

**COMMUNITY ADVISORY GROUP**  
**BoRit Asbestos Area**  
**Ambler / Upper Dublin / Whitpain, Pennsylvania**

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**1. Questions/Comments on “Stream Bank Stabilization Plan” presented by Eduardo Rovira.**

- 1.1. On the organization charts in the presentation, Upper Dublin Township is missing (where Ambler and Whitpain were included).

*We will include Upper Dublin in future presentations.*

- 1.2. When doing the hydrology studies, what was the determining factor to go with the 25 to 100-year storm calculations? Ambler is currently doing a study on upgrading the Loch Alsh Dam and the calculations for it are closer to a 1000 year storm. The DEP may have the numbers or I can get the calculations from [the Borough] Engineer if you would like to see them. I just want to be sure that the work that is performed will be able to sustain a large storm. [Ambler] has had a retaining wall fail which was designed by PEMA. The cost to repair fell on the Borough.

*DEP: Our Watershed engineer advises that we do not use atmospheric or watershed data as a determining factor for the increase in frequency of storms. For the hydrology study, the determining factor was information from FEMA on the water surface elevation. As you know, the BoRit site along the Wissahickon Creek has uneven bank heights at many different cross sections. The right bank elevation, looking downstream, is 4-6 feet in elevation, where the left bank is 8-15 feet high. This means that the stream will go off the right bank during a 25-30 year storm event. With this in mind, the deciding factor in designing bank stabilization for this site is to have the water surface elevation equal on both sides during peak flows or when the stream starts to go over the bank. To accomplish this, it was determined that the stabilization should be as follows:*

*22-30 year storm event, 0-8 ft along the slope, should be covered by R-6 to R-7 rip rap;  
30- 50 year storm event, 8-12 ft, should be covered by bio-engineering (rock and green)  
50-100 year storm event, 12 ft and up, will be covered by heavy vegetation.*

*Any major event above the 30 year elevation will have the water spread along the right bank and should not affect the BoRit site.*

*DEP is aware of the wall collapsing upstream from the site. We believe this was caused by under mining and poor construction. EPA and DEP proposed a couple of solutions for the Borough to reduce future flooding events.*

*For the calculation for the Loch Alsh Dam, DEP considered only FEMA 100 year flood elevation as an evaluating point for reference only.*

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*EPA: A combination of hardened structures will be used from the toe to an elevation equal to the right bank (about the same as the 100-year flood). The size of the rip rap and the elevation at which the hardened structures will “blend” with the soft/green structures will depend on the calculations of the shear stress.*

This waterway was much smaller when compared to the area you are working on. If this were to fail, who will replace it?

*We do not anticipate a need for long-term maintenance. If a problem is brought to EPA’s attention in years to come, EPA will assess the need for further work or repair.*

What is the guarantee? This is something the Borough cannot afford to replace.

*We believe that our design will work.*

- 1.3. The health and safety plan (HASP) calls for a hardhat, safety glasses and a safety vest onsite (Modified Level D), yet the photo presented by one CAG members showed a worker walking by heavy equipment without a hard hat, vest and possibly not safety glasses. How seriously is EPA enforcing their subcontractor to comply with their own HASP?

*All contractors on the site have been instructed to comply with the Health and Safety Plan. In addition, EPA conducts a daily morning safety meeting in which activities for the day are discussed and application of the HASP is reviewed. HASP requirements can be revised during the project based on site conditions and activities. Also, complete Level D attire is not essential when site activities cease (e.g., during breaks).*

*The ERRS contractor staff are all professional environmental workers, most of whom have been with WRS/Compass for a number of years. They have an extensive training background including OSHA and EPA training. They have a great deal of experience having worked on many different environmental cleanups, decontamination procedures and site restoration jobs in their careers. In fact, before any work began on the site, ERRS conducted a 4-hour training session, site-specific, on asbestos, asbestos-related injury and the HASP. The HASP is reviewed routinely by the contractor staff.*

- 1.4. Does the site have an approved Soil Erosion and Sediment Control Plan? Is the silt fence anchored into the ground per substantive SESC requirements, especially near the bio log and grass planting areas near Tannery Run? If not, what measures are being used to prevent eroded soil from washing off-site or into the stream?

*Prevention of soil erosion along the banks of the creek is the main goal of the removal action. Permits are not required for actions conducted under the Superfund law; however, in undertaking those actions, EPA must comply with the substantive requirements of regulations to the extent practicable. EPA is working closely with PADEP and Montgomery County to make sure we comply with the substantive requirements of regulations.*

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- 1.5. What is the asbestos content of the soil moved to make the access roads?

*No asbestos soils have been moved during the construction of the access roads. The access roads were/will be constructed on top of the existing surface soils. Minimal soil disturbance has occurred during clearing and grubbing activities. Once the vegetation is cleared, we lay down a fabric on top of the surface and layer the fabric with approximately 6 inches of 2A modified stone.*

*Recent analyses of surface soils near Tannery Run revealed 0.4% asbestos. Historical soil analyses in different portions of the site have shown levels to approximately 35%. Recent analyses of thin "waste layers" on the site surface have ranged from 10.2% to 28.5%.*

- 1.6. How far along with the pre-removal construction activities do you anticipate being prior to submitting a work plan to the CAG? Chopping trees and placing stone on geotextile is not obtrusive work, but using a bulldozer to alter the pre-existing topography (e.g., proximate to Tannery Run) is obtrusive work and should require a work plan prior to any further activity.

