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By Email

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**Re: Comments on Report for HDD PA-BR-0181.0000-RD-16 (HDD# S3-0250-16)**

To whom it may concern:

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-BR-0181.0000-RD-16 (the “HDD Site”).

Sunoco’s previous attempts at crossing Joanna Road represent an utter failure of planning and engineering. Many of the things that can go wrong with HDD—from inadvertent returns, well contamination, and flooding, to interfering with a sewer line, subsidence, and equipment failures—happened here during the installation of the 20-inch pipe. Even worse, many of these problems occurred *after* the Department had already greenlighted a reevaluation. This fact alone should give both Sunoco and the Department pause and should be reason enough to approach this second reevaluation with a heightened degree of caution and care. Unfortunately, the incomplete analysis Sunoco provides in the Report does not demonstrate that Sunoco has learned from its failures at the HDD Site or that it will do better as it installs the 16-inch line. The Department now has the opportunity and the responsibility to hold Sunoco accountable and to prevent Sunoco from making the same mistakes again.

**1. Sunoco does not explain the cause of the mechanical failures it encountered during the drilling of the 20-inch line, the impacts of those failures, or how the proposed plans will avoid repeating those problems.**

After the Department approved Sunoco’s first reevaluation of the Site and Sunoco resumed drilling for the 20-inch line in early 2018, Sunoco encountered a series of mechanical problems. It lost 12 or more roller-cones underground. (The exact number is unclear from the documentation in the Report.) Numerous failed attempts were made to retrieve the roller-cones. In the process, Sunoco also lost two of the retrieval baskets and abandoned its recovery efforts multiple times to try from different angles and to drill new holes. One of the baskets was sheared apart. A reamer got stuck. Then the 20-inch pipe got stuck during pullback. This resulted in the

pipe being “badly gouged,” requiring more reaming, new pipe, and a separate pullback attempt. To some extent, mistakes and pitfalls arising from unexpected circumstances are normal while drilling. The eight months of problem-plagued drilling attempts that it took to get the 20-inch pipe installed at the Site are not normal. Such botched construction comes with environmental consequences. Sunoco owes the Department and the public an explanation of why these problems happened, what environmental risks they present if they happen again, and what the new proposal does to address them.

When the Department awarded Sunoco Chapter 105 and 102 permits for its Mariner East 2 project, those approvals, and the subsequent approvals of plans that changed, were based on a projection of the environmental impacts those plans would have. The additional heavy equipment, extra holes drilled, and shifting and expansion of workspace for pullback and other activities to install the 20-inch line surely caused more damage than was anticipated and permitted in this wetland-rich location. The extended period of time over which drilling operations were actively attempted also means more time that impacts have gone unmitigated, and more opportunity for runoff, compaction, and other erosion and sediment control problems. These impacts should be discussed in the context of the current proposal.

Perhaps even more importantly, Sunoco’s series of failures suggests a gross miscalculation regarding the underlying geology at the Site. The Department should require Sunoco to provide a thorough discussion of how these construction incidents relate to geological features. The current proposal must also be adjusted to account for those features.

## **2. Sunoco does not discuss the cause of the subsidence features encountered during the drilling for the 20-inch line, or how the proposed plans account for subsidence.**

During drilling for the 20-inch line, Sunoco encountered two subsidence features. It is unclear whether Sunoco caused this subsidence, or if it was present all along and Sunoco just failed to identify it before it started drilling. The Report merely mentions the subsidence features were encountered and dozens of cubic yards of grout were used to fill one of them. It does not provide analysis. Subsidence in proximity to the pipelines can present a significant risk to the public and the environment, as residents living near the construction of the Mariner East pipelines have unfortunately learned firsthand. A careful assessment of the Site geology is needed and must be included in the Report.

First, Sunoco should provide all basic details about the subsidence that was encountered, including the precise location and depth of the subsidence features and their size. This information should also be included on the maps in the Report and shared with any workers who Sunoco intends will participate in future construction at the Site. Then, at a minimum, the Department should require Sunoco to answer the following questions:

- 1) Were the subsidence features caused by Sunoco’s construction activities? If so, how?
- 2) How did the characteristics of the local geology contribute to these subsidence features?
- 3) What is the current status of the subsidence features? Did they change over the course of construction?

- 4) Has Sunoco conducted testing or surveys to ensure there are not more subsidence features in the vicinity of the 20-inch and proposed 16-inch pipeline profiles?
- 5) What impacts could the identified subsidence features, or future subsidence at the Site, have on local groundwater, drinking water supplies, other natural resources, property, the progress of construction, and the pipelines?

