Coakley Landfill Update

US Environmental Protection Agency (EPA)

NH Department of Environmental Services (NHDES)

April 21, 2017

1. Status of water supply sampling

NHDES completed the sampling of private water supply wells around the Coakley Landfill (Landfill) in February 2017. A total of seventy nine (79) private wells were sampled and results reported to property owners. In January 2017 the Coakley Landfill Group (CLG) also sampled nineteen private drinking water wells in the area north of the Landfill that had been previously tested by NHDES. The purpose of these sampling efforts was to insure the continued safety of area groundwater for drinking water purposes. In no case has there been a result that exceeded the 70 parts-per-trillion (ppt) Public Health Advisory or equivalent NHDES ambient groundwater quality criteria for polyfluoroalkyl substances (PFASs, otherwise known as PFCs). Private well sampling/testing will be repeated on a subset of 19 of the 79 wells previously sampled and will be performed by the CLG in August 2017 and February and August 2018.

2. Status of additional monitoring wells

On March 24, 2017 EPA and NHDES met with the CLG and its consultant and discussed the agencies' comments, as put forth in a March 7, 2017 EPA letter to the CLG, on the CLG's February 2017 Work Plan to install four new monitoring wells (two overburden and bedrock well couplets) within the northern area of the Landfill Groundwater Management Zone (GMZ). On April 6, 2017, the CLG agreed to perform the modifications, as requested by the agencies, including the geophysical work in a proposed phased approach. The proposed phased approach, as further detailed in Item 4 below, was reviewed by the agencies and approved with some clarifications and corrections on April 12, 2017. The CLG is currently working on the first two phases of the approach. The pending installation (summer 2017), technical evaluation, and sampling of the four new wells will provide more localized groundwater and bedrock data at the Landfill compliance boundary. This is the area of primary concern given the understanding that the bulk of impacted groundwater from the site moves in a northerly direction along the Berrys Brook drainage feature. In addition, NHDES and EPA are working closely to review the monitoring network on all sides of the GMZ to ensure compliance. More wells will be installed if determined to be necessary.

3. Surface Water Quality

The February 2017 Community Update provided a summary of PFASs and 1,4-dioxane levels in surface water samples collected by NHDES in December 2016. The February 2017 Update also presented the EPA-developed site-specific screening levels (SLs) for recreational receptors that could be exposed to certain PFASs in surface water impacted by the Landfill. The March 2017 Update described the process and status of the possible development of surface water quality criteria for certain PFASs by EPA and/or NHDES. EPA will use the information provided by the New Hampshire Fish and Game Department and the additional Site data to be collected to determine whether further risk evaluations are needed and whether it is necessary to develop Site-specific fish consumption screening levels.

EPA, in consultation with NHDES, will continue to direct the work of the CLG to monitor the levels of PFASs in surface waters at and downgradient of the Site to determine if additional corrective actions are required to protect human health and the environment.

4. Coakley Landfill Group planned activities

The following tasks are currently on-going or planned:

a. On March 7, 2017, the agencies provided comments on a CLG-prepared February 2017 Work Plan to install two new well couplets near the northwest GMZ boundary. Subsequent meetings and correspondence resulted in an agreement to sequentially phase the installation of these well couplets as follows:

   i. Installation of water level data loggers in six existing site monitoring wells (overburden and bedrock) and, pending permission from the property owner, an existing bedrock well located within the proposed 10-lot subdivision off of Breakfast Hill Road. Data gathered from this effort will identify potential overburden and bedrock groundwater influences resulting from the pumping of area residential and irrigation wells.

   ii. Perform borehole geophysics (e.g., collect detailed information on bedrock and groundwater characteristics using sophisticated instruments that are lowered down the open rock borehole) and specific fracture zone sampling on an existing bedrock well located within the proposed 10-lot subdivision off of Breakfast Hill Road, pending access agreement. The purpose of this phase of work will be to learn more about bedrock composition, fracture characteristics and hydraulically active fracture zones.

   iii. Based on the information gathered in the foregoing studies, the locations and depths of the proposed GMZ compliance wells will be refined and finalized prior to installation.

b. On April 20, 2017, the agencies provided comments to the CLG on a sampling and analysis plan and quality assurance project plan submitted to the agencies in advance of the scheduled spring 2017 sampling event. Sampling and analysis of site monitoring wells, surface waters, leachate seep, and sediments are components of this sampling plan. Sampling is scheduled to begin mid-May 2017.

5. NHDES/EPA plan moving forward

The agencies, with the assistance of their technical consultants, are continuing to review private well sampling data, private well and site monitoring well construction details, surface water and groundwater interactions and site and regional hydrogeological information to evaluate the need for further investigations related to the off-site migration of site contaminants.

EPA and NHDES plan to continue providing community email updates on a regular as-needed basis.

For further information, please contact:

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