*We should have the final concept by the end of August. As soon as we have it, we will provide a copy to the CAG for their view.*

*We anticipate another 2 to 3 weeks of preparatory work prior to beginning stabilization of the Wissahickon Creek. Our goal is to start construction no later than mid September.*

*The existing topography has not been altered anywhere at the site, except to add soil in several locations; only vegetation has been cleared. The area that was cleared at the pile property was the flat part. EPA has not cut into the pile nor undertaken any earthmoving activities on the pile. Interested residents may view the topography survey conducted prior to any field activities by contacting EPA.*

*An important note: The EPA Removal Program does not typically provide advance copies of work plans, designs, etc. to non-governmental entities for review. In this case, we are presenting the working design of the first phase of the restoration (Wissahickon Creek) to the CAG for your information and understanding. We are open to comments and suggestions that may improve the project, but EPA is not required to seek approval from the CAG for this work. We have incorporated much of the input from the CAG we received last December into the designs that we have completed. There will be time and opportunity for the CAG to view plans for subsequent phases of the stream bank project, and EPA will continue to be interested in suggestions from the community that further our mutual goal of successfully addressing the contamination at the site.*

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- 1.7. How much signage is up along the fence? Do any of these signs provide an EPA phone number to call for further information or to report unauthorized entry?

*We installed signage in accordance with the NESHAP requirements..*

*As previously discussed, unauthorized entry is considered trespassing, which is a civil violation that EPA typically does not become involved in enforcing. Any unauthorized entry noted by citizens should be reported to the Ambler Borough, Upper Dublin or Whitpain Township Police Departments. All municipalities have been contacted by the Agency and made aware of the site. Any unauthorized persons seen on-site by EPA staff or contractors will be requested to leave the site. If the individual refuses, EPA will contact the appropriate police department and property owner.*

- 1.8. The ACE bank stabilization report calls for toe protection on both sides of the Wissahickon Creek. Is this still the plan? How will the toe stabilization be placed on the far side of the stream?

*The USACE report is not the final determiner of EPA's actions. We have utilized their suggestions throughout the design of the stream bank project and will continue to rely on their expertise throughout the implementation of the plan. The primary objective of the removal action is to prevent asbestos-containing material ("ACM") migration from the soil into the air, prevent lateral migration of asbestos into the adjacent stream, and prevent possible direct contact with exposed ACM. There is no ACM on the right bank, therefore, it is outside the scope of the removal action. In addition, the stream is wide enough that the work on the left bank will have minimal impact, if any, on the right bank.*

- 1.9. The report also calls for hydraulic modeling to determine the effects on the stream due to the channel and over-bank alterations. It appears that the EPA has already selected the stabilization plan without the benefit of such modeling (the final solution has been made without supporting backup). What information would be required for EPA to alter their preliminary (or final) design?

*EPA believes we have enough information to proceed with our conceptual design. We are conducting, and will conduct in the future, hydraulic modeling for the phases of work that require further information.*

*EPA has not yet determined the final stabilization plan, however the conceptual approach will very likely be as presented to the CAG and public. We are still finalizing the details of the design, and we will modify our design based on the results from the hydrology study. However, we expect that most of the modifications to the draft plan will be regarding specifications of the materials (e.g., size) and design elevations. We most likely will still use the combination of materials mentioned at the meeting (rip rap, geo cells, bio logs, reinforced turf mats).*

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- 1.10. The ACE report calls for removal of ACM from exposed areas along the bank to facilitate shaping of the stream channel and placement of the stabilization material. How is this material going to be removed, under what conditions and how will it be monitored?

*We will remove exposed ACM only where necessary. We might have to remove some large (loose) pieces to have a “workable/flat” surface. Most likely, removal of ACM will be by hand as we do not intend to dig or excavate. Engineering controls (dust suppression) and air monitoring will be in place during any ACM removal activity.*

*In many areas, soil or another covering material may be used to create a workable surface in contrast to removing ACM.*

- 1.11. The ACE recommended a pleasing "green" solution for the area between the toe and upland area, such as a soil-choked riprap with willows and a riverbank mix planted to provide root system to further stabilize the banks. When did the EPA reject the ACE recommendation and go with the concrete wall solution and based on what facts and supported engineering judgment? Does the detriment of future use of the stream corridor (e.g., park area) have any role in this decision making process by the EPA? What basis did the EPA use to go with the concrete-filled geocells? At what velocity does concrete-filled versus soil-choked geocells make more sense? What is the anticipated velocity along the stream wall during 2-, 25- and 100-year storms?

*Our initial consultations with USACE indicated that “hard” stabilization measures would be most effective. Based on comments from the CAG, we asked USACE to reevaluate to see if green alternatives might work. USACE and other government agencies followed up by indicating that while green solutions are viable, the shear stress at the toe could damage these structures. Therefore, we decided to err on the side of caution and use sturdier structures at the base of the construction and go “green” at higher elevations since shear stress is more pronounced at the toe and lessens with elevation. We are committed to using “green” solutions where they are viable and more likely to be durable.*

- 1.12. No discussion or mention of an Erosion & Sedimentation Control Plan - The permittee shall implement and monitor the Erosion & Sedimentation Control Plan prepared in accordance with Chapter 102, so as to minimize erosion and prevent excessive sedimentation into the receiving watercourses or bodies of water (Wissahickon Creek, Tannery Run, and Rose Valley Creek). Also for dust control at the site from the use and movement of construction vehicles (Obviously this is important with respect to the ACM on site) to avoid and minimize the introduction of ACM particulates into the air column during prolonged dry spells. Suggest the use of a minimum soil cover between construction vehicles tires and ACM, mulching, anchoring of mulching after its application to prevent being windblown and water trucks to keep soil surface moist and prevent wind erosion.