Finally, Sunoco should discuss how the new plans for the 16-inch line will ensure additional subsidence will not result from further construction at the Site. To answer these questions, Sunoco may need to conduct geophysical surveys. If Sunoco determines that Site is not suitable for geophysical surveys, it should provide the Department a complete rationale and commit to alternative means of gathering the needed information. The Report asserts that geophysical surveying was not considered because Sunoco has a complete geologic profile from the drilling of the 20-inch line. This is inadequate. Knowing the specific geology of the 30-inch borehole for the 20-inch line does not reveal whether there is subsidence or the potential for subsidence in the path for 16-inch line.

If Sunoco actually *does* have a “complete geologic profile,” then the Report does not comply with the Order, which specifies at paragraph 5.i that “The Report shall document in detail the information considered for the re-evaluation of the design of the HOD at that site.” This “complete geologic profile” is nowhere to be found in the Report. Moreover, it does not appear to have been made available to Sunoco’s hydrogeologists, who wrote, “Due to the lack of site-specific data, it was not determined if the groundwater table occurs within the soils or bedrock.”

### **3. Sunoco ignores previous water well complaints.**

A very serious incident of well water contamination was reported in relation to the construction of the 20-inch line. Sunoco makes no mention of it in the Report. Sunoco has previously taken the position that it is not responsible for the contamination of the Anspach family’s well and has blamed the bacteria in the water on Mr. Anspach’s chickens—despite the chickens being present on the property long before Sunoco and there being there being no issues with his water. Curiously, Sunoco now admits that “[n]o groundwater modeling was performed for the area surrounding HDD S3-0250.” Not only was groundwater not modeled for the Site, but even in the context of the present reevaluation, “no detailed characterization” of the bedrock flow aquifer was performed. Instead, the Report offers a generalized conclusion about the safety of wells: “...due to the documented nature of the geology surrounding the HDD profile and groundwater movement patterns, an affect [sic] to these wells is highly unlikely.” This is contrary to the evidence at hand. In the absence of thorough analysis, Sunoco and the Department are in no position to conclude that the contamination of the Anspach’s well was not caused by Sunoco’s construction, or that other wells will be safe as construction continues. What’s worse, as Mr. Anspach has documented in his comment on the Report, his water remains contaminated with sediment from the drilling.

This ongoing contamination incident must be thoroughly investigated and included in the Report so the Department and the public can be sure the new plans for the Site do not put wells at risk.

**4. Sunoco has misidentified a wastewater treatment facility and fails to address the effluent pipe incident.**

In its Alternative's Analysis, Sunoco references a "presumed agricultural building associated with a public school located south of the HDD." This is likely a mistake and potentially a mistake with significant consequences. It appears what Sunoco is actually referring to is the Twin Valley School District wastewater treatment plant. If Sunoco has misidentified this building, it has likely neglected to account for related infrastructure, such as underground pipes.

Already, Sunoco has interfered with and potentially struck an effluent pipe while drilling for the 20-inch line. This resulted in an inadvertent return to waters of the Commonwealth. Exactly what happened is unclear from the Report as Sunoco's attempts at running cameras through the line did not cover the full area of concern. While the Report mentions a leak between two sections of the effluent pipe that might have let in the pressurized drilling fluid, it is unclear whether this was the only problem. It is also unclear if there are similarly vulnerable segments that could be further damaged by Sunoco introducing highly pressurized drilling fluid in the area. This must be examined in detail in the Report. If a strike did occur, this is especially concerning because Sunoco should not have even been drilling close enough to the effluent pipe for a strike to be a possibility. The Report does not provide the details needed to ensure Sunoco will avoid a similar problem with the 16-inch pipe.

**5. A resident has documented several additional serious problems with the HDD Site that the Report fails to even mention, let alone address.**

Mr. Anspach submitted a comment on the Report with extensive visual documentation and narrative of the sordid history of Sunoco's drilling on his land in the past two years. His reporting has brought to light several additional very serious issues never mentioned in the Report. The failure of Sunoco to address these violations of the law and to try to ensure that the drilling of the 16-inch pipe does not recreate or exacerbate them is a fatal flaw with the Report. The Department should not approve this plan because it is almost certain to lead to more serious violations of law and significant harm to the residents and the local environment.

*A. Oil spills (35 P.S. § 691.301, 25 Pa. Code § 91.33, Permit No. E06-701)*

Mr. Anspach has on several occasions in the last year found oil sheens on surface waters at the HDD Site where the only industrial operations are Sunoco's. No publicly available information suggests that the spill or spills causing these sheens were reported to the Department, and Mr. Anspach believes they have not been reported.

