brothers and sisters up here who are fighting this pipeline. For the good of all of us and as one of millions of Marylanders who drink Potomac River water I just want to put in my two cents to say please don't let the dying gas of the fossil fuel industry do any more harm to us. As people very eloquently said here, we can't have any life without water.

We can't have healthy communities in Maryland or West Virginia with this pipeline going through karst geology on our Potomac River being built by one of the fossil fuel industry's most harmful and irresponsible companies in the world. Thank you.

Response #33: The project will cross approximately 5.3 miles of Karst in Berkeley County WV between Hedgesville and Exit 16 on Interstate 81. See Section A. Response B, the Karst mitigation plan.