

**DEP Permit # E65-973
DEP Permit HDD Reference # PA-WM1-0023.0000-RD
DEP HDD # S1B-0190
Township – Sewickley
County - Westmoreland
HDD Site Name – Hildenbrand Road Crossing**

3rd Public Comment Period

Commentator ID #	Name and Address	Affiliation
1	Cynthia Walter 916 Essex Drive Greensburg, PA 15601	
2	Melissa Marshall, Esq. P.O. Box 408 1414-B Indian Creek Valley Road Melcroft, PA 15462	Mountain Watershed Association
3	Aaron J. Stemplewicz, Esq. 925 Canal Street 7 th Floor, Suite 3701 Bristol, PA 19007	Delaware Riverkeeper Network
4	Joseph Otis Minott, Esq. 135 South 19 th Street, Suite 300 Philadelphia, PA 19103	Clean Air Council
5	Alexander G. Bomstein, Esq. 135 South 19 th Street, Suite 300 Philadelphia, PA 19103	Clean Air Council
6	Kathryn L. Urbanowicz, Esq. 135 South 19 th Street, Suite 300 Philadelphia, PA 19103	Clean Air Council

1. Comment

I am a resident of Westmoreland county and reside near Sewickly Township. I benefit from the access to drinkable well water and healthy surface waters in this region. I am concerned about the inadequate plans for the horizontal directional drilling (HDD) and private well water testing outlined in the original and subsequent correspondence submitted to the DEP.

I am a scientist with over 25 years of experience teaching and research on water pollution in this area. Some of that research has been conducted and published with collaborations with DEP staff. I know the DEP is dedicated to protecting PA water resources and that we all know how easily our water is harmed and how difficult it is to remove the sources of pollution or provide high quality replacement water. I have been testing well water for years and know that good well water in a current well is highly valuable resource for the property owner and replacement with municipal

water does not carry the same value. Also, having the option to have a well installed in the future is a valuable feature of a property.

I believe the HDD process in this plan poses a serious long-term risk for degradation of surface and ground water supplies. Also, the current plan to test current water wells within 450 ft of operations is inadequate in regard to the distance, the schedule of testing and test substances.

Detailed comments are below. Thank you for the opportunity to participate in this process.

1. The plans do not adequately protect water resources in this region.

I do not see any provisions in these plans to monitor or protect ground water aquifers for future use.

A revised plan must make arrangements for all aquifers within 1000 feet of the path of the pipeline to be mapped and tested for water quality. If pipeline activities trigger such degradation, there must be penalties for degradation and plans for restoration, even if such work is long-term. Such plans exist for mining and this industry should be no exception.

Clean freshwater resources are among the rarest of all water supplies in the world. PA is unusually rich in these supplies, both on the surface and in ground water aquifers. Maintaining protection for ground water aquifers for future drinking water supplies should be a priority for the PA DEP. The DEP is the only agency with the longevity of mission to do this. In addition, they have the records of land use, soil and mining maps, water test results, etc. All citizens in PA benefit from clean water resources and thus the DEP is protecting our environmental and economic interests now because we all must plan for future water use.

PA geology is highly complex naturally and the often poorly documented history of industrial land use includes many abandoned coal mines accumulating mine drainage, 200,000 unsealed oil wells, many thousands of old vertical gas wells, and thousands of new horizontal gas wells, to name a few examples. Drinking water supplies include at least 1 million current wells that supply over 3 million users while the remaining populations depend on municipal supplies that are fed by a combination of surface and ground water sources. The Sunoco pipeline is transversing this landscape and the corporation must be required to document all current and future useable water sources as well as the risks to cross contamination that may be triggered by pipeline activities.

2. Current well water supplies should be considered within 1000 ft of operations, not 450 feet.

The documents do not supply scientific evidence that 450 feet is adequate to protect citizens from harm to current or future drinking water supplies. I suggest the minimum of 1000 ft to be used for these reasons:

a. The 1000 ft. distance has been accepted for other drilling operations, such as the drilling that occurs prior to fracking. Many studies have established that drilling alone carries substantial risks to well water supplies.

b. The 1000 ft. distance helps to compensate for the high degree of uncertainty associated with the complex geology and industrial history of this region. The geological analysis provides insights into that uncertainty:

(1) “Based on these approximations the water table is 25 feet or more below the revised boring entry/exit points” From: “4.0 SUMMARY AND CONCLUSIONS OF HDD HYDROGEOLOGIC EVALUATION” The height of only 25 feet is a small margin to predict that water under pressure will not escape from one aquifer into another. For example, mine drainage water under pressure from an old coal mine can easily breach a 25 ft height and carry older polluted water into a clean drinking water aquifer.