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*Response activities conducted under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) are exempt from the requirement to obtain Federal, State or local permits related to any activities conducted completely on-site. (See CERCLA Section 121 (e)(1), and the National Oil and Hazardous Substances Pollution Contingency Plan (NCP) at 40 C.F.R. Section 300.400 (e)(1)). However, EPA must comply with the substantive requirements of the applicable erosion and sediment control regulations to the extent practicable.*

*We have a water truck on-site for daily dust control activities. The construction of access roads (6 inches of 2A modified stone on top of a fabric) is to prevent any soil disturbance by construction vehicles tires. All vehicles are only driven on the stone roads.*

- 1.13 Wissahickon Creek and its tributaries are classified as a Trout Stocking Fishery (TSF) per the Chapter 93 Water Quality Standards (Commonwealth of Pennsylvania, Pennsylvania Code, Title 25. Environmental Resources, Department of Environmental Resources. Construction timing restrictions in the receiving watercourses due to any earthmoving, excavation or other construction activity within the stream channel is prohibited in stocked trout streams from March 1 through June 15, unless written approval is obtained from the Pennsylvania Fish & Boat Commission.

*No field activities affecting the creek took place from March 1 through June 15. Prior to this period in 2009, EPA will consult with the Pennsylvania Fish & Boat Commission regarding planned activities.*

- 1.14 Avoid the use of large plant species or plant species that will grow to a large size and deep rooted species that may be uprooted to large flooding and wind weather-related events and re-expose buried ACM.

*As part of the design work, we are consulting with a tree expert to obtain advice on various tree-related issues.*

- 1.15 Geo cells should be filled with native soil and/or stone that are similar in color to the surrounding geologic and soil material found at the site.

*When possible (higher elevations), the geo cells will be filled with soil and/or stone. Closer to the toe, they will most likely be filled with concrete for strength. We will maintain awareness of this comment.*

- 1.16. EPA [should] hire an Environmental Monitor to perform and oversee the work on-site.

*We are coordinating with numerous State, Federal and Local agencies, and although they do not have a supervisory role, we welcome their comments and suggestions.*

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- 1.17. Will there be a Declaration of Restrictions placed on the BoRit Site following completion of the "Removal Action" by the EPA? I should leave this up to the attorneys; However, the purpose of the Declaration of Restrictions is to assure that the Area in Question, hereinafter referred to as the "BoRit Asbestos Area", including its air space and subsurface, will be retained in perpetuity in its cleanup condition and to prevent any use of the BoRit Asbestos Area that will impair or interfere with its intended functions and values. The Declaration will confine the use of the BoRit Asbestos Area to such activities that are consistent with the purpose of this Declaration and identify a list of restrictions that are prohibited in, on, over, or under the site in question.

*It is too early in the project for EPA to specify institutional controls. We will be consulting with the property owners, involved government entities, and other interested parties on this issue as the project proceeds.*

- 1.18. Should we be "comforted" by the fact that there has yet to be an alarm and how will we be notified if there is one?

*Based on the sampling results (more than 300 samples collected during the assessment phase, including activity-based sampling), residents in the vicinity of the Site are not being exposed to asbestos fibers from the Site at levels that pose an unacceptable or significant health risk. In addition, during the preliminary work, even personal air monitors have not detected levels that pose an unacceptable or significant health risk.*

*As far as notifications in case of a sudden release of asbestos into the air, we have an emergency procedure in place. The procedure calls for notification to the municipalities.*

- 1.19. Is it too late to incorporate alternatives for the stream bank stabilization?

*The current construction season will be devoted to the bank of the Wissahickon Creek adjacent to the park. We are currently working with the USACE to develop plans for Rose Valley Creek, the Wissahickon downstream of Rose Valley, and Tannery Run. We will be working with the CAG throughout this project and will try to incorporate workable alternatives into our designs wherever possible.*

- 1.20. How many remediations of asbestos piles, or similarly significant asbestos contamination, has [USEPA On-Scene Coordinator] Eduardo Rovira been involved in prior to the BoRit removal action?

*As mentioned in the latest Q&A, the only remediation of a very large asbestos pile conducted in EPA Region III was done years ago. The job of the On-Scene Coordinator ("OSC") is to coordinate site activities and coordinate efforts with other Federal, State, and Local agencies. Although the OSC makes the final decisions, he/she relies on the expertise of the Site team when making any determination. At the BoRit Site, the team includes representatives from EPA's Environmental Response Team (ERT) and their contractor, ATSDR, the United States Army Corps of Engineers, PADEP, PADOH,*

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*Montgomery County Health Department and our technical support (START) and cleanup (ERRS) contractors.*

- 1.21. How many remediations of asbestos piles, or similarly significant asbestos contamination, has [the contractor] WRS Compass been accredited to prior to this BoRit removal action?

*As mentioned in the latest Q&A, EPA's cleanup contractor has over 25 years experience in performing consulting and contracting services relating to non-friable and friable asbestos-containing materials. This experience includes preparation of building, facility and roof asbestos surveys, asbestos abatement, asbestos abatement project monitoring and transportation and disposal of asbestos-containing materials on hundreds of projects in various states throughout the United States.*

- 1.22. The EPA Action Memo states that the removal action shall consist of:

- Reducing the presence of heavy vegetation or other obstacles (Do they now know the total extent of reduction needed for the 38 acres yet?)
- Covering using various techniques including geotextile, soil, and or vegetation to ensure adequate coverage of exposed areas and to prevent migration of the asbestos (Do they now have specifics?)

