

**From:** [Steven Brown](#)  
**To:** [EP, SERO ECB](#)  
**Cc:** [Armstrong, Dustin](#); [Patterson, Patrick](#); [Shankar, Sachin](#); [Patel, Ragesh](#); [Fogel, Robert](#); [Nurk, Virginia](#); [Mcclennen, Bonnie](#); [Scott Lambert](#); [Rich Orlow](#); [Peter Fixler](#); [Steve Hann](#); [Joseph McGrory \(jmcgrory@hrmml.com\)](#); [Bernadette Kearney \(bkearney@hrmml.com\)](#); [John Nagel](#); [Tony Finding \(tfinding@bstiweb.com\)](#); [Nicholas Santella](#); [Ethan Prout](#)  
**Subject:** [External] Bishop Tube site - Comments on the Analysis of Alternatives and Proposed Response & Administrative Record  
**Date:** Monday, January 31, 2022 2:01:46 PM  
**Attachments:** [Bishop Tube final comments 1.31.22.pdf](#)

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Good afternoon,

Attached is a copy of East Whiteland Township's comments regarding the Analysis of Alternatives and Proposed Response and Administrative Record for the Bishop Tube site.

A hard copy will also be delivered to the Regional office this afternoon.

Thank you.

**Steven C. Brown**  
**Assistant Township Manager**  
**Director of Codes & Life Safety**

East Whiteland Township  
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# EAST WHITELAND TOWNSHIP

## THE HEART OF GREAT VALLEY

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**Board of Supervisors:** Scott Lambert - Chair • Richard Orlow - Vice • Peter Fixler - Member

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January 31, 2022

Mr. Dustin A. Armstrong  
Environmental Protection Specialist  
Pennsylvania Department of Environmental Protection  
2 East Main Street, Norristown, PA 19401  
Via email: [RA-EP-SEROECB@pa.gov](mailto:RA-EP-SEROECB@pa.gov)

Re: Comments to the Pennsylvania Department of Environmental Protection (PADEP)  
Regarding Former Bishop Tube Site, East Whiteland Township

Dear Mr. Armstrong:

East Whiteland Township (the Township) has conducted a review of the Pennsylvania Department of Environmental Protection (PADEP's; or Department) August 17, 2021, *Analysis of Alternatives and Proposed Response* and the *Administrative Record*, which opened for public comment on September 25, 2021 for the former Bishop Tube Site (the Site or site). In addition, the Township has solicited input from the public regarding the remediation of the Site at a series of public meetings, most notably on November 5, 2021, and January 20, 2022. These comments have been prepared and submitted in order to meet the January 31, 2022 deadline for public comments to the PADEP related to the *Administrative Record*. Included in these comments are a brief synopsis of facts pertaining to the Site which are broken into six broad categories and forty-four (44) questions (provided in italics) addressed to the PADEP. The PADEP's answers to the questions will allow the Township and the public to better understand the PADEP's proposed course of remediation and how the public and environment will be protected during this process.

Comments provided by the Township are based on the understanding that all environmental matters relevant to the Site, including the management of all environmental risk, are the responsibility and within the jurisdiction of the PADEP. The Township has been concerned by the pace of investigation and remediation activities at the Site to date and believes that its residents deserve a more rapid resolution of these conditions. Consequently, the Township expects that the PADEP will utilize its full legal authority and every available resource to ensure remediation of the Site is conducted in a timely fashion and is fully



protective of human health and the environment. Please accept the following comments and questions regarding the Site and the *Analysis of Alternatives and Proposed Response* on behalf of the Township.

## **I - REVIEW OF ADMINISTRATIVE RECORD**

Manufacturing operations began at the Site in 1951 and environmental investigations began in the early 1970s. Chlorinated solvent impacts were identified in the early 1980s. Investigations at the Site have continued through to the present. The primary contaminant of concern (COC) identified by the PADEP is trichloroethylene (TCE), however, a number of other volatile and semi-volatile organic compounds, as well as metals and polychlorinated biphenyls are also present at the Site above regulatory levels. For the purpose of remediation, the PADEP has divided the Site into three operable units consisting of soil (OU1), groundwater (OU2), and drinking water (OU3). Chlorinated solvent impacts in soils have been generally delineated, the exact extent of other COCs in soils has not been fully defined. The groundwater plume extent has been largely confirmed by groundwater monitoring wells, but the leading edge of the groundwater plume has been estimated by computer modeling. The vertical extent of the groundwater plume within bedrock has been predicted by the 2021 *Remedial Investigation Report* (RIR) to be limited by reduced fracture frequency and permeability with depth. The RIR asserts that there are no unacceptable human health risks under present site conditions; however, potential future human health risks exist related to consumption of groundwater and vapor intrusion from Site groundwater. The risk assessment prepared as part of the 2021 RIR also did not consider risks associated with residential use of the Site.

