

**DEP Permit # E15-862**  
**DEP Permit HDD Reference # PA-CH-0199-000-RD**  
**DEP HDD # S3-0360**  
**Township – West Whiteland & Uwchlan**  
**County - Chester**  
**HDD Site Name – Biddle Drive Crossing**

**1<sup>st</sup> Public Comment Period**

<b>Commentator ID #</b>	<b>Name and Address</b>	<b>Affiliation</b>
1	Ali Callahan	
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4	A.Justin Hartman	
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9	Amberto and Theresa Mattioni 107 Shoen Road Exton PA 19341	
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11	Alexa and Kevin Manning 805 Graystone Lane Downingtown, PA 19335	
12	Rebecca Chancellor	
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15	Erin Gallagher	
16	Janet Marchetti Uwchland Township	
17	Monica Sekela West Whiteland Township	

18	Marcia L. Gentry	
19	George Alexander Chester County	
20	Ken Chancellor 313 Long Ridge Ln Exton, PA 19341	
21	Bernard Greenberg	Chairman, Southeastern PA Sierra Club Pipeline Committee.
22	Virginia Marcille-Kerslake Chester County	
23	John McGrath Exton, PA.	
24	Scott Greenly 715 N. Ship Road Exton, PA 19341	Township Manager, Uwchlan Township
25	Melissa Marshall, Esq. P.O. Box 408 1414-B Indian Creek Valley Road Melcroft, PA 15462	Mountain Watershed Association
26	Maya K. van Rossum 925 Canal Street 7 <sup>th</sup> Floor, Suite 3701 Bristol, PA 19007	Delaware Riverkeeper Network
27	Joseph Otis Minott, Esq. 135 South 19 <sup>th</sup> Street, Suite 300 Philadelphia, PA 19103	Clean Air Council
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29	Kathryn L. Urbanowicz, Esq. 135 South 19 <sup>th</sup> Street, Suite 300 Philadelphia, PA 19103	Clean Air Council
30	Danielle Friel Otten 155th Legislative District 631 Pottstown Pike Exton, PA 19341	PA State Representative
31	Katie Muth 338 Main Street Royersford, PA 19468	PA State Senator
32	Joshua Anderson 101 Commerce Drive Exton, PA 19341	Township Supervisor, West Whiteland Township
33	William and Cheryl Wardle 109 Shoen Rd., Exton, PA	

### **1. Comment**

I was just informed that Upper Uwchlan Township will be holding a special meeting to EASE Sunoco's restrictions for the pipeline construction?!?!?! They have proven numerous times that they are not capable of keeping my neighbor safe and the environment safe. This cannot pass. I am writing you to ask you to fight for your constituents and not allow a huge corporation to endanger people's lives simply to line their own pockets. This is ridiculous and I will not stay quiet about it. (1)

### **2. Comment**

The DEP must require a plan to protect the freshwater aquifer near the Shoen Rd. site. With each drilling attempt, Sunoco has breached the aquifer within the first several days of drilling. In August of this year, Sunoco breached the aquifer and groundwater discharged into the drill pit at Shoen Road. It was estimated that about 264,000 gallons of water per day was discharged during almost two months of drilling. The DEP must take their responsibility seriously for protecting clean freshwater, as it is a limited resource. Sunoco has submitted no plan to ensure the aquifer is not breached again. The geology of this region is complex, and an independent investigation of this geology must be undertaken without being overseen by Sunoco.

A drill log on the Shoen Road worksite in a Hydrogeologic Investigation report dated September 1, 2017 "shows limestone where one would expect phyllite" and another boring drilled near this entry/exit pit indicated a karst formation. This change in hydrogeology can have a potentially catastrophic consequence in an area with HVL pipelines underlain by karst.

Additionally, a whistleblower who was previously employed as a GES geologist and working on Mariner East construction in Chester County information has spoken out about falsified and editable reports among other deeply disturbing concerns. It's clear that independent analysis of both the hydrogeologic and geologic components of this site be undertaken before any more drilling is allowed.

Please do not issue a permit for the HDD-360 (which Sunoco is now calling "Biddle Drive") until the issues above are resolved and the public has a chance to comment on Sunoco's response. (2)

### **3. Comment**

Sunoco/ET must be stopped from breaching our aquifer and turning our clean water into industrial waste!!!

Sunoco has submitted a Horizontal Directional Drilling Analysis for HDD 360 in West Whiteland and Uwchlan Townships to the Department of Environmental Protection for re-evaluation.

Sunoco must be required to submit credible plans to ensure drilling the 20" pipeline will not impact the aquifer again, discharging vast amounts of groundwater; mitigate

the seeps that continue to have elevated pH; and ensure construction of the 20" does not create new seeps on this or other homeowners' property.

This will require a thorough hydrogeologic investigation, which Sunoco must also be required to provide.

In addition to hydrogeology, further geologic investigation is required: The HDD Analysis claims that there is no known or mapped karst geology along HDD 360, but that is false. The September 1, 2017 Hydrogeologic Investigation stated that the geologic structure in the area is complex and that a drill log on the Shoen Road worksite "shows limestone where one would expect phyllite" and another boring drilled near this entry/exit pit indicated a karst formation. This change in hydrogeology can have a potentially catastrophic consequence in an area with HVL pipelines underlain by karst.

These investigations must be conducted by independent geologists not overseen by Sunoco. Recently, a whistleblower who was previously employed by GES and working on Mariner East construction in Chester County information has spoken out about falsified and editable reports among other deeply disturbing concerns. This, in conjunction with false reports already submitted to the DEP for HDD 360, should make this requirement crystal clear to the DEP. (3)

#### **4. Comment**

I have the following comments on the HDD 360 in West Whiteland and Uwchlan Township:

- provide a credible plan to avoid more inadvertent returns.
- require a plan to protect the freshwater aquifer.
- provide a plan to stop the seeps that its drilling has triggered.
- investigations must be conducted by independent geologists not overseen by Sunoco.

Overall, please do not issue a permit for the HDD-360 ("Biddle Drive") until these issues are resolved and the public has a chance to comment on Sunoco's response. (4)

#### **5. Comment**

As a concerned West Whiteland resident living in close proximity to the Mariner East Pipeline project I ask, that as my state agency established to protect my safety, that the DEP ensure that at a minimum the following actions are completed to independent professional standards for project of this nature that puts the safety of people at risk.

I request that the following actions be required to be completed prior to any decisions on permitting related to the Mariner East Pipeline project for the HDD-360 (Biddle Drive):

\*Sunoco must provide a credible plan to protect the freshwater aquifer (must meet independent professional standards for such a study, not just Sunoco's summary view)

\*Sunoco must provide a credible plan to effectively avoid inadvertent returns (must meet independent professional standards for such a study, not just Sunoco's summary view)

\*Sunoco must provide a plan to stop the seeps that drilling has triggered in the past to ensure they do not happen again, their past approaches have not been successful and therefore they need to redone to a professional standard (must meet independent professional standards for such a study, not just Sunoco's summary view)

\*Sunoco must provide a credible professional plan to ensure that the drilling and digging for the 20" pipeline will not negatively impact the freshwater aquifer, again. Their procedures to protect the aquifer have not been successful in the past (must meet independent professional standards for such a study, not just Sunoco's summary view)

\*Sunoco must fund an independent professional hydrogeologic study of the project area

\*Sunoco must fund an independent professional investigation of the karst geology along the path of the HDD-360 project. to identify all the areas that are not safe for a pipeline to be constructed.

Until these studies have been completed in a academically professional manner and all issues resolved for the safety of the population potentially impacted by this project no permits should be granted, even on a temporary basis. (5)

## **6. Comment**

I am writing to urge the Department of Environmental Protection not to issue a permit for the HDD-360 (which Sunoco is now calling "Biddle Drive") until these issues are resolved and the public has a chance to comment on Sunoco's response.

This HDD segment has been problematic since drilling began in 2017, with two failed attempts before the most recent installation of the 16" pipeline.

Before the Department can re-evaluate this segment, Sunoco must be required to submit credible plans to ensure drilling the 20" pipeline will not impact the aquifer again, discharging vast amounts of groundwater; mitigate the seeps that continue to have elevated pH; and ensure construction of the 20" does not create new seeps on this or other homeowners' property.