*We are in the process of clearing the vegetation necessary to conduct the creek bank stabilization work. As mentioned, we need to cut most of the trees on the banks because they might fall later and expose ACM. Also, they may present obstacles to anchoring the stabilization materials and operating equipment along the banks.*

*We most likely will use a combination of materials mentioned at the meeting (rip rap, geo cells, bio logs, reinforced turf mats) to stabilize the stream banks. We will use hardened structures at the toe and soft (green) structures at higher elevations.*

- 1.23. WRS Project Description (from HASP) states activities will include the following:

- Clear and chip vegetation (trees) (Magnitude?)
  - *We will only clear the necessary areas to be able to do the stream bank work. We will chip all the vegetation necessary to clear.*
- Access road construction (Are they done?)
  - *We completed some of the access roads (the ones needed at the park property). Other access roads at the reservoir and pile property might be constructed in the future.*
- Perform dust control throughout ACM disturbing activities (Just water or wetting agents too? Do they have a time frame for the activities most likely to disturb?)
  - *Dust suppression (using water) will continue throughout the duration of the project.*
- Covering mostly non-friable asbestos with either soil or other form of cover. (Specifics?)



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- *We have a stockpile of off-site clean soil and we also have the wood chips from the vegetation we are chipping. The material is being used when exposed areas are identified during ongoing activities. EPA may utilize other forms of cover (e.g., seeded compost) before work at the site if complete.*
- Riprap and gabion basket installation, Filtrex sock installation (Details?)
  - *As mentioned during the meeting, the design will consist of a combination of rip rap, geo cells (filled with cement, stone or soil), bio logs, reinforced turf mats. We did not consider the use of Gabion baskets because proper installation would have required cutting into the bank.*

- 1.24. Is EPA following the guidance provided in EPA-540-F-99-006 of April 2000 titled “Improving Site Assessment: Integrating Removal and Remedial Site Evaluations” (see here: <http://www.epa.gov/superfund/sites/npl/hrsres/fact/r&reval.pdf>) ?” If they are, would they give us an update, and if not, why not?

*The guidance mentioned addresses Removal and Remedial site assessments and coordination between the programs to avoid needless duplication. The BoRit Site is not in an assessment phase, but in a Removal Action phase. If the Site were to be listed on the NPL, the Remedial Program will likely conduct their own Remedial Investigation/Feasibility Study (RI/FS) pursuant to their guidance.*

- 1.25. Note: The action memo clearly states that “the actions proposed will contribute to any future remedial actions which may be necessary at this site,” (the Band-Aid is a cure issue).

*It is typically the goal of a Removal Action to contribute to any future remedial actions at a site, even if it is uncertain whether there will, in fact, ever be any remedial action. This often means that the Removal Action will be designed to avoid limiting the options for any future actions. In the case of the BoRit Asbestos Site, it is unlikely that any future actions would be inconsistent with the cover and stabilization approach of the Removal Action. Therefore, we expect that our current actions would not hinder any potential future action.*

## 2. Questions/Comments on “ATSDR – PADOH Health Reports” presented by Lora Werner.

No additional questions or comments were received on this agenda item. However, the following questions from Dr. Michelle Naps and responses from Lora Werner of ATSDR that took place on August 11<sup>th</sup> have been included as they are relevant to the health and safety dialogue.

- 2.1. **Question from Naps:** Are there certain animal models where the ATSDR has developed a risk analysis rationale regarding the types of fibers and dose of exposure needed to induce disease? If so, are there a few important original or summary references that you could share with us? In particular, I am curious as to whether there have been relevant animal models for mesothelioma and asbestosis.

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**Response from Werner:** I don't believe ATSDR has found any specific animal models sufficient for evaluating asbestos exposures and human health effects in the manner you reference above. ATSDR has not derived any non-cancer Minimal Risk Levels (MRLs) for inhalation exposures to asbestos for any duration. As we state in our Toxicological Profile for Asbestos (our weight of evidence review of available literature relevant for health effects for this chemical) on p. 22:

"Results from epidemiological studies of cohorts of workers chronically exposed to airborne asbestos fiber concentrations ranging from about 5 to 20 f/mL provide convincing evidence of the development of asbestos-induced lung fibrosis, but a chronic MRL was not derived due to the large degree of uncertainty in extrapolating from the available data to levels of exposure that may be several orders of magnitude lower than current U.S. occupational exposure limits (0.1 f/mL). Data regarding the adverse health effects associated with acute- or intermediate-duration exposure to asbestos are lacking or are too limited to support the derivation of an MRL."

I know this Toxicological Profile is a large and dense document, but I really do recommend it for an overview of what we see as the best available public health studies related to this chemical. Note this document is dated 2001, so it incorporates research available up to about that timeframe. You will see that there are numerous animal studies that have been conducted, including rodents and primates, for both non-cancer and cancer outcomes. For example:

"Fibrosis has been produced in animals by inhalation or by intratracheal exposure to chrysotile (Chang et al. 1988; Davis et al. 1980a, 1980b; Donaldson et al. 1988a; Green et al. 1986; Hesterberg et al. 1995, 1996, 1997; Mast et al. 1994, 1995; McGavran et al. 1989; Wagner et al. 1980a), amosite (Davis et al. 1986a; Reeves et al. 1971, 1974; Webster et al. 1993), anthophyllite (Wagner et al. 1974), crocidolite (Reeves et al. 1971, 1974; Wagner et al. 1974), and tremolite (Davis et al. 1985; Green et al. 1986; Sahu et al. 1975). There are some data from animal studies to suggest that crocidolite causes more severe inflammatory disease than chrysotile and is retained longer within the lungs (Berube et al. 1996; McConnell et al. 1994). As shown in Table 3-2 and Figure 3-2, fibrosis has been noted in rodents after exposure to 132 f/mL for 5 hours (McGavran et al. 1989), exposure to 330 f/mL for 7 hours/day, 5 days/week for 15 weeks (Donaldson et al. 1988a), and chronic exposure to 54–2,060 f/mL (Davis et al. 1980a, 1980b, 1985, 1986a; Reeves et al. 1974; Wagner et al. 1974, 1980a). In animals, histological signs of tissue injury can be detected at the site of deposited fibers within a few days, although in humans, measurable abnormalities of lung function do not usually appear for a number of years (Dement et al. 1983; Hughes et al. 1987; Kagan 1988; Schwartz et al. 1993). (p.45, chapter 3, Health Effects).