Remedial action objectives (RAOs), or the broad goals to be achieved by remediation, were defined by the PADEP for OU1 and OU2 as follows:

OU1 – Soils:” ...1) assuring that exposure pathways are eliminated or remain closed in accordance with an Act 2 Standard; 2) reducing contaminant transfer and migration from the soil into groundwater; and 3) preventing movement of contaminated soils by water or wind.”

OU2 – Groundwater: “...1) assuring that potential future exposure pathways resulting from groundwater contamination remain closed in accordance with Act 2; 2) reducing contaminant migration across the Source Property Boundary; 3) reducing COC discharge to Little Valley Creek (LVC); and 4) hastening retraction of the groundwater contaminant plume.”

No RAOs were explicitly defined for OU3. Irrespective of PADEP’s approach all properties within the plume of contamination that are presently utilizing wells for their water supply should be placed on public water.



The PADEP's *Analysis of Alternatives and Proposed Response* evaluated five potential remedies for soil and five potential remedies for groundwater. The PADEP selected in-situ treatment as the proposed remedial approach for both soil and groundwater. Three remedies for OU3 were considered; connection of the single impacted home to public water was selected. The estimated cost of the selected soil remedy is \$2.8 million but, for comparison the most expensive remedy considered, excavation and off-site disposal, is estimated at \$7.2 million. The estimated cost of the groundwater remedy is \$5.2 million with the most expensive remedy considered, hydraulic control, estimated at \$38.4 million. Somewhat more laterally extensive in-situ remedies for groundwater, excluding deep bedrock, as described in the 2021 *Feasibility Study* prepared by Roux are estimated to cost between \$16 and \$20.3 million but are not included in the remedial options evaluated. Cost for connection to public water to address OU3 is estimated at \$24,000.

The *Analysis of Alternatives and Proposed Response* identified a number of areas where additional site characterization of soil and groundwater were required as part of the remedial design process. Most notably, this included additional characterization of inorganic constituents in soil and groundwater, additional studies to determine if remediation of deep bedrock TCE is practical, determination of appropriate chemical treatments for each area, and what measures or limitations will be required to protect the LVC during remediation. In part due to these data needs, a number of key aspects of the remedial plan are defined only by a broad remedial approach and not by specific detail.

- 1) *Is the PADEP aware of any documents within its files, or in the possession of others, which are not included in the Administrative Record?*

## **II – REMEDIATION OF THE SITE MUST BE COORDINATED WITH A RESIDENTIAL USE OF THE SITE**

As noted in the *Analysis of Alternatives and Proposed Response*, the former Bishop Tube property is currently zoned for residential use. In addition, a preliminary land development plan for residential use of the property was approved by the Township in February 2021. An appeal of the Township's action was taken and the Township's approval has recently been affirmed by the Chester County Court of Common Pleas. Further, conditions of that land development plan approval require achievement of residential standards under Act 2 in general and remediation of soils to Residential Statewide Health Standards in three specific areas impacted by trichloroethylene (TCE). However, all documents prepared by the **"Bishop Tube Project Team"** address only non-residential property use. As set forth by the 2021 RIR, ". . . both the RIR and the FS assume that present and future use of the Site will be non-residential only", which is directly contrary to approved zoning and approved use of the Site. Standards to be achieved are not specified in the *Analysis of Alternatives and Proposed Response*.



Regardless of who is responsible for remediation of the Site, the PADEP is responsible for ensuring the remediation as a whole is protective of human health and the environment. The **PADEP must consider the approved residential end use of the property throughout the remedial process.** Achievement of residential standards under Act 2 must be the PADEP's ultimate goal for remedial action, and Residential Statewide Health Standards must be the goal for remediation of Site-related contaminants in soils. Consequently, the most stringent residential standards must be applied when designing, monitoring, and evaluating remedial actions.

