DEP Permit # E36-945 DEP Permit HDD Reference # PA-LA-0014.0000-SR DEP HDD # S3-0161 Township – West Cocalico County - Lancaster HDD Site Name – Crossing of Wetlands A54 & A55 (Bog Turtle Wetlands)

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1st Public Comment Period

1. Comment:

Pursuant to the Corrected Stipulated Order entered on EHB Docket No. 2017-009-L on August 10, 2017 ("Settlement"), 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-LA-0014.0000-SR (the "HDD Site").

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 so that it does 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 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 approving Sunoco's recommendation only if it would protect the public and the environment from any further harm.

Comments on HDD PA-CH-0135.0000-RD-16

1. Sunoco failed to do a competent survey of water supplies.

One of the primary goals of Sunoco's re-evaluation is to protect water supplies. Sunoco's failure so far to protect water supplies has been egregious. It is thus baffling that Sunoco repeats the same errors in its re-evaluation for the HDD Site.

Sunoco's permit applications made clear that its methodology for identifying water supplies was limited to: (1) looking up information in Pennsylvania Department of Conservation and Natural Resources' Pennsylvania Groundwater Information System (PaGWIS); (2) accessing public water supply system information; and (3) "water supply data acquired from landowners during the pipeline easement negotiations." *See* Water Supply Assessment, Preparedness, Prevention and Contingency Plan at §§ 4.0-4.2. It restricted its PaGWIS search to within 150 feet of HDD alignments.

As an initial matter, Sunoco is well aware of the inaccuracy of PaGWIS, and has admitted as much at page 2 in its Water Supply plan. Moreover, it is woefully incomplete—so much so that Sunoco only identified 22 wells within 150 feet of the HDD alignments across the entirety of the state, fewer than the number of water wells Sunoco has contaminated so far.

Much of the damage done to water supplies has been outside the 150-foot radius from the HDDs. As part of the settlement, Sunoco is required to, among other things: "send a copy of the Report (by U.S. Postal Service Certified Mail and First Class Mail) to all landowners who have a private water supply that is located within 450 feet of the HDD addressed by the Report."

While Appellants are not saying that Sunoco failed to contact each such landowner, if it did so, it seems to have failed to then simply ask the landowners whether they had any water supplies that might be impacted by the HDD, and the nature of those supplies. That information is not in the Report

The Report makes clear that Sunoco merely used PaGWIS plus visual observations to identify additional wells out to 450 feet from the HDD alignment. There is no excuse for Sunoco failing to ask landowners it already had to contact whether they have water supplies and what is the nature of their water supplies and groundwater.

Because Sunoco has failed to identify the water supplies and the nature of the water supplies and groundwater near the HDD Site, it cannot determine whether any hydrogeological interference caused by the HDD would put those water supplies at risk. Without that information, the Department cannot approve Sunoco's proposal.

2. Sunoco's groundwater analysis is misleading and incomplete.

Besides not determining what water supplies exist near the HDD Site, Sunoco also fails to do a meaningful investigation of groundwater resources.

The Hydrogeological Re-Evaluation Report explains at page 3 that rock layers in the geological basin which the HDD Site is within "generally dip an average of 20° to the north-northwest." Furthermore, at page 4, it explains that "The potential for well interference related to pumping is generally greatest for wells aligned parallel to strike, rather than in wells drilled in the direction of dip (i.e., perpendicular to strike). Wells spaced less than 2,000 feet apart along strike often experience interference effects (Newport, 1971)." While it is not a guarantee that wells within 2,000 feet from the HDD alignment along strike *will* experience hydrogeological interference from the HDD, it is certainly a possibility that Sunoco should have studied.

This especially warranted study because even the incomplete survey Sunoco conducted found wells within 2,000 feet from the HDD alignment along strike. *See* Figure 3 – Well Location Map.

Sunoco's analysis leaves the risk to water supplies from HDD at this location the same as it was before the Report: unknown.

3. Sunoco's conclusion to go ahead with the HDD as planned ignores its own geological report and history of spills at the HDD Site.

