

C-0838
September 21, 2016

Mr. Mark Baldi
Massachusetts DEP
8 New Bond Street
Worcester, MA 01501

**Re: Residential Well Sampling IRA
H. Foote Road, Charlton
RTN 2-19678**

Dear Mr. Baldi:

On behalf of both Southbridge Recycling & Disposal Park, Inc. (SRDP) and the Town of Southbridge (Town),¹ Tighe & Bond, Inc. has prepared this response to a verbal directive from the Massachusetts Department of Environmental Protection (MassDEP) to increase the frequency of IRA Plan residential well sampling for certain residences from quarterly to monthly. MassDEP has not formally modified the IRA in writing, or provided justification for the change in the IRA Plan, or the need for increased sampling. As discussed below, we do not believe that a change in the frequency of residential well sampling is appropriate, or provides any meaningful increase in the protection of human health or the environment. In response to the verbal directive, we are voluntarily proceeding with the collection of samples during the month of September 2016, and plan to collect the previously required 3rd quarter samples during October 2016. Further sampling beyond October is pending resolution of the information described herein and modification of the approved IRA Plan.

Since October 2015, the residences within the Site area have generally been sampled a minimum of four times, and many of the residences have been sampled far more frequently, up to 8-10 times. The analytical data have been generally consistent, with very few spikes or significant increases or decreases in concentrations. Although the July - August 2016 sampling yielded increased concentrations in several residential locations, the data suggests that the current seasonal conditions (low water table conditions consistent with the current drought²) contributed to these conditions. These increases included one residence with a first-time exceedance of the GW-1 standard for trichloroethene, and three residences with first-time exceedances of the GW-1 standard for 1,4-dioxane. However, each of these residences had previously had low-level detections or J-qualified estimated results of the same Site COCs. None of these residences represent examples of new detections where previous sampling indicated no detections. None of these residences are located outside the Disposal Site Boundary as provided in the August 8, 2016 IRA Status Summary report. Finally, each of the July - August exceedances was generally consistent in magnitude with detections at other residences within the project area; none of these detections represent a "high" concentration in the dataset for the area.

The quarterly groundwater sampling was proposed and established under the IRA to collect analytical data throughout different seasonal conditions. The July - August 2016 samples

¹ SRDP and the Town are identified as "Non-Specified Potentially Responsible Party (PRP)" for Immediate Response Action (IRA) activities associated with the response to detections of volatile organic compounds (VOCs) or 1,4-dioxane detected in residential wells located on H. Foote Road in Charlton (Release Tracking Number [RTN] 2-19678).

² Much of central Massachusetts, including the Towns of Southbridge and Charlton, are classified as "Severe Drought." <http://droughtmonitor.unl.edu/Home/StateDroughtMonitor.aspx?MA>



properly represent data collected during low water-table summer conditions, and the project team has responded with appropriate measures (re-sampling, continuation of bottled water, and/or evaluation of the need for point-of-entry (POET) systems) accordingly. For residences where Critical Exposure Pathways (CEPs) have been identified, bottled water has been and continues to be provided. In addition, SRDP and the Town have installed or are in the process of installing POET systems in residences where determined to be necessary by the requirements of the Massachusetts Contingency Plan (MCP) or IRA. Where these POET systems have been installed, analytical results indicate that these Active Exposure Pathway Mitigation Measures are effectively treating the well water and mitigating the CEP. Of the remaining residences within the project area, the IRA already mandates proactive monthly sampling at locations where multiple J-qualified estimated results have been identified, and bottled water is not being provided.

After nearly a year of sampling results, MassDEP's verbal directive to triple the sampling frequency will not provide any meaningful increase in protection to the residents. The MCP GW-1 standards are based on long-term (70-year) exposure scenarios "to address the potential health effects associated with the use of the groundwater, including ingestion of the water, inhalation of contaminants volatilizing from the water during showering, and dermal absorption of contaminants while in contact with the water," not acute exposures during a single one-month period. The collection and analysis of quarterly samples for residences within the project area is entirely consistent with the requirements of the MCP, and protective of residents using this water, especially considering that the majority of these residents are also receiving bottled water for drinking, removing this exposure component from the cumulative exposure risk. Given the slow rate of movement of constituents in groundwater, quarterly sampling is an appropriate sampling frequency to track trends in the data, and sufficient to respond to potential changes without compromising the health and safety of the affected residents.

Accordingly, in response to the verbal directive, SRDP and the Town do not believe any change in sampling frequency is warranted, and request that the project continue to follow the current sampling requirements in the approved IRA Plan.

Very truly yours,

TIGHE & BOND, INC.



Jeffrey L. Arps, LSP
Director, Remediation & Field Services

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