- 2) *Given that the Township's preliminary land development approval contained conditions for residential site use, which conditions were accepted by the developer, why has the PADEP not required the planning of remediation to achieve residential standards?*
- 3) *How does the PADEP intend to ensure the safe residential use of the property if remediation is not conducted to achieve compliance with residential standards?*
- 4) *How does the PADEP intend to resolve the disconnect in assumed site use, applicable standards, and exposure pathways between the scope of work which the PADEP has required of the Bishop Tube Working Group and that which the Township has required as part of future development?*

### **III - THE PADEP MUST PROVIDE ADDITIONAL CLARITY REGARDING THE PRE-REMEDIAL DESIGN INVESTIGATIONS REQUIRED AT THE SITE**

The *Analysis of Alternatives and Proposed Response* identifies a range of topics where additional evaluation is required prior to developing a final remedial design. Some of these topics will have a significant bearing on remedial design or remedial outcomes but little information was provided by the PADEP on how these topics will be addressed. The Township believes that additional information is required before the public can provide meaningful comments on remedial plans. Therefore, the PADEP **must** ensure that adequate opportunity is provided for additional and continuing public input into remedial decisions as this information becomes available. The Township requests no less often than quarterly update meetings with any additional information being distributed on an interim basis when completed. The format of public input must allow for meaningful dialogue including formal comments and the opportunity for asking questions and receiving answers from the PADEP within a reasonable time frame, preferably at a PADEP public meeting.

- 5) *How does the PADEP intend to solicit additional public comment once pre-design investigations have been completed and a detailed remedial design is developed? Will the format of public input allow for asking questions and receiving answers within a reasonable time frame?*

The Township highlights the following topics where significant data gaps exist and additional information on the PADEP's and the Bishop Tube Team's plans for investigation are warranted:



- **Evaluation of emerging contaminants:** 1,4-Dioxane was not historically well characterized at the Site; however, data collected in 2021 confirms it is a contaminant of concern (COC) exceeding Medium Specific Concentrations (MSCs) in the primary source area. Techniques for remediation of 1,4-dioxane differ from those for the remediation of TCE. Other emerging contaminants also warrant evaluation at the Site, specifically per-and polyfluorinated alkyl substances (PFAS), which have not been evaluated at the Site despite being the subject of increased attention and regulation by the PADEP under the Act 2 Land Recycling Program. Recent actions by the PADEP include the development of Medium Specific Concentrations (MSCs) for select PFAS compounds in soil and groundwater. Evaluation of the range of commonly quantifiable PFAS compounds is warranted to determine if operations at the Site released these compounds into the environment and to evaluate if regulated or unregulated PFAS compounds at the Site present a potential risk to human health and/or the environment.
- 6) *Will additional evaluation of 1,4-Dioxane be conducted at the Site? How will the presence of 1,4-Dioxane affect remedial design?*
  - 7) *What, if any, evaluation has the PADEP performed to evaluate the risk of PFAS contamination at the Site? Has sampling for PFAS compounds been performed at the site or requested by the PADEP? If not, why has no sampling for PFAS compounds been required?*
- **Delineation of soil impacts:** Full horizontal and vertical delineation of soil impacts has not been achieved. Full delineation/characterization is necessary to develop accurate remedial plans and monitor remedial effectiveness. The execution of the remedial investigation assumes future non-residential site use, and may result in data gaps associated with delineation of COCs in soil with respect to residential MSCs. This is notably the case for hexavalent chromium (Cr VI), polychlorinated biphenyls (PCBs), and benzo[a]pyrene (B(a)P), which are not delineated to residential MSCs. In addition, recent sampling has evaluated Cr VI presence in only some of the proposed treatment areas (only where total chromium exceeded the residential used aquifer soil to groundwater MSC, excluding where it exceeded the lower residential direct contact MSC). Pre-remedial design sampling **must** include delineation of all Site-associated COCs to the most restrictive MSCs and evaluate all areas of concern.
- 8) *Will the PADEP require delineation of all soil contamination, excluding only adequately demonstrated and documented natural background conditions, to the most restrictive residential MSCs, across the entire site?*
  - 9) *Who will be responsible for completing soil delineation, on what timeline, and how will this information be incorporated into the remedial design?*