This will require a thorough hydrogeologic investigation, which Sunoco must also be required to provide.

In addition to hydrogeology, further geologic investigation is required: The HDD Analysis claims that there is no known or mapped karst geology along HDD 360, but that is false. The September 1, 2017 Hydrogeologic Investigation stated that the geologic structure in the area is complex and that a drill log on the Shoen Road worksite “shows limestone where one would expect phyllite” and another boring drilled near this entry/exit pit indicated a karst formation. This change in hydrogeology can have a potentially catastrophic consequence in an area with HVL pipelines underlain by karst.

These investigations must be conducted by independent geologists not overseen by Sunoco. Recently, a whistleblower who was previously employed by GES and working on Mariner East construction in Chester County information has spoken out about falsified and editable reports among other deeply disturbing concerns. This, in conjunction with false reports already submitted to the DEP for HDD 360, should make this requirement crystal clear to the DEP.

Thank you for hearing the concerns of the residents of Pennsylvania and protecting our environment. (6)

## **7. Comment**

I live in West Whiteland township and I am horrified at the impact this pipeline is having on our community and environment.

There is a lot talk and info on our township website about new permits being granted to reroute or continue work, disregarding previous messes and impacts.

Why is Sunoco being permitted to continue work without a thorough and independent geological and environmental impact study?

When it has been proven again and again that there is water seepage, damage to wetlands and ground water, why are they being allowed to continue?

Now there are plans to issue a permit for HDD 360, without previous complaints being resolved or deeply studied for future impacts. Will DEP do a complete and independent geological survey to see why these sinkholes are forming and water table being polluted, or will they trust a company known to lie?

There is also a plan for digging under the wetlands near the Exton library and route 30. That is a terrible idea...that creek takes a lot of the excess rainwater and helps prevent flooding of the streets and businesses. Plus, it is home to a huge amount of wildlife and migratory birds. It is a beautiful untouched area and is often visited by families to watch newborn birds and geese. Please do not approve this plan either! And the number of trees that will be cut is horrifying!

Your one job is to protect the environment and make sure we leave the world a little better for our future generations. To help save what is being harmed. To avoid long term impacts on delicate ecosystems like wetlands and keep the water table clean.

Please, do your job. Stop this construction and protect what can still be saved. (7)

#### **8. Comment**

I implore you not to issue a permit for the HDD-360 (which Sunoco is now calling "Biddle Drive") until the known issues at this site are resolved and the public has a reasonable chance to comment on Sunoco's response, in a public hearing. This location has experienced significant issues since construction began in 2017. Unfortunately, this is not an isolated occurrence.

Before the Department can re-evaluate this segment, Sunoco must be required to submit a credible plan to ensure that drilling the 20" pipeline will not impact the aquifer again. They have already squandered an extraordinary amount of our precious drinking water and created seeps which continue to have elevated pH.

To create such a plan will require a thorough hydrogeologic investigation, which Sunoco must also be required to provide along with further geologic investigation. This must be conducted by independent geologists not overseen by Sunoco. You are well aware that a recent whistleblower has come forward to report falsified and editable reports among other deeply disturbing concerns. This, in addition to false reports already submitted to the DEP for HDD 360 should amply justify this requirement.

Sunoco has failed to perform anything but a simplistic alternate construction and resolute analysis and has not considered the no-build option i.e. don't build yet another unnecessary, dangerous pipeline especially given current and forecasted market conditions.

The DEP has failed to effectively regulate and monitor this project in the interests of the people of the Commonwealth since permits were initially granted. This is clear in the regular failures of Sunoco to adhere to what flimsy regulations we do have. The puny fines will NOT hold them accountable. The DEP must act to restore the confidence of the community and uphold the rights of the community to a clean, healthy environment. (8)

#### **9. Comment**

I would like to bring to your attention the water seep on Shoen Road.

We have lived less than 60 feet from the seep for 39-years and have never seen water coming out of the earth until Sunoco started drilling. I would like Sunoco to remedy this problem as one of my concerns are sinkholes.

We also understand that they want to add another pipe and want to be assured that this does not make the situation worse. (9)

**10. Comment**

Please do not issue a permit for HDD-360 until the many issues Sunoco's existing work has caused have been addressed and the public has been allowed to comment. They have impacted many residents' homes in my area to date and have not repaired or addressed the damage caused in some cases.

They need to provide thorough hydrogeologic investigation and further geologic investigation before any new work is carried out. These investigations obviously should be conducted by independent geologists not overseen by Sunoco.

Please do not let them cause further irresponsible damage without proper investigations and alternatives considered. (10)

**11. Comment**

As a resident in this area who is very concerned about the safety concerns regarding the construction of pipelines by Sunoco, we request that you do not issue a permit for HDD-360 until issues are resolved and there is public comment. Sunoco must complete thorough and complete analysis including a no build option. Independent geologists must be part of this analysis.

We need to know that this is safe and does not have any negative impacts to the environment, to property and public health.

Please enter this as a formal complaint and take this comment seriously. (11)

**12. Comment**

We are residents in the Whitford Ridge housing development and are concerned over Sunoco's drilling on Shoen Rd. We would like to request that a permit is not issued for the HDD-360 Biddle Drive site until there has been an independent hydrogeologic and geologic investigation (not overseen by Sunoco) to mitigate seeps and ensure construction of the 20" pipeline does not create new seeps on this or other homeowners' property. Thank you for considering our health, safety and the environment. (12)

**13. Comment**

As a resident of West Whiteland township and one who closely follows the impacts of Mariner East, I am writing to request that you deny a permit for the Biddle Drive project unless the following requirements are met.

Hundreds of thousands of gallons of groundwater in the aquifer has been drained daily. For Sunoco to continue, they need a strategy to protect our groundwater and assure that it will no longer be impacted by their drilling.

Sunoco needs a strategy for controlling new seeps like the ones that have occurred in private yards along Shoen Rd.

A plan needs to be in place for the cleanup and control of inadvertent returns.

Finally, independent geologists need to be hired to do hydrogeologic investigations in an attempt to mitigate all of the above.

West Whiteland residents have long suffered the failings of Sunoco. The public is tired of having to monitor Sunoco's failures...failures that have polluted our streams, drained our water resources and changed the lay of the land.

I implore you to please put the citizens and their concerns for our environment first!  
(13)

#### **14. Comment**

Yet again I take precious time out of my busy schedule to send a public comment for another HDD re-eval that will be absolutely rubber stamp approved by the DEP.

The mission statement of the DEP: "The Department of Environmental Protection's mission is to protect Pennsylvania's air, land and water from pollution and to provide for the health and safety of its citizens through a cleaner environment. We will work as partners with individuals, organizations, governments and businesses to prevent pollution and restore our natural resources."

Article 1, Section 27 of the PA Constitution: "The people have a right to clean air, pure water, and to the preservation of the natural, scenic, historic and esthetic values of the environment. Pennsylvania's public natural resources are the common property of all the people, including generations yet to come. As trustee of these resources, the Commonwealth shall conserve and maintain them for the benefit of all the people."

The entire Mariner East project is in direct contrast to the DEP mission statement and Article 1, Section 27 of the PA Constitution.

Private wells have been contaminated, the aquifer has been impacted, drilling mud has been spilled, and more. This site has been an environmental hazard since Sunoco/ET first started drilling for this egregious project in June 2017. Now, almost 3.5 years later it is abundantly clear that a pipeline does not belong here for many reasons. Deny the permits. (14)

#### **15. Comment**

I hope that the DEP is completely aware of all the falsehoods and misinformation that Sunoco has provided during this Mariner East project. It is time now to ensure that this project is halted until a thorough independent investigation of the seeping and geology can occur at the Biddle Drive or previously known as Shoen Rd. construction site.

The time is now to realize that an appropriate plan is not in place and Sunoco continues to rush through the process not abiding by the law and putting residents and taxpayers at risk! There is a chance now for your department to ensure the safety of residents and protect our fragile ecosystem that has been decimated during this process. Time to say no to Sunoco until there is a better plan in place with independent consultants. We need to know if our environment and homes are in danger while Sunoco reaps profits on our land.

Please ensure the right oversight and review occurs and until that can be determined no more permits or construction. We cannot allow this dangerous and haphazard project to continue. Please stand up to Sunoco and do what is finally right. (15)

**16. Comment**

It is your duty to protect our water.