Sunoco admits that there were two drilling fluid spills during the first HDD at the HDD Site. Its Hydrogeological Re-Evaluation Report also concludes that the

new HDD "is susceptible to the inadvertent return of drilling fluids during HDD operations, similar to those that occurred during the installation of the 20-inch pipeline.

This was the same conclusion that Sunoco's consulting geologists came to for the Route 897 HDD site roughly a mile to the east. In that instance, Sunoco stated, "The subsurface characteristics in combination with the HDD design resulted in a conclusion that potentially uncontrollable IR's to the stream and wetland were likely, and an alternate plan of construction

should be developed." This conclusion is underscored by the inadvertent returns into exceptional value wetland W-K32 above HDD PA-LA-0004.0000-SR on May 13, June 9, and June 12, less than two miles west of the HDD Site.

In a remarkable turnaround, Sunoco in this Report wholly ignores the conclusion of its hydrogeological report—never mentioning it—and opts for no change to the preexisting plan which resulted in drilling fluid spills.

Moreover, Sunoco baldly mischaracterizes the drilling fluid spills as "minor" and "immediately adjacent to the receiving pit and occurring right before the exiting of the drilling tool." Both of those statements are false. One of the two IRs involved more than 100 gallons of drilling fluid, and the other was about 500 feet from the HDD exit point, where the HDD was near its maximum depth below the surface. It so happens that Sunoco was lucky in that the fluid fracked-out in uplands, rather than the bog turtle wetlands the pipeline crosses, but that was just luck. The critically endangered bog turtle is the smallest North American turtle, only four inches long when fully grown. A spill of a hundred gallons of drilling fluid into the wetland could easily smother bog turtles.

Nonetheless Sunoco boasts that "by all industry standards the HDD for the 20-inch pipeline at this location was a success."

There is no scientific or environmental reason for Sunoco to conclude in this Report that HDD should go ahead as planned but conclude in its Route 897 report that "an alternative plan of construction should be developed." If anything, this site with a history of IRs needs an alternative plan even more.

4. Conventional auger boring and other options should be considered. Sunoco's "business as usual" selection is unacceptable.

The alternatives analysis in the Report fails to consider conventional auger boring at all. Sunoco provides no explanation for its failure to consider auger boring. If the route were shifted a few hundred feet north or (possibly) south from its planned alignment, the wetland areas to cross would be narrower and easily bored across.

Alternatively, Sunoco could grout or case its HDD borehole to protect against IRs, and could dig deeper into the bedrock to make it harder for drilling fluids to make their way to the surface.

Frankly, Sunoco has many options before it to make this crossing safer and less likely to result in a take of a critically endangered species, a devastating spill in an exceptional value wetland, or contamination of water wells that Sunoco may or may not have identified. The Department is on notice that the "business as usual" option that Sunoco chose is unacceptably dangerous, and the Department should reject it.

5. The drilling techniques discussed in the conclusion are simply a recitation of existing normal techniques, not a solution to the problems Sunoco has been having.

In the conclusion of the Report, Sunoco recites a series of drilling practices and procedures that it says it has implemented or "can be implemented." This recitation appears designed to imply that Sunoco is taking measures to improve its drilling practices and make them safer. Notably, Sunoco does not actually say that these measures are new, or were not employed during its earlier, problematic phase of HDD across the Commonwealth. Based on inadvertent return reports, we know that at least the use of loss control materials on occasion was implemented during the drilling that has already occurred.

This is not to assail the use of improved drilling practices, if Sunoco is implementing any. But this recitation provides no assurance that the use of HDD at the HDD Site will be safe.

Conclusion

For these reasons, Appellants request that the Department deny the HDD reevaluation recommendation, as HDD is manifestly inappropriate as planned in this location.

Thank you for considering these comments. Please keep us apprised of your next steps on the HDD Site. (1-5) Letter – <u>Clean Air Council – 9-29-17 – Crossing of Wetlands A54 & A55 (Bog</u> <u>Turtle Wetlands)</u>