- **Horizontal and vertical delineation of groundwater:** Vertical delineation of groundwater impacts and, by inference, the vertical delineation of residual dense nonaqueous phase liquid (DNAPL) source material has not been performed. Some of the highest TCE concentrations are observed in the deepest (i.e., 400 ft) monitoring wells. While the 2021 RIR asserts qualitatively that deep bedrock impacts are less mobile, no quantitative assessment of fate and transport, COC mass distribution, or flux are presented to support this assertion. To the contrary, previous quantitative assessment of fate and transport at the Site (Baker, 2004 *Phase III Supplemental Groundwater Investigation Report*) suggests that the deep bedrock plume has the potential to expand over time. The 2021 RIR states that deep bedrock impacts are largely irrelevant to risk, as risk is driven by shallow groundwater which may impact surface water or result in vapor intrusion. However, prior fate and transport assessment by Baker (2004) suggests that the deep bedrock plume may eventually discharge down gradient of the Site. In addition, a persistent deep bedrock source is incompatible with the PADEP's stated remedial action objective of reducing COC mass flux across the property line and retraction of the overall groundwater plume. As a result, additional vertical delineation and quantitative evaluation of mass flux with depth is warranted as part of the pre-remedial design investigation. Remediation of deep bedrock may be necessary to achieve RAOs.

10) *When will the PADEP require additional delineation of deep bedrock impacts?*

11) *Will quantitative evaluation of the deep bedrock source strength and plume mobility be required as part of pre-remedial design activities?*

- **Evaluation of potential impacts to Little Valley Creek from remediation:** The *Analysis of Alternatives and Proposed Response* indicates that risk of discharge to LVC during remediation may limit the ability to implement the soil remedy in some areas. The PADEP has also recognized a need to identify measures to ensure protection of LVC from possible collateral damage due to remediation. Shallow groundwater discharge at the Site is a significant component of flow within the LVC. The *Feasibility Study* identifies a number of potential negative effects of remediation which might impact LVC, including desorption of some contaminants and discharge of chemicals used in remediation into the LVC. Changes in groundwater chemistry (e.g., reducing conditions including high dissolved iron) could also have a negative impact on water quality in the LVC.

12) *What potential impacts to LVC will be evaluated, what will be the nature of the evaluation, and how will the PADEP determine if risks to LVC require mitigation?*

13) *If mitigation of impacts to the LVC is required, what types of mitigation may be implemented within or outside of the scope of the proposed remedy?*



14) *Could and under what conditions, would the PADEP determine that risks to the LVC outweigh the benefits of remediation in one or more treatment area? How would such a determination be documented by the PADEP?*

#### **IV - ADDITIONAL COMMUNICATION FROM THE PADEP IS REQUIRED TO INFORM THE COMMUNITY HOW CHALLENGES TO SUCCESSFUL REMEDIATION WILL BE MET**

It is the Township's understanding that prior remedial efforts for soil, undertaken by the property owner were unsuccessful, and field scale feasibility testing of reductive dechlorination in soil in 2015 was generally ineffective. This history highlights management and technical challenges for remediation of the Site. A number of aspects of the conceptual site model (CSM), notably the large vertical and horizontal extent of groundwater impacts, the extensive impacts in fractured bedrock, and low regulatory limits for many of the COCs result in complex and challenging conditions for remediation. Project management by both the PADEP and the Bishop Tube Project Team must address these challenges for remediation to be successful. Adaptive site management is a flexible approach to evaluating and adjusting remediation in an iterative fashion. This can include ongoing performance assessment and rapid modification to remedial strategies. Such an approach may assist in addressing the challenges present at the Site (e.g., Interstate Technology Regulatory Council [ITRC] guidance on Remediation Management of Complex Sites).

15) *How will the PADEP implement adaptive management techniques, such as rapid adjustments in remedial methods, including the designation of sufficient staff and resources to such management?*

Additional clarification must be provided for technical and management strategies in order to address the following:

- **Technical approaches to remedy implementation:** The remedial approach presented in the *Analysis of Alternatives and Proposed Response* is only a conceptual outline. The failure of feasibility studies using reductive dechlorination processes must be addressed in implementing groundwater remediation. Feasibility testing illustrated challenges including the transient effect of reductants, complex flow in soil and fractured rock, and the potential for production of toxic daughter products (e.g., vinyl chloride). The 2021 *Feasibility Study* identified a number of implementation concerns, notably changes in fate and transport which may induce additional vapor intrusion concerns, surface releases of chemicals used in remediation, failure to deliver chemicals to the appropriate zone within the aquifer and rebound of contamination. In particular, single injection groundwater remedies as proposed by the Bishop Tube Project Team may be short lived or result in incomplete mineralization of contaminants. Additional consideration of groundwater flow rates, DNAPL mass, and DNAPL to groundwater mass flux may be required to design and effectively integrate the soil and groundwater remedies.