Demand a credible plan to not impact aquifer again

Demand an investigation by an independent geologist. Sunoco cannot be trusted. Whistleblower complaint.

Why did they change the name of HDD-360? (16)

**17. Comment**

how do you refer to yourself as the Department of Environmental Protection when you allow such destruction for corporate greed?????

I am sick to my stomach to see that the ballfields that we spent weekends, hours, years watching our children play on sit destroyed! everywhere you look! It is despicable.

To finance corporate greed. May you all burn in hell for what you are allowing.

Trees, grass, wildlife, birds, deer bunnies.

Wells Destroyed. Yards demolished! Homes lost!! Property values in the toilet!

Oh yeah, what about the AMTRAK train lines? When something blows up with a Septa or Amtrak train strategically over top of it.

how is this permitted to happen??? (17)

**18. Comment**

Please don't issue a permit for HDD-360 (Biddle Drive) until the following issues are resolved and the public has a chance to comment on Sunoco's response. Geologic

investigations and hydrogeologic investigations are necessary and must be conducted by independent geologists not overseen by Sunoco!

**Loss of Groundwater.** With each drilling attempt, Sunoco has breached the aquifer within the first several days of drilling. In 2017 and 2019, this impacted homeowners with private water wells. As a result, 35 families had to transfer from their private wells to public water.

In August, Sunoco again breached the aquifer and groundwater discharged into the drill pit at Shoen Road. It was estimated that about 264,000 gallons of water per day was discharged during almost two months of drilling. This estimate is based on the twenty-two 18,000-gallon frac tanks on site (these are tanks used to store this water outside of allowable construction hours until it can be hauled away as waste) and on the frequency of 5,000-gallon water trucks coming and going. This equates to 183 gallons per minute, far more than the 25 to 50 gallons per minute Sunoco falsely reported in its HDD Drill Analysis. In addition, the discharge began August 1 (if not earlier), not August 10 as falsely reported.

Because no private wells are left to be impacted along this segment, the DEP allowed Sunoco to continue drilling despite this massive discharge of groundwater, in contradiction to the Department's responsibility for protecting clean freshwater, a limited resource.

Sunoco has submitted no plan to ensure this does not happen again. In the comments that you submit (see instructions below), insist that the DEP require a plan to protect the freshwater aquifer.

**Inadvertent Return of Drilling Mud.** During drilling on August 8, grey mud began to flow out of seeps across the road from the worksite around 9:15 am and continued through the next several hours, turning orange at some point before noon.

At 1:25pm a sandbag dam was constructed to contain the mud as per the DEP-approved Seep Monitoring Work Plan.

Around 3:30pm this dam failed, and muddy water flowed toward the creek. The DEP finally arrived after being alerted by the property owner and Rep Danielle Friel Otten two hours earlier. Only then did Sunoco stop drilling.

In its August 17, 2020 Restart Report, signed by GES geologists, Sunoco falsely claimed that mud first appeared in the seep at 3pm and flowed for only approximately five minutes and at that time the sandbag dam was constructed.

Sunoco has submitted no plan to avoid more inadvertent returns of drilling mud and improve their plan to contain should one occur. In your comments, insist that Sunoco provide a credible plan to avoid more inadvertent returns.

Seeps at Shoen Road. When Sunoco grouted the borehole in July 2017 after the first failed HDD attempt at this location, water started seeping and flowing out of the ground on private property on the north side of Shoen Road. In a Hydrogeologic Investigation submitted to the DEP on September 1, 2017, Sunoco claimed that once the pipeline was installed and grouting was complete, the seeps would no longer occur. The 16" pipeline is now installed, and grouting completed, yet the seeps continue.

Since Sunoco does not know how to stop the seeps, they are now attempting to falsely claim this emergence of groundwater is naturally occurring, despite acknowledging multiple times including under oath that the seeps were created by their drilling activities. Sunoco made this false claim previously in January 2020 and in response, the DEP received letters in January 2020 from West Whiteland Township, Senator Dinniman, Rep Friel Otten and the property owner refuting the claim.

This included refuting a Seep Investigation by Skelly and Loy dated July 2, 2018 (first introduced by Sunoco in January 2020) which Sunoco again references in this HDD Analysis. That investigation is inaccurate, speculative and inconclusive. Most notably it claims that soil pits were dug in the area of the seeps for the investigation. The property owner, herself a soil scientist, has stated unequivocally that no soil pits were dug, and the entire Skelly and Loy report should be considered suspect.

Furthermore, the water from the seeps has had an elevated pH since grouting three weeks ago and cannot even be diverted to the creek. Instead, the water is being pumped under the road to frac tanks requiring pumps, generator, and personnel impacting the homeowners 24/7 and creating an unsightly nuisance. It has been three weeks now, and the pH remains elevated. How does Sunoco intend on handling this if the pH does not decrease to allowable levels? This has not been addressed in the submitted HDD Analysis.

Sunoco has submitted no plan to stop the seeps. In your comments, insist that Sunoco provide a plan to stop the seeps that its drilling has triggered.

In addition to impacting private property, these seeps present a public safety concern because the water emerges along the path of Mariner East 1 buried just a few feet underground in soil near the transition from phyllite to karst geology. The water could be undermining Mariner East 1, risking a rupture.

In summary: before the Department can re-evaluate this segment, Sunoco must be required to submit credible plans to ensure drilling the 20" pipeline will not impact the aquifer again, discharging vast amounts of groundwater; mitigate the seeps that continue to have elevated pH; and ensure construction of the 20" does not create new seeps on this or other homeowners' property.

This will require a thorough hydrogeologic investigation, which Sunoco must also be required to provide.

In addition to hydrogeology, further geologic investigation is required: The HDD Analysis claims that there is no known or mapped karst geology along HDD 360, but that is false. The September 1, 2017 Hydrogeologic Investigation stated that the geologic structure in the area is complex and that a drill log on the Shoen Road worksite “shows limestone where one would expect phyllite” and another boring drilled near this entry/exit pit indicated a karst formation. This change in hydrogeology can have a potentially catastrophic consequence in an area with HVL pipelines underlain by karst.

These investigations must be conducted by independent geologists not overseen by Sunoco. Recently, a whistleblower who was previously employed by GES and working on Mariner East construction in Chester County information has spoken out about falsified and editable reports among other deeply disturbing concerns. This, in conjunction with false reports already submitted to the DEP for HDD 360, should make this requirement crystal clear to the DEP.

In addition to these concerns, Sunoco has failed to perform anything but a simplistic alternate construction and reroute analysis and has not considered the no-build option (simply leaving the second pipeline unbuilt) particularly in light of current and expected market conditions. (18)

#### **19. Comment**

I am writing concerning Biddle Crossing HDD-360.

Sunoco has drilled twice at this location, and both efforts have resulted in punctured aquifers, ground seeps, and drilling failure. Why will this time be different? The DEP must insist that Sunoco provide credible answers to these questions:

- How will renewed damage to the aquifer be avoided?
- How will the ground seeps, triggered by previous drilling, be mitigated, and how will new ones be avoided?
- Given the water problems, why has Sunoco not done a thorough hydrogeologic investigation?
- Why does Sunoco deny that karst geology is present, given that its own “hydrogeologic investigation” found limestone, and boring near the drill indicated karst?
- What is Sunoco’s plan for dealing with the potential for karst sinkholes at this location?

An independent geologist, not under Sunoco’s control, must be engaged to review the situation before Sunoco can be permitted to drill. (19)

#### **20. Comment**

I am a resident of the Whitford Ridge development on Shoen Road. I am very concerned with the problematic drilling practices Sunoco has exhibited at the site

knows as Shoen Road-Devon Drive. Their lack of concern for the underground aquifer and the negative impact on the environment leaves me questioning why permits continue to be issued for the Horizontal Directional Drilling. I'm also worried about the long-term potential hazards of the products being transported in this pipe.

Please hold off issuing permits for the HDD-360 until all issues can be addressed by an independent geologist not overseen by Sunoco. (20)

## **21. Comment**

This area has been a serious problem for Sunoco since the summer of 2017 when they first contaminated several private water wells. The problems continue to this day and mandate that construction on the 20" line be halted immediately.

The concerns include the following.