If this is indeed the result of spills from Sunoco's machinery or otherwise caused by Sunoco's operations, Sunoco has violated 35 P.S. § 691.301, 25 Pa. Code § 91.33, and special condition xviii of the Berks County Chapter 105 permit (E06-701) and needed to have reported the spills to the Department and taken immediate measures to clean them up. The Department should investigate and take enforcement action as appropriate.

*B. Unpermitted damming of a waterway (Dam Safety & Encroachments Act, 25 Pa. Code § 105.11(a))*

Mr. Anspach also took multiple photos of sandbag dams installed by Sunoco on an unnamed tributary to East Branch Conestoga River. The Berks County Chapter 105 permit issued by the Department two years ago did not authorize the installation of these sandbag dams. Unless the Department authorized these dams in a separate approval action of which Appellants are not aware, these are violations of the Dam Safety & Encroachments Act and 25 Pa. Code § 105.11(a).

*C. Illegal waste dumping and landfilling (18 Pa. C.S. § 6501, E&S Permit No. ESG0300015002)*

Section V of Part C of E&S Permit No. ESG0300015002 specifies that “No building material or wastes or unused building materials shall be burned, buried, dumped, or discharged at or from the site.” See also 18 Pa. C.S. § 6501 (dumping is criminal). Mr. Anspach documented that in November of 2018, a sandbag E&S structure was “pushed into soils and presumed buried.” This appears to be an instance of illegal dumping contrary to the criminal code and the E&S permit. The Report itself documents (as noted above) a number of pieces of drilling equipment that were abandoned underground. The Department should take enforcement action.

*D. Punctured aquifer and resulting hydrological alterations (Permit No. E06-701, E&S Permit No. ESG0300015002)*

Based on notices of violation the Department issued for the HDD Site on September 17 and 18, 2018, the Department appears to be aware that at least at one point Sunoco experienced a major problem with groundwater inundation of the drilling pit that caused overflows of drilling fluid and turbid water onto adjacent land and into waters of the Commonwealth.<sup>1</sup> Mr. Anspach has documented this problem existed at least as early as March 2018 and has continued through this week. His reporting makes clear that the flow has drained an aquifer and radically altered Site hydrology by (at least) creating new wetlands and a new stream including outside the permitted limits of disturbance. This drainage may be contributing to the ongoing contamination of his water well.

Besides being self-evidently very harmful to Mr. Anspach’s private property and to the environment at the HDD Site, it violates special condition jjj of Permit No. E06-701,<sup>2</sup> and the impacts outside the limits of disturbance are also not permitted under E&S Permit No. ESG0300015002. The Department accordingly should take enforcement action.

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<sup>1</sup> See notices of violation at <http://files.dep.state.pa.us/ProgramIntegration/PA%20Pipeline%20Portal/MarinerEastII/NOV/2018/September%207,%202018%20Berks%20County.pdf> and <http://files.dep.state.pa.us/ProgramIntegration/PA%20Pipeline%20Portal/MarinerEastII/NOV/2018/September%208,%202018%20Berks%20County.pdf>.

<sup>2</sup> “Water pumped from any construction area shall be diverted into a sediment trap, basin, or a filter bag discharging into an appropriate vegetated filter area to prevent sediment from being discharged into any waters of the Commonwealth.”

**6. The Governor’s request to halt the advance of the drill needs explanation.**

In reference to the drilling of the pilot hole for the 20-inch pipe in July 2017, the Geology Report notes: “SPLP stopped the advancement of the boring at the request of the Pennsylvania Governor.” This has never previously been disclosed to Appellants. For the Governor to have such a targeted request involving construction at a particular Site is a stunning and significant development, especially given the long and contentious history of these pipelines and the public’s persistent and often unanswered calls for relief. If the Geology Report has accurately described this course of events, it suggests there were very serious concerns involving the Site leading up to the Governor’s request. Such concerns are not addressed in the Report at all. They need to be. The first reevaluation also did not include those details, and perhaps if it had been complete, the installation of the 20-inch pipe would have encountered fewer problems.

**7. The Report does not make clear that Sunoco has offered water testing associated with the construction of the 16-inch pipeline.**

It is not clear that Sunoco has offered a new round of water testing associated with this reevaluation. Even if water testing were completed as required for the 20-inch line, drilling for the 16-inch line presents a new set of risks, separate from the risks associated with the construction of the 20-inch line. The Department must not allow Sunoco to shortcut water testing protocols. Previous testing may serve as a baseline, but it does not satisfy the requirement of the Order that testing be offered during and after construction. Sunoco must make renewed efforts to contact landowners, offer testing as required, and document these communications.

Thank you for considering these comments. Please keep us apprised of your next steps on the HDD Site.

Sincerely,

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