16) *What approaches will the PADEP require in order to overcome challenges such as effective distribution of chemicals used for remediation, generation of toxic daughter products, and potential for rapid rebound in groundwater concentrations?*

17) *What specific assessments will be required to identify the chemistry or chemistries to be used for in-situ remedies for soil and groundwater?*

18) *Should remedial injections fail to achieve the levels consistent with demonstration of residential standards and or other RAOs, will additional rounds of injections, not included in the proposed remedy or cost estimates, be required by the PADEP?*

- **Impact of bedrock DNAPL on remedy selection and design:** The Bishop Tube Project Team has proposed that remediation of deep bedrock is technically impracticable (TI). However, as noted above, a persistent TCE source within deep bedrock is incompatible with some of the RAOs proposed by the PADEP. The mass and vertical extent of residual DNAPL within deep bedrock has not been quantified. This mass will provide an ongoing TCE source, which may call into question the long-term performance of groundwater remediation. The PADEP must provide the public additional information on how it intends to evaluate and address this important concern.

19) *Why does the proposed remedy not include remediation of deep bedrock?*

20) *Does the absence of remedial measures for deep bedrock indicate that the PADEP is in concurrence with the Bishop Tube Project Team's assertion that remediation of deep bedrock is technically impracticable?*

21) *In what manner, and by what metrics, will the PADEP evaluate the impracticability of deep bedrock remediation? How will impracticability be distinguished from remedial measures which are practicable but costly?*

- **Financing of remediation:** While the *Analysis of Alternatives and Proposed Response* provides approximate costs for the described remedial approach, is the Bishop Tube Project Team prepared to finance the selected remedial action? Costs associated with the proposed groundwater remedy are significantly less than those of more extensive in-situ groundwater remediation described within the 2021 *Feasibility Study* and correspond to those in the FS addendum describing an integrated soil and groundwater remedy prepared specifically at the PADEP's request. However, were the PADEP to require remediation of deep bedrock, remediation, costs would increase substantially.

- 22) *Why was Remedial Alternative #8 selected for evaluation within the Analysis of Alternatives and Proposed Response rather than more extensive remedial activities utilizing broadly similar technology as described in Remedial Alternatives #3 and #5?*
- 23) *Will cost limit the scope of remedial activities, or will the PADEP commit to the most effective remedial approaches for the community and environment regardless of the cost?*
- 24) *Is it expected that the integrated remediation of soil and groundwater, as described in the Analysis of Alternatives and Proposed Response, will be undertaken by the responsible parties?*
- 25) *Are the responsible parties capable of funding the remediation within the time frame outlined; and if not, is the PADEP willing to move forward with the remedial action regardless of responsible party involvement in funding the remediation?*
- 26) *Given the technical challenges presented by the Site, and the possibility of deep bedrock remediation, which might equal or exceed the cost of the currently proposed remedy, how will the PADEP manage the potential for increased remedial cost during implementation, both with respect to the responsible parties and internally within the PADEP?*

A successful remediation requires that the PADEP communicate regularly and effectively with the public and other stakeholders. These additional challenges, implementation concerns, and questions point to the importance of clear, ongoing, and timely communications with the public.

