Questions and Responses about Groundwater at the BoRit Superfund Site (February 1, 2012).

EPA has prepared the following responses to questions provided by the BoRit CAG. Additional information about the groundwater investigation can be found on EPA's website at http://www.epa.gov/reg3hwmd/npl/PAD981034887.htm. This website contains a link to the groundwater report referenced in the responses and to a fact sheet (July 2011).

1. Please provide maps depicting the outer extent of groundwater contamination plumes present beneath the BoRit Site.

    - Please refer to the Preliminary Phase 2 Groundwater Report for BoRit Asbestos Superfund Site at Ambler, PA dated February 25, 2011. As part of the Phase 2 field investigation, groundwater samples were collected from six bedrocks wells. Groundwater compounds exceeding screening levels were reported in a site map in Figure 3-2 and tables 3-4 through 3-8.

    - Asbestos was detected in a solitary groundwater sample at MW-04 during the phase 2 investigation at 0.51 MFL (million fibers per liter). This level is about 10 times less than the MCL (maximum contaminant level) of 7MFL.

    - Based on the Phase 2 Groundwater Report the data do not show a defined contamination plume beneath the BoRit Site, but generally isolated groundwater findings in one (MW-02) out of six groundwater monitoring wells. The chemicals detected in MW-02 included carbon tetrachloride and tetrachloroethene.

2. Please provide an explanation as to the mechanism for groundwater moving into the deeper aquifer horizon beneath the BoRit Site to cause contamination, as measured in the deep EPA soil boring between the reservoir and the pile.

    - Please refer to the Preliminary Phase 2 Groundwater Report for BoRit Asbestos Superfund Site at Ambler, PA dated February 25, 2011. Section 3.2.2 on page 3-2 states that generally, the shallow groundwater is found in the fractured upper bedrock, and discontinuous occurrences of groundwater are found in the overburden material near the Wissahickon Creek. Based on the horizontal gradient, shallow groundwater flows from north to south across the Park Parcel, discharging to Wissahickon Creek.

    - As indicated by the elevations of the potentiometric surface in PKPZ-02 (overburden piezometer) and MW-02 (bedrock well), the vertical hydraulic gradient is downward, therefore, flow would be expected to be from the overburden into the fracture upper bedrock. Similarly, groundwater found within the unconsolidated material of the asbestos pile is discontinuous and may be described as perched water.

3. Have you determined whether the zone of influence or cone of depression from the neighboring public water supply well in Ambler extend to the Borit Site? If not, are plans underway to define those cones of depressions?

- Please refer to the Preliminary Phase 2 Groundwater Report for BoRit Asbestos Superfund Site at Ambler, PA dated February 25, 2011. Figure 2-2 (potentiometric surface map) shows groundwater flows in a north to south direction or from Maple Street to the Wissahickon Creek. The direction of groundwater flow does not indicate that there is a zone of influence from a local water supply well.

4. Has EPA conducted testing of the closest Ambler water supply wells for the contaminants of concern? Is monitoring being considered for the supply wells in the future at a frequency greater than the standard sampling interval required by DEP?

- EPA has followed a standard systematic environmental characterization approach to evaluating the potential for groundwater contamination at this site. EPA's groundwater evaluation strategy established the depth to groundwater under the site, the direction of groundwater flow from the site, and whether any groundwater contamination plumes exist under the site. As part of the investigation EPA installed 6 monitoring wells as depicted in Figure 2-1 at the BoRit site and tested the groundwater for a comprehensive list of parameters (volatile organic compounds, semi-volatile organic compounds, PCBs, pesticides, metals, and asbestos). Asbestos was detected in a solitary groundwater sample at MW-04 at 0.51 MFL (million fibers per liter) which is significantly less than the regulatory safe drinking water standard or MCL (maximum contaminant level) of 7MFL. Therefore, EPA did not identify a groundwater contamination plume under this site that would require further groundwater characterization offsite. Additionally, please refer to the response to question 3 that describes the groundwater flow direction toward the Wissahickon Creek.
- For further information about the standard testing program for public water supply wells please contact PADEP's safe drinking water program or visit their website at http://www.drinkingwater.state.pa.us/dwrs/HTM/Welcome.html, or visit EPA's website at http://water.epa.gov/drink/contaminants/index.cfm.