(2) “Mine subsidence in this region potentially causes differing degrees of fracturing within the overburden due to different zones of compressive and tensile stresses. Compressive stresses cause the strata that is generally horizontally bedded to either shift laterally along the bedding planes or rupture, which increases the lateral movement of groundwater along horizontal bedding plane partings. Additional vertical and high angle fracture planes are created by the tensile stresses. The increased secondary porosity creates additional pathways for the vertical movement of groundwater and groundwater storage (Iannacchione, et. al., 2008).” from “2.3.6 Potential Impact of Mining on Groundwater”

Clearly, the geologists are concerned that drilling could trigger movement of groundwater and cause contamination of well or future aquifer with undesirable chemicals from another aquifer. The DEP should consider this concern by shifting in shifting the precautionary zone to maximum possible, such as 1000 feet.

c. Although the 1000 ft. distance is arbitrary as was the 450 ft. distance, at least this distance has been used for the last 10 years. Therefore, the PA DEP and other scientists have much more evidence they can use in the event of future problems associated with pipeline drilling. This evidence may help to determine causes of the problems and solutions.

d. The 1000 ft. distance increases the protection of citizens and drinking water supplies. Protecting the environment for the current and future uses is the core mission of the DEP. Considerations of costs and convenience to corporations is not the primary concern of this public agency.

1. Well water testing was inadequate in the schedule and substances tested.
 - a. The testing schedule before, during and after drilling must track water quality and quantity across relevant seasonal changes.

Well water conditions prior to drilling must be established through independent, professional testing paid for by the pipeline company. The citizens along the pipeline route are not expected to have such records on their own. These citizens have been placed at special risk and they deserve time to establish water quality and quantity prior to drilling for at least one year across the range of seasons common to Pennsylvania, e.g., high rainfall in spring and lower rainfall in most late summers. During drilling, water testing should continue with at least two tests to confirm there are no effects. After drilling is completed, water testing should be done at least three times over the course of at least a full year, in all seasons, at high rainfall, low rainfall and normal rainfall. If water was impaired and appeared to be naturally restored, the minimum of water tests across three rainfall seasons should be continued for at least 3 years to prove that water quality and quantity was truly restored.

- b. Substances tested before, during and after should include the full profile listed by the DEP.

Table 1 below shows that radiation is among the tests recommended by Penn State and other states. Radiation is among several items not listed the current Hildebrand crossing documents. Municipal water testing requires radiation testing. It is well established that this region includes serious risks ground water contaminated with radioactive substances such as Radium-226, Radium-228, Radon and Uranium. The people impacted in this case deserve the most complete water testing before, during and after pipeline activities. (1)

Letter – [Cynthia Walter – 3-4-18 – Hildenbrand Road Crossing](#)

2. Comment

On February 27, 2018, Sunoco submitted a letter to the Department in response to the Department's February 8, 2018 requests for additional information regarding horizontal directional drilling ("HDD") Site PA-WM1-0023.0000-RD ("Site"). 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"), we respectfully submit these comments in reply.

Sunoco's reevaluation of the Site and its subsequent submissions to the Department have all suffered from two significant, overarching flaws: a lack of information, and a break-it-now-attempt-to-fix-it-later approach to planning that ignores the importance of preventing and avoiding harm. The Department has been pointed in its requests for additional information, focusing in on key health and safety concerns that are shared by the public. Appellants continue to support those requests and ask that the

Department recognize Sunoco's February 27, 2018 letter for the evasive, incomplete response that it is. Throughout the reevaluation process, it seems the Department has, in every instance, approved Sunoco's plans after Sunoco's second submission of supplemental information. Appellants urge you to continue pressing here.

1. / "1.a." In its February 8, 2018 letter, the Department asked Sunoco to "provide a justification, sealed by a Pennsylvania Professional Geologist, that wells outside of 150 feet of the profile will not be impacted." It has not done so. Sunoco's claim that water supplies outside 150 feet of the drilling profile will not be impacted remains wholly unsupported. Nevertheless, Sunoco has not retracted its claim. This arbitrary line-drawing is dangerous and misinforms the public. The fact that Sunoco has not gotten a Professional Geologist to weigh in on the scope of potential impacts to water supplies, as required by the Department, strongly suggests those impacts are in fact expected to be greater than Sunoco reported. Because Sunoco has not complied with the Department's request though, the public does not know whose water supplies are at risk. It is entirely possible that wells even outside of Sunoco's 450-foot area of focus will be damaged. Sunoco should still be required to produce a report, sealed by a Pennsylvania Professional Geologist, that discusses the extent of risks to water supplies, especially if those risks extend beyond 150 feet from the profile.