1. Loss of groundwater
2. Inadvertent returns
3. Continued seeps along Shoen Road

A comprehensive investigation by independent geologists is necessary as well as a thorough hydrogeologic study before any further efforts at constructing the 20" pipeline with HDD at this location. (21)

## **22. Comment**

I am writing to express my concerns over Sunoco's plans for the HDD 360 20" pipe installation, submitted to the Department of Environmental Protection for re-evaluation. I live directly across the road from the worksite on Shoen Road, on the property where the groundwater seeps that first appeared in July 2017 after the pilot hole was abandoned and grouted. I am acutely aware of what has occurred during this construction over the past three and a half years and have a master's degree in Soil Science and Geology.

HDD 360, currently being referred to by Sunoco as Biddle Crossing, has been problematic since drilling began here in 2017 and had two failed attempts before the most recent. The problems include the discharge of massive amounts of groundwater from the aquifer, inadvertent returns of drilling mud, and ongoing seeps on the north side of Shoen Road at our property. This October 2020 HDD Analysis ignores, downplays or falsifies these concerns and consequences which will continue to be of significance for the 20" installation.

### Discharge of Groundwater

Sunoco's Drill Analysis claims that groundwater discharge at the southeast entry/exit began on August 10 and that it only varied between 25 and 50 gpm. This is false: The discharge began on Aug 3 (if not earlier) and until grouting, was an estimated 264,000 gallons per day (183 gmp).

- Groundwater discharge began on August 3 (if not earlier), evidenced by water trucks coming and going from Shoen Road drill site to haul this water away as waste.
- Several times between 7pm and 7am on August 4 through August 7, Sunoco violated West Whiteland Township's noise ordinance in order to haul water offsite after allowable hours, disturbing residents and requiring township police intervention.
- Twenty-two 18,000-gallon frac tanks were installed at the worksite to handle the discharge from Saturdays 7pm to Monday's 7am.
- This frac tank capacity amounts to a discharge of 183 gpm. This is corroborated by the frequency of 5,000-gallon water trucks coming and going from the worksite.

Although no private wells are left to be impacted along this segment, this does not mean the DEP, which recognizes water conservation as a principal component in the protection of our state's natural resources, should not be deeply concerned about this impact to groundwater. Such a loss of clean freshwater should not be acceptable to the Department which is charged with protecting this limited resource.

The DEP must require Sunoco to submit a plan to ensure drilling the 20" will not impact the aquifer again, discharging large amounts of groundwater.

#### Inadvertent Return of Drilling Mud

In its August 17, 2020 Restart Report (Exhibit 9 - <https://ehb.courtapps.com/efile/documentViewer.php?documentID=49976>), Sunoco-contracted GES geologists claimed that on August 8 mud first appeared in the seep on the north side of Shoen Rd at approximately 3pm and flowed for only approximately five minutes and at that time the sand bag dam was constructed. This is false: The flow began as grey mud around 9:15am, the sandbag dam was constructed around 1:25pm and around 3:30pm it failed.

- Mud started emerging from the seep at approximately 9:15am. It was grey.
- By 12:38 pm the flow had turned to a thicker mud, orange in color, presumably from iron oxidizing bacteria as is regularly seen in this seep water
- At about 1:25pm (not 3pm as claimed) Sunoco constructed the sandbag dam.
- At approximately 3:30pm the mud flow suddenly increased, the sandbag dam failed, and mud was headed toward the creek. It was only then that Sunoco stopped drilling, over six hours after mud first emerged.
- Sunoco states that they did not stop drilling when mud appeared because while it met the field criteria for pH and conductivity, the color was not grey. However, when the mud first emerged it clearly was grey.

In addition to this failure of the Seep Monitoring Plan, it is deeply concerning that Sunoco submitted a false report, signed by GES geologists, to the Department of the events that occurred at Shoen Road on August 8.

The DEP must require Sunoco to submit a plan to better contain inadvertent returns at this site as well as avoiding them altogether.

### **Seeps at Shoen Road**

When Sunoco grouted the borehole in July 2017 after the first failed HDD attempt at this location, a seep was created on the north side of Shoen Road. In its HDD Analysis Sunoco again attempts to falsely claim this is naturally occurring seep, after previously acknowledging that the seeps were created by their drilling activities.

The Department received letters in January 2020 refuting this false claim from West Whiteland Township, Senator Dinniman, Rep Friel Otten and myself detailing:

- Sunoco's September 1, 2017 Hydrogeological Investigation concluded the seeps were the result of a "groundwater mound" created when the pilot hole was grouted.
- In Senator Dinniman's Petition for Emergency Relief hearing in May 2018, Sunoco testified under oath that they were responsible for the seeps.
- In July 2017 I met with West Whiteland Township staff and Sunoco to develop an agreement for how Sunoco would temporarily handle the flow from the seeps.
- In December 2018 Sunoco did further work on the north side of Shoen Road to keep water from flowing on the road and creating an ice hazard.
- The seeps were never present at any time in the 16 years we have lived here. Our neighbors who have lived in their home for past 38 years and whose family owned this property state that the seeps were never here prior to July 2017.
- The Seep Investigation by Skelly and Loy dated July 2, 2018 (which was introduced by Sunoco in January 2020) is inaccurate, speculative and inconclusive. And it claims that soil pits were dug in the area of the seeps for the investigation. As a soil scientist, I am very familiar with this field work. I state unequivocally that no soil pits were dug, and the entire Skelly and Loy report should be considered suspect and stricken from all submissions from Sunoco.
- Not included in these letters is the more recent finding of a geophysical survey conducted by Rettew in February 2020 (Attachment D in Sunoco's HDD Analysis) that water is emerging from where the HDD leaves rock and following the grouted pilot hole through soil to the location of the seeps.

Since July 2017, the seeps have emerged on the north side of Shoen Road on our property or the road allowance below. On October 3, 2020 after grouting was complete, flow from the seeps increased in the rock swale and uphill on our property and briefly turned muddy. Since then, they have run clear and emerge from the ground on our private property on the slope above Sunoco's temporary workspace.

In their September 1, 2017 Hydrogeologic Investigation, Sunoco predicted that once the grouting was complete (as per Scenario 4), the seeps would no longer occur. Grouting is now complete and yet the seeps continue on our property: The plan in Sunoco's Hydrogeologic Investigation has failed.

There is no plan to stop these seeps and no plan to ensure seeps will not occur on other homeowners' property with construction of the 20" pipeline. Geophysical testing performed by Rettew (included as Attachment D in the HDD Analysis) in February 2020 identified two areas on the hillside across from the Shoen Road worksite and along Shoen Road that are at increased risk of subsidence and seeps from this construction. These areas include all four private properties on the hillside:

In addition to impacting private property, the current seeps present a public safety concern because the water emerges along the path of Mariner East 1 buried just a few feet underground in soil near the transition from phyllite to karst geology. The water could be undermining Mariner East 1, risking a rupture.

In addition to concerns about the seeps themselves, the water from the seeps has had an elevated pH since grouting and cannot even be diverted to the creek. Instead, the water is being pumped under the road to frac tanks requiring pumps, generator and personnel in front of our property 24/7. It has been three weeks now, and the pH remains elevated. What if this pH does not return to acceptable levels? This has not been addressed in the submitted HDD Analysis

The DEP must require Sunoco submit plans to:

1. Mitigate the seeps that continue to have an elevated pH three weeks after grouting.
2. Stop the seeps their drilling activities created at Shoen Road.
3. Ensure drilling the 20" does not create seeps on other homeowners' property.

Finally, any plans Sunoco submits to address the above concerns related to ground water discharge, seeps and inadvertent returns, must be based on science. In addition to conducting a more thorough hydrogeologic investigation, further geologic investigation is required: The Drilling Analysis claims that there is no known or mapped karst geology along HDD 360, but the September 1, 2017 Hydrogeologic Investigation stated that the geologic structure in the area is complex and that a drill log on the Shoen Road worksite "shows limestone where one would expect phyllite" and another boring drilled near this entry/exit pit indicated a karst formation. And in Rettew's geophysical survey report (HDD Analysis Attachment D) there is a recommended for further geotechnical investigations in the three areas of concern at Shoen Road shown in Figure 7. This HDD Analysis contains no report on such follow-up investigation and to the best of my knowledge, this work has not been conducted.

