

February 6, 2018

By Email

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**Re: Comments on Report for Valley Road Crossing (PA-DE-0046.0000-RD & PA-DE-0046.0000-RD-16, HDD# S3-0591)**

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 numbers HDD PA-DE-0046.0000-RD & PA-DE-0046.0000-RD-16 (the “Site”).<sup>1</sup>

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<sup>1</sup> The Order reads, in pertinent part:

§ 6(ii) “For all recommendations for which a minor permit modification is required, including, but not limited to, certain changes from HDD to an open cut or certain changes to the Limit of Disturbance (“LOD”), the Department will have 21 days to review the submission and render a determination with respect to such minor permit modification, unless Sunoco agrees to extend the 21-day time period. *Appellants and private water supply landowners, who have received notice pursuant to Paragraph 7 below, shall submit comments, if any, within 14 days of the Department's posting of Sunoco's Reports on the Department's Pennsylvania Pipeline Portal website...The Department shall consider comments received and document such consideration.*” (Emphasis added.)

§ 6(iii) “For all other recommendations, including, but not limited to, recommendations of no change or of changes that do not require a minor permit modification, the Department will have 21 days to review the submission and render a determination with respect thereto, unless Sunoco agrees to extend the 21-day time period. *Appellants and private water supply landowners who have received notice pursuant to Paragraph 7 below, shall submit comments, if any, within 14 days of the Department's posting of Sunoco's Reports on the Department's Pennsylvania Pipeline Portal website...The Department shall consider comments received and document such consideration.*” (Emphasis added.)

## **The Department's Review**

Pennsylvanians rely on the Department of Environmental Protection to protect them from dangerous activities that threaten their air, water, land, and health. The Department has recognized that the construction of Mariner East 2 has done damage to the public already. The purpose of Sunoco's re-evaluations of certain HDD sites is to do a better job avoiding harm to the public and the environment in its HDD construction. The Department's role is to review and assess Sunoco's Report before deciding what action to take on it.

It is the Department's duty to review and assess the Report with the goal of protecting the public and the environment placed first and foremost. Looking at the individual circumstances at the site in question is key. Critically important is accounting for input from those who live nearby, who have a deeper connection with—and greater knowledge about—the land than the foreign company building the pipelines through it.

A meaningful, objective and substantive review and assessment by the Department will ensure that new or further HDD operations at the re-evaluated sites will cause minimal, if any, harm to the public and the environment. Anything less than a full, careful, and objective review would endanger the public and the environment. Pennsylvanians place their trust in the Department to do a thorough, science-based assessment -- taking into account these and other comments-- and to approve Sunoco's recommendation only if it would protect the public and the environment from any further harm.

### **Comments on HDD DE-0046.0000-RD & PA-DE-0046.0000-RD-16**

#### **1. The risks to water supplies have not been adequately addressed.**

As a threshold matter, Sunoco has not finished collecting data on well locations and features; it should not be permitted to proceed with its plans until this information is collected and analyzed. Sunoco explains that through contact with nearby landowners, it identified 28 parcels that rely on private water supplies and confirmed 36 parcels are served by public water. Based on the numbers Sunoco has provided, that leaves 19 landowners unaccounted for within 450 of the HDD alignment. Even for the wells Sunoco believes it has identified, Appellants are concerned that Sunoco has not properly documented the limited information it has. As a landowner pointed out in her own comment, The Water Supply Illustration in Attachment 2 seems to indicate a distance between her well (WL-0810201-604-01) and the alignment that is far greater than the actual distance. It is important the information Sunoco relies on is accurately reflects in its Report and analysis. Per the Order, Sunoco must also identify well production zones for all wells. It has not done so.

In its discussion of risks to water wells, Sunoco explains that drilling may “result in transport of diluted drilling fluids towards the withdrawn zone for individual wells.” Sunoco also incredibly claims that, “[w]hile this does not present a health hazard, it can be an aesthetic issue for users and could affect taste.” This sweeping claim is false. Bacterial contamination is known to result from drilling fluids or other sediment in drinking water. Water contamination from Sunoco's HDD has already caused bacterial contamination in wells of residents in Exton, PA and in Berks

County near the Joanna Road HDD Site.

Also concerning is that Sunoco seems to have arbitrarily limited the zone of impact, stating “HDD activities could affect individual well use during active drilling for wells located within 150 linear ft.” This distance is unsupported by data and requires justification. Wells situated further from HDD alignments have been contaminated across the state as a result of drilling.