Animal studies also indicate that inhalation exposure to asbestos produces mesotheliomas. Mesotheliomas have been observed in rats exposed to chrysotile, amosite, anthophyllite, crocidolite, or tremolite at concentrations ranging from 350 to 1,600 f/mL for 1–2 years (Davis and Jones 1988; Davis et al. 1985; Wagner et al. 1974, 1980a) and in baboons exposed to either 1,110–1,220 f/mL for 4 years (Goldstein and

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Coetzee 1990) or 1,100–1,200 f/mL for up to 898 days (Webster et al. 1993). Incidences of mesothelioma ranged from 0.7 % to 42% in these studies. (p.55, chapter 3, Health Effects).”

The whole document is available online at the following link, including the full citations for the references I excerpted here:

<http://www.atsdr.cdc.gov/toxprofiles/tp61.html#bookmark05>

- 2.2. ***Question from Naps:*** At a previous CAG meeting, many months ago, I was discussing the EPA air samples with government toxicologists and learned that the risk calculations are based (at least in part) on historical data from the textile industry with regard to disease risk in the workers. It was also conveyed to me that the percentages of short vs. long fibers and type of asbestos were analogous at the BoRit area site vs. the textile industry. Now, as I write this e-mail, I realize that I know absolutely nothing about asbestos use in the textile industry! Was asbestos used in clothing? Again, I would be interested in learning more about the textile industry data and its extrapolation for health risk analysis in other settings.

***Response from Werner:*** My understanding is that the size, length, and mineralogy of the asbestos fiber exposures varied across and within the different industry sectors. I am not exactly clear on your question or the conversation you had prior on this topic. Perhaps we could talk later and I could get a better understanding of your question, or I could get you back in touch with the person you had this conversation with? Regarding asbestos in the textile industry generally, it appears that it was possible to weave or spray asbestos onto fabric to make the final product flame-retardant and heat-resistant. Thus asbestos textile materials were manufactured for many purposes, such as for electrical insulation, welding blankets and curtains, packing components, roofing materials, and other heat- and fire-resistant fabrics.

- 2.3. ***Question from Naps:*** Lastly, the CDC is famous for its detective work to trace the connections between harmful exposure sources and the humans who suffered exposure. Ultimately, the most difficult epidemiology challenge of the BoRit site involves the lengthy lead time between asbestos exposure and related disease. We know that this will be a weakness of any epidemiology study. To some extent, this can be ameliorated by selecting the geographic radius as astutely as possible-- and selecting the most appropriate comparison population. Yet, this cannot be perceived as a substitute for actually tracing the specific individuals who have lived and/or worked for lengthy duration in extremely close proximity to the BoRit area site. In order to evaluate the degree to which this endeavor is warranted, does your agency have a metric that can be used to measure the transience of a population in a community that lives and/or works in a community over a defined period of time. If so, was such a metric used in Libby, Montana-- and could such a metric be applied to our community around the BoRit area site?

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**Response from Werner:** I asked Dr. Kapil this question when we spoke this afternoon. He was not aware of any single specific metric that ATSDR/CDC uses to measure the transience of a population over time, either at the Libby site or at other sites we have worked on. He is familiar with a variety of possible techniques, including looking at demographic data such as duration of residency, percentage of existing home sales over time, etc.

### **3. Questions/Comments on “*An Environmental Justice Presentation*”**

I would like to request that a committee be formed (if and when) the environmental justice speaker comes out to speak with the CAG. I would like the committee to have the mission to support and help navigate the path for West Ambler's community. Whatever the advice is from the speaker and the section of the EPA the committee could reinforce it, be it grant writing, PR or whatever is suggested by the speaker. I would like the committee to meet separately with the advisor of the environmental justice, along with the President, Vice President and so forth of the West Ambler Civic Association. This would allow the community to follow through with the support as easily as possible till the WACA can separate and function without the CAG.

I hope that the [environmental] justice expert can help us with applying for NPL status based on community need.

*The consideration of a site for the addition to the NPL is based entirely on the Hazard Ranking Score (HRS) package. The HRS package for the BoRit Site was submitted to EPA Headquarters in March, 2008. Selection of sites for proposed inclusion on the NPL is an internal and deliberative process by EPA. If EPA chooses to propose that a site is added to the NPL, EPA will publish the proposal in the Federal Register and the public will be invited to comment on the proposal.*

A letter on behalf of the West Ambler Civic Association that may have some effect on getting [BoRit] on the NPL list would be great. [The] only concern is that that [our] goal is to have first a recreation building within our community; and our second long-term goal is have a Boys & Girls Club in West Ambler that will be accessible to the children of the Ambler Borough, Whitpain Township, Upper Dublin and Lower Gwynedd; [so] that all children will participate no matter what township etc. they come from.

Reggie Harris and Alice Write [will be invited] to our next CAG [meeting] in September so everyone can get a better understanding of the situation.

### **4. Questions/Comments on “*Third-party oversight of removal actions.*”**

The most important thing to keep in mind is who is taking the lead on this project. We are not dealing with a developer or environmental polluter who may be more interested in the “bottom line” than the safety of the community; we are dealing with the federal agency whose sole purpose is to protect the environment and the safety of the community. Ironically, we are talking about hiring additional consultants to oversee the activities of the

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agency that oversees the work of all contractors and consultants that we could possibly hire. I believe that all of the expertise necessary for this project is already available at EPA. I also believe that the experts assigned to this project will consult with other agencies and consultants when needed, as was evidenced by their consultation with the Army Corps of Engineers on the bank stabilization issue. We must keep in mind that any consultants that are hired are paid for with tax dollars. My belief is that it is more productive to spend money on meditating the issue than it is on trying to look for things that the EPA may be doing wrong. The CAG was created with the appropriate mix of interests and expertise to achieve maximum results. If the group works toward a mutual goal and keeps the wellbeing of the community in mind, much more will be achieved through a cooperative effort than would be achieved by hiring additional consultants.