Finally, these investigations must be conducted by independent geologists not influenced by Sunoco: The false information submitted for HDD 360 on multiple

occasions now, and the allegations recently come to light by a geologist formerly employed on the project should make this requirement clear to the Department. The DEP should not be granting any further approvals without a review of Sunoco's policies and ensuring that all reports are based on sound science. Too much is at stake - our water resources, people's properties, well-being, health and very lives.

A public meeting on this re-evaluation is requested. (22)

Letter - [Virginia Marcille-Kerslake](#)

### **23. Comment**

The families in our neighborhood, mine included, live in fear of Sunoco and their pipelines. The more we learn, the more ill at ease we become.

I am incredulous that someone thought it would be a good idea to transport 500,000+ barrels of ethane a day foot from homes, schools, assisted living facilities, fire stations, ambulance corps, all well within the potential impact radius.

We learned they had an engineer heading the project who was not an engineer. We learned of welders not properly certified. We saw their pipes sit around for years exposed to the sun and elements. We learned they damaged aquifers and ruined wells. We learned of their grouting attempts, but waters find its path and so they will just make it someone else's problem who is not a stakeholder and they can ignore and deny wrongdoing. We learned they spilled into Marsh Creek, a major water source for Chester County. We learned of them trying to silence the scientists whose very job, under their employ, was to build safe infrastructure. The subsidence they are hiding in the Karst formations of our area threaten sink holes which very easily could damage not one pipeline, but 4 (5 in my neighbors right of way, all within a 50' wide swath.) We learned they try to avoid giving safety information to those who potentially be impacted in a failure for fear of negative press, all so they can complete this behemoth before we wise up. We learned they repurposed a, 80-year old pipeline. Which lies less than 2' underground in places and within 50' of homes. A fact I can prove with photos. We learned of their many spills and that the fines are a pittance and just a cost of doing business. They hide what this is by calling it Natural Gas Liquids. Implying we use it to heat our homes, and power industry that employs so many. Despite a few propane outlets added to give credence to a domestic need, this is for export largely for plastics employing few, and benefiting only their shareholders, but the lives of those they put at risk.

I can't help but be reminded of the Ricky Waters line from his first game as a Philadelphia Eagle, "For who? For what?".

Hopefully you are still reading. While pipelines may be safer than transport by train, or truck, they do facilitate the possibility of disaster on a much larger scale. This transmission pipeline project, with a capability of half a million barrels of ethane a day, runs through heavy populated areas within feet of homes, schools, parks, and under swing sets and trampolines. You read stories of pipeline failures, invariably in

farmers' fields, where fires rage and homes 1,000 feet away are damaged. This pipeline will run through a narrow 50' wide corridor alongside two 80-year old pipelines. Failure in one poses a serious risk to the adjacent pipelines so closely packed together. When a pipeline such as this fails in a "High Consequence Area" as PHMSA puts it, the consequences can only be high. I hope those who were cavalier in putting this through backyards face negligent homicide charges in the event of any failure resulting in death. Failure is only an accident when all reasonable safety precautions are taken. Sadly, the Sunoco actuaries have determined that in the event of a disaster, my life, your life, and those of our neighbors are cheaper than building fault tolerant and safe infrastructure.

I ask you, for who? For what? (23)

#### **24. Comment**

Uwchlan Township has reviewed the re-evaluation of the HDD installation for the 20-inch diameter pipeline that crosses Biddle and Devon Drive in Uwchlan Township, submitted October 9th, 2020 and offers the following comments for consideration. Uwchlan Township recommends that the PA DEP requires that the design professional evaluates and documents the effects of the groundwater impacts to the Aqua public water supply wells located on Shoen Road in the report. These wells supply public water to Uwchlan Township and West Whiteland Township and are two properties to the west of the Shoen Road drill site. The Aqua property with the wells is approximately 840 feet west of the Shoen Road drill site. The current report does not acknowledge these public water supply wells, nor address the limits of the groundwater impacts that may be occurring. The report discusses private wells within 450 feet of the HDD location only. Justification to the limits of 450 feet should be provided.

Uwchlan Township recommends the report specifically address the need for casing pipe installation at the HDD entry / exit locations. The report should address:

1. Whether the casing pipe is required for the work.
2. If there are other alternatives to the casing pipe or installation methods for the casing pipe.
3. If the casing pipe is to be removed following the pullback work.
4. The potential for subsidence around the casing locations.
5. The ability to pull the casing without adverse effect to the installed pipe and adjacent active Sunoco pipes.

The Devon Drive HDD entry/exit area is located in a densely populated neighborhood and the casing installation severely impacts the residents in a large radius around the drill site. We recommend that alternate methods to provide a safe drill site be investigated and implemented.

As noted in the reevaluation reports, there are numerous fractures and a ketch fault along the HDD corridor, including in portions of Uwchlan Township. The Township recommends that the HDD reevaluation report specifically address the fractures/fault

and the impacts to the groundwater/drilling mud operation at the locations (potential loss of material at the fractures).

Uwchlan Township recommends that additional analysis be completed for the reevaluation report and the geophysical survey related to existing pipes. The report and survey do not address the existing active pipelines that are located adjacent to the proposed 20" pipe.

Uwchlan Township recommends that further analysis of the vertical alignment be completed to determine if the 20" pipe can be installed at a higher elevation to avoid the impacts to the groundwater. With the well monitoring that has been completed and is ongoing, there should be sufficient data to determine an elevation that would reduce the impacts to the ground water.

As noted in the HDD reevaluation, the ground water levels were severely impacted due to the discharges that occurred during the 16" pipe HDD work. Uwchlan Township recommends the HDD reevaluation reports address impacts to the corridor that may occur from the fluctuation of the groundwater levels in this area, including any impacts that may occur to the soil stability due to the flow of this ground water (potential subsidence of the ground).

Uwchlan Township recommends Sunoco be required to submit additional analysis regarding the impacts of the HDD work related to the annulus grouting post pipe pull back on the naturally occurring seep at the north side of Shoen Road. As noted in the conclusions of the reevaluation report, a small diameter pipe will be inserted from the southeast/Shoen Road entry location and grout will be injected into the hole until refusal. Per the Skelly and Loy seep evaluation (dated July 2, 2020), it was concluded that this seep drainage patterns extends approximately 250 feet from the seep to an unnamed tributary to Valley Creek. The report should address the potential for this seep to be eliminated and/or relocated due to the grouting process, and the impacts to drying up of this seep in the post construction condition. The report should address the post monitoring procedures for this work and potential impacts that this seep may relocate to another property/location in a densely populated area.

Uwchlan Township recommends that additional work be completed for the Geophysical Survey. As noted in the February 27, 2020 Geophysical Survey prepared by Rettew (page 2 of 5), "the actual exit/entry area was inaccessible due to wooden and plastic matting." It is important to complete the survey in the area of the proposed work to determine if any areas of concern are noted.

Uwchlan Township thanks you for your consideration of the above listed comments.

(24)

Letter – [Uwchlan Township](#)

## 25. Comment

Pursuant to the Corrected Stipulated Order entered on EHB Docket No. 2017-009-L on August 10, 2017 (“Order”), and on behalf of Clean Air Council, Mountain Watershed Association, Inc., and the Delaware Riverkeeper Network (“Appellants”), please accept these comments on Sunoco Pipeline L.P.’s (“Sunoco”) re-evaluation report (“Report”) for the horizontal directional drilling (“HDD”) indicated by drawing number PA-CH-0199.0000-RD (the “HDD Site”).

As explained below, it would be inappropriate for the Department to issue an approval for this HDD proposal without first having determined whether Sunoco has corrupted the scientific basis for the proposal.

### **1. Due to serious allegations of perversion of the science, the Department should not grant any more approvals to Sunoco until it can be shown that the HDD Report is based on sound science.**

A former geologist for Sunoco’s contractor GES has now publicly explained that - at least in Chester and Delaware Counties - Sunoco has been systematically preventing its contractors from communicating geological problems along the right-of-way and requiring them to submit their scientific reports in editable form. This geologist found a sinkhole along the pipeline route in Chester County and was fired for documenting it since it was not within the permitted limits of disturbance. Sunoco apparently has a policy that any geological hazards, no matter how hazardous, are not to be monitored or reported if they are not within the limits of disturbance.