- 27) *Who will be the public point of contact at the PADEP for matters pertaining to remediation at the Site? How will this point of contact be empowered to respond to public comments and concerns throughout the pre-remedial investigation and design process and during remediation?*

## **V - THE PADEP MUST MAKE PROACTIVE EFFORTS TO ENSURE THE SAFETY OF THE PUBLIC AND CLEARLY COMMUNICATE HOW THESE EFFORTS WILL BE DEVELOPED AND EXECUTED**

Nearby residents have expressed significant concern regarding potential exposure to contaminants associated with the Site during the past, at present, and during future remediation. To appropriately address community concerns, the PADEP must provide close oversight and ensure adequate communication and full transparency with the public early in the remedial process. Specifically, the following topics warrant additional attention from the PADEP and the Bishop Tube Project Team:

- **Off-site vapor intrusion:** Sampling conducted through the most recent remedial investigations demonstrates that conditions at the Site have resulted in levels of TCE and other volatile



chlorinated compounds in indoor air within residential and commercial off-site structures at concentrations that exceed default screening levels associated with a site-specific standard. Ongoing monitoring of indoor air quality and of other site conditions will be required to ensure that level of exposure remains acceptable regardless of remedial activities, new construction, or other changes in property use.

28) *For which properties, and at what frequency, will the PADEP require ongoing monitoring of indoor air quality and inspection for changes pertaining to vapor intrusion? If this has not yet been determined, when will the community be informed of the PADEP's decision regarding this matter?*

- **Risk assessment:** Due to the nature of the scope of work required of the Bishop Tube Project Team by the PADEP, risk assessments presented in the RIR were limited to pathways associated with groundwater and only under present site conditions. This evaluation was limited to evaluation of risk associated with vapor intrusion and exposure to surface water. The risk associated with other potential future exposure pathways associated with groundwater, such as volatilization into trenches during construction, has not been quantified. A full risk assessment for the approved residential Site use has not yet been conducted, making it impossible to evaluate remedial requirements for safe use of the property. While responsibility for remediation of the various media at the Site may or may not fall to different parties, the PADEP is responsible for oversight of remedial activities as a whole and must ensure that post-remedial conditions are fully evaluated for all media and potential exposure pathways.

29) *At what point in the remedial process will risk associated with residential use of the property be assessed and by whom?*

30) *Should redevelopment of the Site not occur, or be significantly delayed, who will undertake assessment of the exposure pathways excluded from the scope of work required by the potentially responsible parties?*

- **Safety during remediation:** The *Analysis of Alternatives and Proposed Response* provides little information regarding how the PADEP and the Bishop Tube Project Team intend to ensure the safety of residents and local businesses during remedial activities. Residents have expressed concern regarding the potential for exposure during construction of remedial measures and the PADEP must be proactive in communicating how oversight of measures to control exposure will be provided. As part of the development plan approval process, the Township has required that any development comply with all recommendations provided in the Agency for Toxic Substances and Disease Registry (ATSDR) memorandum, dated April 6, 2016, suggesting measures to mitigate environmental exposures associated with the Site. Among other things, these recommendations included controlling vapors, dust, and runoff during remediation. While detailed plans for monitoring and mitigation may not be developed until later in the remedial process, the



PADEP must outline controls (e.g., dust control and monitoring, vapor suppression, vapor capture, enhanced erosion and sediment controls, or other fence line monitoring during remediation) expected during remediation as well as the process by which necessary steps will be determined. The public must have an opportunity for input into these important decisions regarding remedial implementation.

- 31) *What environmental monitoring measures will be required during remedial construction to protect workers and the public? If not known at this time, how will these measures be determined?*
- 32) *What measures for protection of human health and the environment will be required during the active portion of remedial action? If not known at this time, how will these measures be determined?*
- 33) *When and how will PADEP provide the public, who may be affected by remedial activities, an opportunity to provide input on monitoring and mitigation required during remediation?*
- 34) *How will the PADEP provide oversight of measures to control exposure during remediation, and how will PADEP proactively communicate these oversight measures to the public?*
- **Institutional and engineering controls:** As acknowledged within the *Analysis of Alternatives and Proposed Response*, institutional and engineering controls will be required as part of site remediation. Further information must be provided on how these controls will be developed and implemented, particularly given the expectation that responsibility for remediation of various media at the Site may be divided between various parties.
- 35) *Given the uncertain and extended time frame of remediation, at what point in the remedial process will the nature of required institutional and engineering controls be determined?*
- 36) *How will responsibility for development and implementation of these controls be divided among the various parties involved (e.g., responsible parties vs a future developer)?*

## **VI - THERE IS A NEED FOR TIMELY AND RIGOROUS OVERSIGHT BY THE PADEP AND THE TOWNSHIP SHOULD NOT HAVE ANY ROLE IN MANAGING ENVIRONMENTAL RISK**

Based on the past history of the Site, the PADEP must facilitate a timely and complete remediation through active management and oversight. The pace of investigation and remedial activities to date have not been adequate to address the level of public concern, and potential risk associated with the Site. The Township believes that remedial action should be taken as soon as possible. It should be possible and would be beneficial to fast-track initial aspects of the remediation, such as designing and implementing the in-situ soil mixing, while design work is ongoing for the groundwater remediation.