Despite the admitted risks to water supplies, Sunoco does not intend to change its plans to avoid well contamination, but rather will “encourage landowners to make advance arrangements for the supply of alternative water sources as necessary during the HDDs.” Residents nearby Sunoco’s operations should not bear the burden of dealing with the consequences resulting from illegal conduct such as Sunoco’s pollution of their wells. They are innocent bystanders. The Department has a legal obligation to not permit illegal pollution such as water well contamination, and may not approve construction techniques that are likely to result in such contamination.

## **2. Sunoco’s plans do not account for the challenges associated with drilling through the heterogeneous rock found at the Site.**

The Site is underlain by Baltimore Gneiss. As Sunoco’s hydrogeologists have described in the reevaluation of the Arch Bishop/South Chester Road crossing: “To date, steering within the Baltimore Gneiss has been problematic and revised plans for the HDD should take steering issues into consideration, especially if intersect drills are considered.” Here, an intersect drill is not planned, but that alone does not negate the steering problems associated with drilling through this type of rock. Sunoco’s hydrogeologists previously made four recommendations to address these concerns:

The only practical solutions for optimizing progress and staying on alignment may be to govern drilling rates and continue to use greater than typical alignment checks to maintain alignment. In addition, consideration should be given to lowering bit pressures, as well as mud pressures. Higher bit pressures can cause undo wear on and slow overall advancement of the HDD. Diamond bits may be beneficial for maintaining the cutting surface and steering through hard rock zones.

Sunoco ignored these recommendations and upon resubmitting the re-evaluation report for the Arch Bishop/South Chester Road site, inexplicably deleted the recommendations of its scientists.

In this Report, Sunoco has noted but has not ultimately addressed the challenges of drilling through Baltimore Gneiss, and given previous concerns, Sunoco should be required to do so or to explain how those concerns do not apply here. This analysis should come from Sunoco’s hydrogeologist and should also address whether the recommendations referenced above – or some other means of mitigation – are appropriate for the Site.

Finally, besides Sunoco being unable to stay on alignment when drilling in Baltimore Gneiss, it appears drilling through this rock may have contributed to previous IRs on both Mariner East I

and Mariner East II. In the Hydrogeological Evaluation Report, Sunoco’s scientists note: “The only IR for ME I that occurred in Delaware County was at ME I HDD 24 near Edgemont PA, approximately two miles northwest of HDD S3-0591 in Baltimore Gneiss.” Similarly, in regard to ME II, Sunoco’s scientists explain “a few HDD alignments in similar metamorphic bedrock environments have experienced IR events. In Delaware County, four HDDs locations have experienced IRs.” This too should be addressed, along with what specific measures are being taken to avoid similar problems at the Site.

**3. Sunoco must provide a site-specific plan for managing disrupted groundwater .**

As with previous sites, the difference in elevation at the Site may result in the disruption of groundwater that would ultimately need to be managed at the surface. In the Hydrogeological Evaluation Report, Sunoco’s scientists recommend preparing a contingency plan for dealing with groundwater flow back. Appellants agree with this recommendation and believe a site-specific contingency plan and updated E&S plans – as the Department has required for other sites – is also needed here.

The Hydrogeological Evaluation Report also notes that similar groundwater discharge has happened at other sites in Delaware County, and “[t]hese discharges, if large enough, can affect the local water table and possibly affect domestic water supply yields.” This risk needs to be discussed further, and measures must be taken to avoid wells running dry.

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Although RQD values for the two most recent geotechnical borings for HDD S3-0591 are relatively high, variability in RQD values and five fracture trace intersections are indicative of weaker bedrock zones that may represent preferred pathways for drilling fluids, under pressure, to migrate. A fracture trace intersection was mapped on the southern part of the HDDs, which may represent a zone of less competent bedrock. The overburden soils in the vicinity of HDD S3-0591 are comprised of highly weathered bedrock which has relatively low cohesive strength and can be up to 39 feet thick. As such, there is an increased risk of IRs in these horizons during entry and exit for these drills.

**Conclusion**

For these reasons, Appellants request that the Department not approve the HDD re-evaluation recommendation without first (1) requiring that Sunoco gather the needed missing information, as outlined above, and (2) determining that, in light of the newly gathered information, HDD as suggested is appropriate at the HDD Site.

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

Sincerely,

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