These facts obviously carry with them great concerns. A geological hazard is a hazard whether or not it falls within the limits of disturbance. And the Department cannot reasonably rely on scientific reports where they may have been doctored after issuance based on Sunoco’s whim or convenience.

The Department must investigate Sunoco’s policies in this regard. If the Department relies on Sunoco’s falsified and covered-up self-reporting in issuing an approval to go ahead, it would be an arbitrary and capricious decision that would put the neighbors’ health, welfare, and lives at risk.

### **2. The proposal to deepen the bore lacks justification.**

The main change Sunoco is proposing in this re-evaluation is deepening the bore. It writes at page 9, “The redesigned HDD profile have maximized [sic] the angle of entry and exit to reduce the potential for IRs.” Given that the main problems at the site have been Sunoco’s drilling causing the water table to drop precipitously, this proposed remedy appears mismatched to the problems. Sunoco should instead redesign the HDD in a way that addresses the depletion of the aquifer.

This is a recurring problem with the HDD Re-evaluation Reports. There have been a series of these where Sunoco proposes deepening the bore profile without explaining

how that would remedy the problem at hand. This is just the latest. This shortcoming mirrors the problems with Sunoco's original drilling plans: namely, that it prefers a simpler one-size-fits-all approach rather than doing the work to tailor its approach to the unique geology of the HDD Site.

The Site is a prime example of unique geology, where the mapped features do not match with what Sunoco has encountered. The Department should not simply allow Sunoco to copy and paste its older plans for this Site.

Furthermore, deepening the bore profile has the potential to intersect a longer portion of aquifer, perhaps leading to a greater draining effect. At a site such as this one, consideration should be given to making the profile shallower. This presents a risk of a greater likelihood of drilling fluid spills, so it is by no means a given that it will be the right approach, but the failure to even try to come up with a solution for the problem at hand is simply not acceptable.

**3. Sunoco mischaracterizes the seep to appear less concerning than it is and identifies a new crossing of a wetland that it never disclosed to the Department, much less obtained permitting for.**

Appellants have concerns with how the Report characterizes and considers the seep on the property of Virginia Marcille-Kerslake. Sunoco writes at page 4 that "completion of the pilot borings for the 16-inch line created a groundwater discharge and SPLP expects similar conditions during construction of the 20-inch line." Appellants have expressed before that the Department should not be in the business of approving plans that are likely to lead to violations of the law, such as drilling fluid spills. The Department should also not be in the business of approving plans that are likely to lead to a public aquifer being drained and damaging the private property of a non-consenting neighbor.

The Report downplays this likelihood in several ways, starting with its description of the issue at Section 2.3.3 of the hydrogeological report:

A naturally occurring zone of groundwater seepage occurs along the HDD alignment, north of Shoen Road. This seepage was investigated by Skelly and Loy (2018) with respect to HDD construction activities (see Attachment C). The study concluded that the seep is a persistent hydrologic condition that predates the HDD activities. The primary toe-of-slope seep was described as a low-flow, intermittent source of hydrology to the area, which intercepts upgradient less-regular seasonal/ephemeral seeps and surface water flows.

The question is at issue here is whether Sunoco's drilling caused a massive outflow fundamentally changing the nature of the hydrology and land. The answer is that it did.

The Skelly and Loy seep report in Attachment C upon which the statement in the hydrogeologic report is based concludes:

Based on the evidence observed, it is our opinion that the toe-of-slope seep and associated drainage pattern were present in the area of investigation prior to 2017. Although the exact quantity of hydrology related to this seep prior to the initiation of HDD-360 cannot be determined, it is reasonable to assume what is currently seeping from the area is similar to the seepage of hydrology prior the initiation of the HDD.

Skelly and Loy reach this conclusion based on the existence of hydric soils and facultative wetland vegetation. In other words, they purport to have identified a wetland in the immediate vicinity of the right-of-way that Sunoco's contractors in five years have never before identified, and certainly never disclosed to the Department.

This is very concerning in itself. Sunoco has never obtained permitting to cross this wetland. It was not identified in the aerial site plan submitted to the Department with the original permitting materials (as submitted in December 2016) (see [http://files.dep.state.pa.us/ProgramIntegration/PA%20Pipeline%20Portal/MarinerEast II/Chester/ 07%20-%20Site%20Plans/Tab%207A%20Aerial%20Site%20Plans/ChesterCountySitePlan\\_Rev5\\_11302016.pdf](http://files.dep.state.pa.us/ProgramIntegration/PA%20Pipeline%20Portal/MarinerEast%20II/Chester/07%20-%20Site%20Plans/Tab%207A%20Aerial%20Site%20Plans/ChesterCountySitePlan_Rev5_11302016.pdf), Sheet 55 of 97). If this wetland existed in 2016 at all, it was within the survey corridor of the pipeline route but not mapped and never delineated. Either Sunoco identified the wetland and did not bother to report it to the Department, or the wetland did not exist in 2016. If the former is true, that is fraudulent. If the latter is true, Sunoco is currently conveying false information to the Department. Either way, the Department should investigate before taking any action at this site.

Furthermore, whether the soils are hydric and wetland species live there does not answer the question of whether a seep pre-existed at the site. Not all wetlands are caused by seeps. Skelly and Loy's write-up does not investigate whether this purported wetland could have been created by other means such as surface drainage. For these reasons, the conclusion that a seep pre-existed is based on unwarranted assumptions and should be disregarded.

Regardless, the following assumption that "what is currently seeping from the area is similar to the seepage of hydrology prior [sic] the initiation of the HDD" is pure speculation, unexplained and contradicted by the first-hand accounts of the landowner who has lived at the property since 2004 and neighbors uphill for the past 38 years.

The Report understates the loss of groundwater during construction, stating that the discharge at the southeast entry/exit varied between 25 to 50 gpm. The reality is that twenty-two eighteen thousand gallons frac tanks were required to manage the water

discharged outside of allowable construction hours (i.e. Saturday 7pm to Monday 7am). That amounts to a discharge of about 183 gpm.

Furthermore, the Skelly and Loy report references the use of soil pits in the area of the seep. According to Virginia Marcille-Kerslake, who has a Master of Science degree in Soil Science, no soil pits were dug on their property. The validity of the entire evaluation is suspect.

After grouting was completed, the pH of the water from seeps increased to a level unsuitable for release into the nearby creek. Three weeks later, this water is still being contained and pumped under Shoen Road to frac tanks on the drill site and hauled away as waste. What is the plan if the pH does not return to allowable levels?

The Department should demand that Sunoco have in place a realistic plan to prevent - not just manage - the flooding that the neighbors experienced. If Sunoco cannot provide that, no approval should issue.

**4. The Alternatives Analysis lacks an adequate re-route analysis and ignores another alternative.**

The re-route analysis in Sunoco's alternatives analysis is overly simplistic and needs to be fleshed out with more substance. It boils down to (1) the area is crowded with other land uses and (2) might as well use the existing utility corridor. The analysis is sensible as far as it goes, but it omits a number of important considerations.

First, Sunoco a re-route would be possible, just difficult. The existing route is difficult. Sunoco fails to weigh the pros and cons and consider re-route options. Is there an area in this complex geology where Sunoco would be less likely to encounter geologic hazards? Sunoco does not attempt the investigation.

Second, Sunoco fails to consider the no-build option. Sunoco has recently announced that it has launched a "Pennsylvania Access" project whereby it will convert the Mariner East 1 pipeline from Westmoreland County to Berks County to refined petroleum products rather than natural gas liquids. This would empty out product flowing into the Mariner East 1 pipeline in Chester and Delaware Counties, thereby increasing the remaining capacity on the Mariner East system as a whole in those counties. It is not at all obvious that the remaining pipeline under construction is needed for natural gas liquids capacity, given this new announcement about a change in service on the lines. The Department should ask Sunoco to revise its Report to evaluate a no-build alternative for this Site based on the change in needs on the Mariner East project as a whole.

Thank you for considering these comments. Please keep us apprised of your next steps on the HDD Site. (25-29)

Letter – [Clean Air Council](#)

## 26. Comment

I write to submit my comments to the public record on Sunoco LP/Energy Transfer's Horizontal Directional Drilling Analysis for the installation of a 20" pipeline at HDD S3-03-0360 - Biddle Crossing.