Unfortunately, throughout societies, there is an almost inherent distrust in big government and their agencies. Some CAG members have been very vocal about their lack of confidence in the operation thus far. With that in mind, I suggested, in a previous e-mail, the hiring of a paid, independent, consultant to act as a liaison between the CAG and EPA. One with whom the CAG members could be comfortable and confident.

The suggestion is an effort to get the entire operation (in the field and at meetings) to run smoother and be more productive. It is not because I doubt the expertise of the agencies engaged in this task. I have every confidence that the personnel involved are highly qualified to do the extremely technical job in which they are engaged. What they don't have is the confidence of the CAG as a whole. If we had a paid, independent, technically qualified, subcontractor with whom the CAG was comfortable, giving us updated information on a regular basis, I think the whole process, from field operations to CAG meetings, would be ameliorated. They would be speaking the same language, and the subcontractor's communication with the agencies in the field would be meaningful and productive. Information offered to the CAG from such a source should lead to meetings which are not be hindered by seemingly unending questions from individuals who are, quite frankly, not qualified to understand the technical aspects and nuances of the operation, myself included. While we already have significant expertise on the CAG, I don't think it would be fair to ask them to devote the additional time necessary to act as a subcontractor without compensation.

### **5. Questions/Comments on “*Current & future requests for from the EPA TASC Program.*”**

Michael Lythcott [has] said that Doug [Streaker] and Michelle [Benchouk] are our (the CAG's) consultants and we should use them where ever we need their help. I think a notification email to the other CAG members regarding how we're using Doug is all that is needed. Doug needs to get his OSHA certification before he goes on site.

Will [Doug Streaker] who represented Biohabitats be reviewing the EPA's stream bank stabilization plan in depth and issuing a report?

Will a dialogue ensue between [Biohabitats] with results [available for] the CAG's review? (He [Streaker] was concerned that too much cement was being used and that the bank would jut out at another location.)

## *Questions & Comments From August Public Meeting*

How can we best utilize the [Michele Becnchouk's] expertise? Is she capable of providing onsite checks? She did suggest to that [we] conduct in-service education programs for local children about the dangers of walking in the creek, and she would help with the presentation material.

If [Michele Becnchouk's] isn't capable of onsite checking, I suggest we request an expert in asbestos to check the area for proper health and safety precautions, review plans, and check the work to date.

I welcome the CAG's suggestions as to how we can utilize the experts we have on board.

How many stream bank stabilization projects involving the containment of asbestos or similar toxic substances has Doug Streaker been involved in prior to his appointment to assist our CAG through the TASC program? How and why was Mr. Streaker appointed to assist the CAG?

How many asbestos waste containment projects has Michele Benchouk been involved with prior to her appointment to assist our CAG through the TASC program? How and why was Ms. Benchouk appointed to assist the CAG?

### **6. Questions/Comments on *"Further condemnation of EPA's removal actions"***

I strongly oppose such an action. I believe that this is unwarranted, unfair, and counterproductive. If anything, the EPA representatives should receive praise and an apology, rather than a condemnation. EPA representatives have acknowledged their shortcomings, but more importantly they have taken immediate steps to rectify them. We cannot lose sight of the positive accomplishments and the progress that has been made in a relatively short time. Without the dedication and hard work of Eduardo, Jack, Larry, and others these accomplishments would not have been possible. The disrespect and accusations that these hardworking public servants receive is inexcusable. I for one feel that praise is more appropriate than some type of condemnation. I am also not naïve enough to think that there will not be glitches along the way. However, I firmly believe that if we focus on the positive aspects of the project, and work through the negative aspects, a lot more will be accomplished in a shorter period.

I agree with 100% of your comments [6.1] regarding the "condemnation" motion. I think that, given the parameters established for them by the EPA, Eduardo, Jack and Larry are working in good faith, and have shown that they are sincere in doing the best job they can. They have been open to CAG suggestions and, indeed, have made adjustments to accommodate some of them.

Recently, the CAG has expressed disappointment with the lack of communication it has seen from the EPA. A requested operational plan prior to the start of ANY work has not been forthcoming. The apology, and promise to do better in the communication effort, put forth by the EPA at the last CAG meeting was, in my mind, a very positive step, and I look

## *Questions & Comments From August Public Meeting*

forward their following through on future exchanges of information which the CAG truly needs in order to be effective. At the same time, it is important to remember that the CAG cannot micro-manage this process.

I agree with his [6.1] statements 100%.

Can a person be identified as the one responsible for either the early project initiation or the non notification of the community in early July? My sense is that the contractors (WRS, etc.) are in control of the timing of most of the actual site activities to date. For example: They approved their own HASP procedures (10/11 July) after they were already on site, likely prior to training, which is itself an OSHA violation. This is a highly regulated project for the contractors, so what is actually in place in writing between the contractors and the EPA to prevent future significant project activities prior to notification?

*A site safety meeting for all site personnel is held every work morning, and a planning and operations meeting with all site personnel is conducted at the end of every work day by the On-Scene Coordinator. The details for work that is to be accomplished on the following workday are laid out and delivered by the OSC to the WRS/Compass Project Manager for implementation.*

*WRscompass does not and cannot (by contract) initiate any new work without the express authorization of the OSC.*

*With regards to notification to the community throughout the Removal Project, EPA has already committed to improve our communications about site activities as evidenced by our weekly phone operations update, upcoming fact sheets, public meetings and availability sessions.*

### **7. Questions/Comments on “Next Steps & Action Items.”**

None received

### **ATTACHMENT (1)**



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*Questions & Comments From August Public Meeting*

Date: August 29, 2008

To: Fred Conner, CAG Co-Chair

From: Doug Streaker, P.E.  
Biohabitats, Inc.