The Department also required that Sunoco "enter into written agreements with all private water supply owners whose water supplies may be impacted by this drill" to supply replacement water "to the satisfaction of all potentially affected water supply owners." The Department further directed that Sunoco "shall provide proof of these agreements to DEP." Later, concerned about being "too restrictive," the Department gave Sunoco an alternative to pursuing such agreements with landowners: to "avoid" impacts to water supplies. Sunoco has failed to comply with either option.

Sunoco does not even claim to have avoided potential impacts to private water supplies. Its "goal" is merely to "minimize" such impacts by using an additive in the drilling mud. The Department must not authorize plans that cannot avoid impacts to water supplies. Damage to a resident's private water supply is illegal and actionable trespass to property and nuisance, as well as a violation of environmental protection laws. Providing replacement water is not an acceptable alternative to avoiding impacts. The provision of a temporary water supply after contaminating someone's well is like offering someone aspirin after beating them up—it's the least you can do, but by no means makes the offense acceptable. The Department must prevent harm, not merely try to dampen it.

Nevertheless, even given the option to proceed with damaging water supplies where landowners have agreed to accept temporary water, Sunoco has not satisfied the Department's requirements with regard to those agreements. First of all, because Sunoco ignored the Department's requirement that a Professional Geologist weigh in on the distance from the drilling profile at which water supplies could be impacted, no one, including Sunoco, knows who "all the potentially affected water supply owners" are. Sunoco has focused in on eight parcels located within 450 feet of the

HDD, and provided incomplete information even with regard to those parcels. Sunoco claims “two parcels have three private water supply wells total and have accepted temporary water for these parcels.” Sunoco has not “provided proof of these agreements to DEP” as directed. In fact, the entirety of Sunoco’s discussion of these agreements is a single sentence. The Department is well aware from the history of this project that it would be foolish to simply take Sunoco’s word with regard to compliance.

3.a. The Department was right to require an analysis of well production zones; that analysis was explicitly required in the Order, and is critical to protecting water supplies. Sunoco appears to understand what such an analysis entails:

Any technically defensible analysis of this subject in this unique geology is dependent upon information on the orientation of the fissures and bedding plane partings; their width; do they dip or incline; and to what extent hydrostatic forces or the effects of gravity influence the movement of water in these bedrock features.

Sunoco also seems to think that providing such an analysis for the Site is too difficult and it admits it has not done so. Neither the Order nor the Department’s letter said that Sunoco only has to provide analysis of well production zones as it wishes. Sunoco agreed to be bound by the Order. If the geology at the Site makes it too difficult for Sunoco to comply with this fundamental portion of the Order, the answer is not that Sunoco can just go forward anyway without having met the requirement; Sunoco cannot proceed with construction at this location.

3.b. In its February 8, 2018 letter to Sunoco, which was a response to Sunoco’s January 4, 2018 submission of additional information, the Department requested a “map showing all private water supplies in the correct, surveyed locations.” Sunoco now claims that it provided an accurate map as part of its January 4, 2018 response. If such a map was provided to the Department, it was not posted on the Department’s website with the rest of Sunoco’s response and Appellants ask that it be made available to the public so it can be verified.

3.d. Sunoco has attached multiple water quality test results to this most recent response. It is not clear which parcel each water quality test applies to and which might be duplicative, but at least of some of the lab results are from August 2016, and plainly do not satisfy the requirements of the Order. Specifically, those 2016 tests do not test for Total Coliform or E. Coli, and do not include an explanation of the results, as required by the Water Supply Plan. This is especially concerning because if Sunoco is relying on non-compliant water tests here, it may be in other locations as well. The Department must verify that each parcel has received testing in accordance with the Water Supply Plan as revised August 8, 2017. If that has not occurred, Sunoco is violation of the Order.

3.e. Sunoco has not conducted water quantity testing as required by the Department except for on one parcel. It seems Sunoco made a single attempt to conduct a yield test at another parcel and that landowner declined that day. From Sunoco's explanation, it is unclear whether the yield test was actually unwanted, or if the landowner was just not available for additional testing the day it was offered. If the landowner was interested in having the yield test conducted on a different day, Sunoco should accommodate that request.

Thank you for considering these comments. Please keep us apprised of your next steps on this HDD Site. (2-6)

Letter – [Clean Air Council – 3-4-18 – Hildenbrand Road Crossing](#)