This site continues to be an example of our failure to uphold the rights of Pennsylvanians to public health, safety, private property, and environmental protection. By continuing to allow this project to move forward with a track record of destruction, falsified records and failed plans, we continue to shift the burden in property damage, public health and safety risks, and environmental destruction of this project to the public, while an out of state, multinational corporation reaps the profit and gain at our expense.

This drilling site has had issues with groundwater discharge and mitigation consistently since June 2017, when drilling breached the subsurface aquifer, ultimately requiring more than a dozen private well owners to be transitioned to public water service. Additionally, it has caused surface level water discharge that has been referred to as "seeps" on private property at 107 Shoen Road, along the drilling route.

In sworn testimony during proceedings before the Pennsylvania Public Utility Commission in May of 2018, Sunoco LP/ Energy Transfer took responsibility for the seeps on the property at 107 Shoen Road. Sunoco's own hydrogeological assessment, submitted to the DEP in September 2017, determined that "a groundwater mound would develop which could generate seeps north of Shoen Road, similar to what was observed on July 20, 2017 in response to attempts to grout the open drill hole, and reportedly continues currently to produce surface seepage at that location." Property owner Mrs. Kerslake and her neighbors further testified that the seeps were never present before the pilot hole was grouted in July 2017.

This new drilling analysis conflicts with the 2017 findings and all accounts by local residents who have lived on that hillside for decades. Further, contrary to the September 2017 Hydrogeological Investigation, Sunoco predicted that once pullback and grouting was completed, the seeps would subside. Several weeks after final pullback and grouting of the 16" borehole, seeps continue to flow at increased levels, causing water with a pH too high to discharge in the waterways of the commonwealth to require mitigation operations 24 hours a day, 7 days per week. This is not addressed in the Drilling Analysis in question.

How will this situation be managed long term? Where will the water pop up when they drill a new pilot hole? How many more homeowners will be impacted?

In addition to the inconsistencies in the reports that have been submitted on this site, according to USGS, land subsidence occurs when large amounts of groundwater have been withdrawn from certain types of rocks, such as fine-grained sediments. The rock compacts because the water is partly responsible for holding the ground up.

When the water is withdrawn, the rock falls in on itself. Excessive pumping of aquifer systems has resulted in permanent subsidence and related ground failures. In some systems, when large amounts of water are pumped, the subsoil compacts, thus reducing in size and number the open pore spaces in the soil the previously held water.

As the Department is aware, land subsidence poses risk of catastrophic failure in pipelines, with hillside locations being particularly vulnerable as evidenced in the September 2018 explosion of the Revolution Pipeline in Beaver County, PA, which caused a massive fireball, engulfing a home and burning section of land over 500 feet from the site of subsidence. In the heart of Exton, Chester County, a similar incident would cause catastrophic loss of life and property. As you are also aware, this area has been plagued with land subsidence events that have caused five families to have to move away from their homes and neighborhood at Lisa Drive in Exton. Route 30, one of Chester County's busiest thoroughfares, has had over a dozen land subsidence events since June of 2020 and as recently as last week, new subsidence features have been discovered at this valve site location.

Along with the land subsidence issues in West Whiteland township, very close to this specific drilling location, nearby East Goshen township is currently investigating a subsidence feature revealed in a recent whistleblower report near the Bow Tree Development and HDD location. A subsidence feature was discovered in a wetland during the Marsh Creek spill cleanup in August of this year and this week, in addition to these locations, land subsidence features were reported in nearby Upper Uwchlan Township and also in Wallace Township. The one thing all of these features have in common is that they are in the path of the Mariner East Pipeline creating additional risk to our local communities.

In addition to the obvious concerns about growing issues with land subsidence in and around Chester County related to this pipeline project, I have serious concerns about the reliability of the information provided to the Department by Sunoco LLP/Energy Transfer and their contracting partners. The recent whistleblower report by a licensed professional geologist has raised suspicion and concern about the systemic suppression of vital geologic information by this operator. This most recent claim adds to the doubt that has already been cast by a weld inspector pleading guilty to falsifying weld reports on this project in Western PA as well as two PA state constables being indicted for misusing their public office in a private contracting agreement with this operator. A pattern of disregard for the law, our regulations and for the public raise incredible doubt in our ability to trust the information provided by this operator on this project.

### **Protection of Private Property and Environment**

Given the proximity to privately owned homes, this project's history of property damage, noise, and vibration exceeds reasonable standards for construction in a residential community. Construction along this segment, which runs through densely populated neighborhoods, has been detrimental to residents' safety and quality of life

and has created an involuntary risk for residents who do not have easement agreements with SPLP.

My legislative office regularly fields complaints from constituents who live along the pipeline easement near Devon Drive and Colonial Drive, at the opposite end of the segment from Shoen Road.

We have received reports of intolerable noise, vibration, fumes, and odors during construction. Constituents describe the fumes as “nauseating, with a burning smell,” and the noise as “a rhythmic, pulsating bang,” causing headaches and making it impossible to work or school from home, as many residents have been forced to do since March 2020. Homes are “bouncing” and vibrating throughout the duration of the construction day.

### **Erosion, Sediment, Dust, and Airborne Particle Control**

We receive regular complaints from constituents who have observed pipeline street sweepers stirring up dust in the face of pedestrians, and trucks rolling off the easement with no effort at dust suppression. As we enter the winter months, dust becomes an even greater concern, as PennDOT prevents workers from spraying water for dust suppression when temperatures fall below 40° F.

This operator is neither reliable nor trustworthy, and this project is neither safe nor suitable for a heavily populated residential area. I urge the DEP to consider the above factors and the comments of other public stakeholders in its review of Sunoco’s report. (30)

Letter – [PA Representative Danielle Friel Otten](#)

### **27. Comment**

Please accept the following comments in response to the HDD Reevaluation Report submitted by Sunoco Pipeline, LP. for DEP Permit number E15-862, HDD Reference number PA-CH-0199.0000 filed on October 9, 2020.

Following my review of this report, I have a number of questions and concerns related to the stated environmental and quality of life impacts for citizens in Uwchlan and West Whiteland Township. The re-evaluation report indicates that Sunoco is requesting to utilize the originally permitted 16-inch profile for the installation of the 20-inch pipeline at this location. However, it is my understanding that in the fall of 2017, Sunoco chose to install the 16-inch pipeline using the 20-inch profile permitted by the Department due to widespread problems with the originally permitted 20-inch profile. These issues during the drilling include a groundwater flow rate of up to 70 gallons per minute between June and July of 2017. Further, on July 3, 2017 numerous residents reported cloudy drinking water and a significant loss of water pressure due to construction activities. While Sunoco has reported reaching an agreement with nearby residents with private wells that included the connection of these properties to public water supply, I would assume the risk of potential environmental contamination of this pristine aquifer remains for the 16-inch profile.

The utilization of this profile may be in the best interest of Sunoco, but I strongly question the appropriateness of relying on a profile with known environmental risks.

In addition to known environmental Impacts to the local aquifer, water seepage north of the Shoen Road drill site has plagued this project since 2017. In fact, when drilling resumed at this location in August of this year, Sunoco reported a drastic change in the flow and quality of seep, leading to water testing required under the Seep Monitoring Work Plan. The re-evaluation report under consideration by the DEP indicates that while the groundwater was tested, Sunoco determined that based on a field test for pH, special conductance and color, there were no impacts from drilling fluid. This analysis conflicts with local reports and photographic evidence indicating an IR of drilling fluid may have occurred at this location. With this in mind, I question the decision to avoid formal laboratory testing of this groundwater for bentonite and other drilling contamination. Groundwater contamination caused by pipeline construction at this location flows east and deposits into a tributary of the Valley Creek, an Exceptional Value waterway and I question the ability for this plan to be successful without further contamination of this important water resource.