**Re: Comments from August 6, 2008 CAG Meeting**

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**Design Concerns**

As I stated in the meeting, my major concern is that it appears based on the concepts presented that the EPA did not consider a more “natural channel” design approach that is currently being implemented in stream stabilization projects around the country and particularly in Pennsylvania. All five concepts presented utilize a “hardening” of the stream bank using rip rap and various geo cells. This traditional engineered approach has become out-dated because of several reasons; if not installed properly the structures become undermined and fail, they have the potential to negatively impact the stream channel and adjacent banks, deflecting the stream energy to another location in the stream, and they do not provide the functions and values of a natural stream bank such as improved habitat, aesthetics, and sustainable stability.

Because of the existing site conditions of the stream bank that was described during the meeting as being littered with asbestos containing material and asbestos contaminated soil, and the fact that no excavation should be performed during the stabilization to eliminate making the contaminant airborne, there may be limitations to a natural channel stabilization technique. This may very well require the EPA to utilize the “hardened” approach described in their presentation. Even if the presented bank stabilization techniques using rip rap and geo cell are determined to be necessary, I feel there are opportunities to develop a more comprehensive stream stabilization. The following are some general comments on possible way to do this.

- The “Green Environment” described in the presentation as grass could be enhanced by incorporating native shrubs and herbaceous vegetation that would improve the stability of the bank as well as enhance habitat and aesthetics.
- Instead of installing dumped rip rap at the toe of the stream bank, an imbricated rip rap wall or bank toe protection, built by placing large block shaped rocks in an interlocked pattern, could be installed that will reduce the possibility of undermining the bank protection.
- The hardening of the stream bank may potentially cause increased erosion on the opposite bank due to increased shear stress caused by the stream energy “bouncing” off the rip rap. To alleviate this, one option to consider would be to grade a low bench on the opposite bank or grade it back at a low slope. This would relieve in-stream shear stress and allow flows at a return interval lower than the 25-year storm to access a floodplain.



## *Questions & Comments From August Public Meeting*

- In place of using the Turf Reinforcement Matting on the upper stream bank, I suggest using stabilization matting that does not contain plastic webbing. The plastic webbing in matting is not typically used around stream channels because birds and small animals may become entangled in the netting.

### **Data Request**

In order to provide the CAG with meaningful feedback on EPA's stream bank restoration design, I would like to request any document that support the current design and any alternatives that were assessed. Any available data that was used to develop the stabilization would be helpful. Below is a list of some potentially helpful information:

- Geomorphic study of existing conditions
- Hydrology and Hydraulics Report
- Design Report
- HEC-RAS model
- Shear Stress Analysis
- Rock sizing analysis (rip rap and streambed material)
- Planting Plan (species, methods)

*As discussed above, EPA is sensitive to the desire for "green" solutions here, but we are also aware of community desires to avoid long-term maintenance/repairs that may be required by any remedy. EPA believes that hardened structures at the toe area and greener approaches further up represent an appropriate balance of these concerns.*

*Once all the documents are final, EPA will provide a copy to the CAG for their view.*

### **ATTACHMENT (2)**

#### **Additional Questions on the Proposed Non-Time-Critical Removal Action for BoRit Site (as outlined in the EPA Action Memo dated April 14, 2008)**

**by Michele Benchouk, Associate  
Booz Allen Hamilton**

#### **Clarification: The current action is a Time-Critical Removal Action.**

1. EPA's presentation at the Community Advisory Group (CAG) meeting was limited to stabilization of the east bank of the Wissahickon Creek where it passes by the BoRit properties. While this focus understandably corresponds to current activities on the site, additional information is needed with regard to other proposed removal action components outlined in Section VI of the Action Memo. Details that should be provided to the CAG for review and comment include, but are not limited to:
  - Specific design of the proposed soil cover for areas where asbestos is exposed at the soil surface (Removal Item 3). Discussion should specifically be provided as to how

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EPA will ensure that the cover is not comprised by erosion or burrowing animals. The expected rate of erosion during and subsequent to vegetation (if included in the proposed design) should be specified, along with expected maintenance requirements and frequency of the cover system. The typical depth of animal activities should be evaluated against the proposed cover thickness, and EPA should consider including a gravel or geotextile layer within the system if the proposed thickness is not sufficient to prevent animals and trespassers from inadvertently accessing asbestos-containing materials (ACM). Finally, EPA should discuss how extensively the areas must be cleared for the cover to be effective across the bulk of the Site.

*For now, we are covering accessible areas with clean soil and/or wood chips. We are currently looking for different alternatives for remote areas of the site. The Removal Action is not intended to provide a permanent cover on areas of asbestos located away from the stream bank but merely provide coverage to prevent to potential for exposed asbestos to become airborne.*

- Similar discussion on erosion rates, maintenance needs, and burrowing protection with regard to the uppermost portions of the stabilized stream banks (Removal Item 4).

*EPA will work with the US Fish & Wildlife Service to evaluate the potential effects of animals on any cover system and incorporate these effects into the design. Project engineers will recommend the extent of clearing required on-site.*

- Identification of those portions of the Site where a cover is needed to prevent exposure to asbestos at the soil surface (Removal Item 3). What criteria will EPA use to determine where soil cover is needed (e.g., percentage of asbestos present, visual evidence of ACM)? How will EPA identify areas of asbestos-contaminated soil if no obvious ACM is present? Section II.B.1.iii of the Action Memo notes that detectable levels of asbestos were identified even in areas where no visible ACM was present. What level of risk will such areas pose if they remain uncovered? Will additional sampling be conducted, and how extensive will such sampling be? What areas were proposed for soil cover in the Action Memo's cost estimate? As soon as possible, a map of the proposed soil cover areas should be provided to the CAG for review and comment.