37) *When are remediation activities at the Site expected to commence?*

38) *How will the PADEP ensure that remedial action progresses as rapidly as possible and in accordance with the time frame outlined in the Analysis of Alternatives and Proposed Response?*

39) *The PADEP should provide a timeline of specific tasks, projected start dates, completion dates, and responsible parties for pre-remedial design investigations and remedial activities to assist the Township and public in understanding the remedial process. The PADEP should update this timeline with an increasing level of detail as work proceeds. When can the PADEP provide an initial timeline?*

As a result of the slow pace of remediation to date, the Township has been proactive in attempting to manage potential environmental risk(s) at the Site through the conditions of land development approval. This role is more appropriately filled by the PADEP. The Township cannot take on the PADEP's role. The Township requests clarification on how the PADEP intends to address the following:

- The Township normally has responsibility for stormwater management activities, and these requirements are part of land development planning and construction. However at the Site, stormwater best management practices will be a part of remedial activities and evaluation may require additional effort or expertise for inspections or maintenance.

40) *Who will be responsible for final design, construction, and long-term operation and maintenance of best management practices incorporated into the remediation?*

41) *How will the Township and public be kept informed by the PADEP of what the PADEP perceives to be the Township's role in future remediation, including any maintenance and inspections?*

- In addition, and due to the absence of proactive management by the PADEP, the Township has mandated, as part of its preliminary land development approval, a number of requirements related to vapor intrusion mitigation. Despite these efforts, which would normally be undertaken by the PADEP, the Township should not be responsible for ensuring effectiveness of vapor intrusion mitigation measures nor should a homeowner's association be responsible for ensuring maintenance and operation of such environmental safety measures which will be located within the footprint of residential units. Regardless of the parties implementing these aspects of remediation, the PADEP must take on the role of ensuring public safety and proactively communicate how these issues will be addressed.

42) *How does PADEP intend to provide oversight of vapor intrusion mitigation systems associated with future development? Will these activities be managed as part of the present remediation or through a separate remediation?*

43) *What party will retain financial responsibility for operations and maintenance of vapor intrusion mitigation systems?*

- Although the Township is involved in various aspects of land development, it should not be responsible for enforcing or ensuring the protectiveness of other potential institutional and engineering controls. This includes environmental considerations associated with changes in property use, construction or renovation, soil management plans, prevention of exposure to workers and residents during remediation/construction, maintenance of soil caps or control of groundwater use. While the Township is willing to work cooperatively with all parties to ensure the safety of residents and the environment, ultimate responsibility for all these issues rests with the PADEP, and the PADEP must be proactive in its communication with all parties including the public to make this clear.

44) *Considering the extended timeline of remediation and Site redevelopment, as well as the division of remedial responsibilities and exposure pathways between multiple parties, how will the PADEP ensure that all potential exposure pathways associated with the Site are adequately controlled now and in the future?*

In conclusion, the Township expects that the PADEP will ensure a timely and complete remediation of the Site which is fully protective of human health and the environment, and will not place cost above that goal. The PADEP must explicitly address the fact that future residential use of the former Bishop Tube property has been approved consistent with the property's zoning. Significant data gaps exist that must be addressed, including the evaluation of emerging COCs. The Site has, and continues, to present technical and management challenges that must be addressed. In particular, a persistent TCE source within deep bedrock is incompatible with certain RAOs. The PADEP must accept and execute its responsibility for ensuring public safety and not place that burden on the Township or other parties. Finally, as additional studies are made, data gaps are closed, and remedial actions take place, the PADEP must ensure adequate and timely communications with the Township, with the public, and facilitate meaningful dialogue between all parties.

Sincerely,



Scott Lambert

East Whiteland Township Board of Supervisors Chairman



Cc:

Richard Orlow, East Whiteland Township Board of Supervisors

Peter Fixler, East Whiteland Township Board of Supervisors

Steve Brown, East Whiteland Township Assistant Township Manager

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