While Sunoco and their consultant Groundwater and Environmental Services (GES) claim on page 5 of the Geologic Analysis section of the October 9, 2020 re-evaluation report that this drill site does not contain any Karst geology. However, I have serious concerns related to the number of known and unidentified sinkhole locations along nearby pipeline routes and request that DEP require Sunoco to fully investigate the possibility of sinkhole disturbance along the route prior to consideration. Further, the geophysical survey prepared and presented as attachment D this re-evaluation report:

"The geophysical survey results display anomalies along the alignment indicative of fractures that are possible locations for slightly-elevated subsidence hazards. RETTEW recommends further geo-technical investigations in the three areas labeled "A through C" as well as continued monitoring of all the anomalous locations as further drilling is conducted in the area. Area "C" is cited for further investigation due to its location beneath the road and proximity to the exit/entry"

For your convenience, attached please find copies of the documents referenced above.

To my knowledge, no additional studies have been performed as advised and if it has been, these results have not been made available to the public or adjacent property owners. Further, the Hydrogeologic Investigation dated September 1, 2017 directly indicates that, "a recent geotechnical boring drilled near the south entry/exit was most likely in karst as the boring went 130 feet before encountering bedrock." These reports are directly contradictory and indicate a complete lack of reliable geophysical assessment and data for this site. Leading to a guessing game as to what type of rock is being drilled, potentially explaining the multitude of IRs, groundwater seeps, and numerous violations related to this drill site.

Compounding this issue, recent legal filings call into question the validity of any data presented to the department and believe it is in the best interest of all involved that additional and more extensive geophysical and hydrologic testing be performed at this site by an independent third party. After all, ground disturbance and earth movement are known to have resulted in the catastrophic failure of the Revolution Pipeline in Beaver County, Pennsylvania on September 10, 2018. If a similar pipeline explosion were to occur in the high consequence area of Southeast Pennsylvania, the resulting loss of life would be beyond unthinkable.

While Sunoco has gone through the motions of reevaluation, it is clear that the information provided will undoubtedly result in additional environmental harm. It is my strong recommendation that the Department reject this report as incomplete, call for significant public involvement including public meetings, and require Sunoco to perform a complete third party assessment of the entire project, across all 17 counties, to ensure construction activities do not cause permanent and irreparable harm to the environment and the Pennsylvania public. Otherwise, it is virtually impossible to determine if this pipeline is safe and stable. Failure to do this is gross negligence and could result in catastrophic harm, similar if not worse than what occurred in Beaver County in 2018. (31)

Letter – [PA Senator Katie Muth](#)

#### **28. Comment**

I am writing as a private citizen to express concern over the drilling at Biddle Crossing. I have concerns particularly with the habit of citing specialists and professionals, who undoubtedly are good at their job, but provide little information for the non-specialist to understand. I think that this causes much miscommunication and would like to encourage that your reports be written less for the specialist and more for the general concerned citizen. (32)

#### **29. Comment**

I am writing to request that the DEP not issue any permits for Sunoco/Energy Transfer Partners to begin drilling to install the 20" pipe for the Mariner East 2 pipeline project in the section between Devon Drive and Shoen Road in West Whiteland Township. This is the section of the pipeline known as HDD-0360, and also is being referred to as Biddle Crossing.

Throughout the process of Sunoco/ETP drilling and installing the 16" pipe, there were numerous problems, of which I am certain that you are aware, including:

**Loss of Groundwater.** With each drilling attempt, Sunoco has breached the aquifer within the first several days of drilling. In 2017 and 2019, this impacted homeowners with private water wells. As a result, 35 families had to transfer from their private wells to public water.

In August, Sunoco again breached the aquifer and groundwater discharged into the drill pit at Shoen Road. It was estimated that about 264,000 gallons of water per day

was discharged during almost two months of drilling. This estimate is based on the twenty-two 18,000-gallon frac tanks on site (these are tanks used to store this water outside of allowable construction hours until it can be hauled away as waste) and on the frequency of 5,000-gallon water trucks coming and going. This equates to 183 gallons per minute, far more than the 25 to 50 gallons per minute Sunoco falsely reported in its HDD Drill Analysis. In addition, the discharge began August 1 (if not earlier), not August 10 as falsely reported. Because no private wells are left to be impacted along this segment, the DEP allowed Sunoco to continue drilling despite this massive discharge of groundwater, in contradiction to the Department's responsibility for protecting clean freshwater, a limited resource.

Sunoco has submitted no plan to ensure this does not happen again. I implore the DEP require a credible plan to protect the freshwater aquifer.

**Inadvertent Return of Drilling Mud.** During drilling on August 8, grey mud began to flow out of seeps across the road from the worksite around 9:15 am and continued through the next several hours, turning orange at some point before noon.

Much like the groundwater issue, Sunoco has submitted no plan to avoid more inadvertent returns of drilling mud and improve their plan to contain should one occur. I implore the DEP to insist that Sunoco provide a credible plan to avoid more inadvertent returns.

**Seeps at Shoen Road.** When Sunoco grouted the borehole in July 2017 after the first failed HDD attempt at this location, water started seeping and flowing out of the ground on private property on the north side of Shoen Road. In a Hydrogeologic Investigation submitted to the DEP on September 1, 2017, Sunoco claimed that once the pipeline was installed and grouting was complete, the seeps would no longer occur. The 16" pipeline is now installed, and grouting completed, yet the seeps continue, as this video shows.

Since Sunoco does not know how to stop the seeps, they are now attempting to falsely claim this emergence of groundwater is naturally occurring, despite acknowledging multiple times including under oath that the seeps were created by their drilling activities. Sunoco made this false claim previously in January 2020 and in response, the DEP received letters in January 2020 from West Whiteland Township, Senator Dinniman, Rep Friel Otten and the property owner refuting the claim. This included refuting a Seep Investigation by Skelly and Loy dated July 2, 2018 (first introduced by Sunoco in January 2020) which Sunoco again references in this HDD Analysis. That investigation is inaccurate, speculative and inconclusive. Most notably it claims that soil pits were dug in the area of the seeps for the investigation. The property owner, herself a soil scientist, has stated unequivocally that no soil pits were dug, and the entire Skelly and Loy report should be considered suspect.

Furthermore, the water from the seeps has had an elevated pH since grouting three weeks ago and cannot even be diverted to the creek. Instead, the water is being

pumped under the road to frac tanks requiring pumps, generator, and personnel impacting the homeowners 24/7 and creating an unsightly nuisance. It has been three weeks now, and the pH remains elevated. How does Sunoco intend on handling this if the pH does not decrease to allowable levels? This has not been addressed in the submitted HDD Analysis.

In consistent fashion, Sunoco has submitted no plan to stop the seeps. I insist that you require Sunoco to provide a credible plan to stop the seeps that its drilling has triggered.

**Risk to Mariner East 1.** In addition to impacting private property, these seeps present a public safety concern because the water emerges along the path of Mariner East 1 buried just a few feet underground in soil near the transition from phyllite to karst geology. The water could be undermining Mariner East 1, risking a rupture.

In summary: before the Department can re-evaluate this segment, Sunoco must be required to submit credible plans to ensure drilling the 20" pipeline will not impact the aquifer again, discharging vast amounts of groundwater; mitigate the seeps that continue to have elevated pH; and ensure construction of the 20" does not create new seeps on this or other homeowners' property.

This will require a thorough hydrogeologic investigation, which Sunoco must also be required to provide.

In addition to hydrogeology, further geologic investigation is required: The HDD Analysis claims that there is no known or mapped karst geology along HDD 360, but that is false. The September 1, 2017 Hydrogeologic Investigation stated that the geologic structure in the area is complex and that a drill log on the Shoen Road worksite "shows limestone where one would expect phyllite" and another boring drilled near this entry/exit pit indicated a karst formation. This change in hydrogeology can have a potentially catastrophic consequence in an area with HVL pipelines underlain by karst. And a geophysical survey conducted by Rettew in February 2020 included in the Drill Analysis stressed the need for further geo-technical investigations at three areas of concern for subsidence or seeps on Shoen Roen and uphill from the worksite. I have a very personal, vested interest in this further geo-technical investigation, as one of these areas of concern is on my property, uphill from my house. If this area develops a seep during drilling, I am fearful for the safety and integrity of my home.

These investigations must be conducted by independent geologists not overseen by Sunoco. Recently, a whistleblower who was previously employed by GES and working on Mariner East construction in Chester County information has spoken out about falsified and editable reports among other deeply disturbing concerns. This, in conjunction with false reports already submitted to the DEP for HDD 360, should make this requirement abundantly clear to the DEP.

Please consider these requests. I appreciate your consideration. (33)