*Visual evidence of ACM (gray-like soil, soil with white material mixed in) would be the most likely criterion to be applied. The health risk presented by areas that remain uncovered should be minimal if left undisturbed, as indicated by historical air sampling analyses. Based on past and recent air sampling results, no levels of concern were found either on-site or off-site, even during activity-based sampling. For now, no additional soil sampling will be conducted. No particular areas for soil cover were proposed. As mentioned above, the areas where soil cover will be required will likely be determined by visual inspection.*

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- Identification of ACM that cannot be “suitably” covered and must be removed from the Site as part of Removal Item 4. Will this determination be based on size, location, or other considerations? Will any ACM **not** associated with bank stabilization be considered for removal as part of Removal Item 3 (soil cover where asbestos is exposed at the soil surface)? How will this ACM be managed while on site (including initial removal, containment, and storage)? How and when will it be transported off-site (including travel routes)? How and where will the ACM ultimately be disposed?

*Determination will be based on size and location. Pieces to be removed will be handled as required by the asbestos regulations. If taken for off-site disposal, most likely, they will be transported in a lined roll-off container. The pieces of ACM likely to require off-site disposal are transite in a non-friable state. No special travel routes are intended. An appropriate disposal site will be identified by WRScompass.*

- The means by which EPA will ensure protection of human health and the environment at and downstream of the Site during and after bank stabilization activities. Disturbance of soil and ACM along the Wissahickon Creek, Rose Valley Creek, and Tannery Run (including movement of heavy equipment, rerouting/dewatering creek sections, and limited removal of ACM) has the potential to increase asbestos levels in the surface water and sediment, even if only temporarily. To ensure that such increases do not result in unacceptable, unmitigated risks to the community and wildlife, EPA should consider surface water and sediment sampling throughout bank stabilization efforts (as a component of Removal Item 4) and for a period thereafter (as a component of Removal Item 6).

*The primary concern regarding asbestos exposure is airborne asbestos fibers entering the body through inhalation, as opposed to dermal contact or ingestion. Therefore, the focus of our sampling during field activities is and will be air. There is little evidence that asbestos presents a health threat to aquatic life.*

*During the assessment of the site we sampled the water and sediments of the three bodies of water adjacent to the site. All the water samples came back non-detect for asbestos. Three of the sediment samples came back with 0.3 % asbestos, including one sample from upstream and one from way downstream of the site. Therefore, we cannot say that the site's runoff is the source.*

2. In Section II.A.1.ii of the Action Memo, EPA concludes that asbestos fibers on the banks of the reservoir are unlikely to become airborne because these areas “commonly have high moisture content due to fluctuation in the water level.” For this reason, and because there will be no public access to the banks of the reservoir (under currently anticipated future land uses), the proposed removal action does not include activity on the reservoir property. Has EPA evaluated the effects of weather on potential dispersion of asbestos from this area? Periods of dry weather and/or drought could conceivably result in increased levels of dust and airborne asbestos fibers. Alternatively, heavy rain and/or flooding may result in migration of ACM to other portions of the property via overland

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flow. After the rain water dissipates, ACM carried away from the reservoir banks would be deposited on the ground surface where it would presumably dry out and become a potential source of airborne asbestos.

*EPA has evaluated that scenario (inner banks of the reservoir) and concluded that the risk, if any, is minimal. That conclusion is based on the results from the assessment, which found no levels of concern either on-site or off-site, even during activity-based sampling. EPA does intend to cover the exposed material on the outer banks of the reservoir.*

3. Section III of the Action Memo indicates that Site fencing is often compromised, and that EPA has witnessed children and adolescents trespassing on the Site. Proposed Removal Item 1 in the Action Memo includes replacing, maintaining, and repairing existing fencing along Maple Street, as well as installing new fencing or another physical barrier along Wissahickon Creek. While these actions should serve to decrease unauthorized entry, they cannot completely ensure that trespassing will not occur. Given the sensitive nature of children and adolescents as risk assessment receptors, can EPA support the CAG in raising awareness of Site risks among this age group? Are child-friendly outreach resources available, such as could be presented at nearby schools?

*There are no measures that EPA would employ that will completely ensure that trespassing will not occur. Fence and signage will only prevent unintentional access to the site. Raising awareness is always good. We will look for any child-friendly outreach resources available.*

4. Section II.A.1.i of the BoRit Action Memo states that "for short periods of time in the 1980s and 1990s, portions of the pile area were used... for fire department training." As EPA is aware, depending on the types of exercises and fuels used, fire training areas can be notorious sources of volatile and semivolatile organic compound contamination. Has EPA evaluated this possibility at the BoRit site? Does EPA have specific information on the nature and duration of fire training activities conducted in this location? Where were the fire training exercises conducted, and has any sampling occurred in those locations? If the training program was limited (as the Action Memo implies), the potential for significant, residual organic compound concentrations may be similarly low. The Action Memo, having been prepared under Superfund's Removal Program, is understandably limited to asbestos, as "actual or threatened releases [of this contaminant] may present an imminent and substantial endangerment to public health, welfare, and/or the environment" (Action Memo, Section IV). However, it is important that EPA fully evaluate the potential for volatile and semivolatile organic contamination related to historic fire training activity as part of the ongoing Site Assessment Program and within the context of National Priorities List scoring for the site.

*During the assessment phase, we sampled for other parameters, including volatile and semi-volatile organic compounds (especially in the area used for fire training). After review of the sampling results and risk calculations, it was determined that the only contaminant of concern at the site is asbestos.*