Coakley Landfill Update
US Environmental Protection Agency (EPA)
NH Department of Environmental Services (NHDES)
September 26, 2017

1. Status of Private Water Supply Sampling & Fall 2017 Site Monitoring

The Coakley Landfill Group (CLG) has been directed to sample 22 private wells on a biannual basis north and northwest of the Coakley Landfill (site). The Fall 2017 sampling event is currently underway. The agencies expect to receive validated results by the first week of November. A final report is expected by mid-January 2018.

2. Signage along Berrys Brook

Due to PFAS concentrations in surface water exceeding the most conservative site-specific screening levels in areas where there is public access and possible contact with surface waters (due to flooding of the Greenway trail), the agencies requested that the CLG install signage along the corridor (from the area adjacent to the landfill to Breakfast Hill Road). On August 10th, the CLG installed four signs along the corridor that read as follows:

> ***PLEASE TAKE NOTICE***
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> ***Contaminants associated with the Coakley Landfill Superfund Site have been detected in surface waters in this area. Further investigation and evaluation is ongoing. Please avoid contact with the surface water along the trail.***
>
> *For further information, please call:*
> *US EPA New England Call Center (888) 372-7341*
> *Peter Britz, City of Portsmouth*
> *(603)610-7215 or email: plbritz@ch.cityofportsmouth.com*

3. Fish Consumption

a) Development of site-specific fish consumption screening levels: NHDES has been engaged with EPA since early May on this issue. NH Fish & Game (NHFG) recently responded to a number of relevant questions developed by EPA about the existence of fisheries near the site. NHDES has provided these responses to EPA. Based on this information, EPA is finalizing fish consumption screening levels.

b) Fish tissue sampling: On July 11, 2017, EPA requested that the CLG conduct fish tissue sampling for PFASs within active fishing areas of Berrys Brook downstream of the site, including a base-line fish tissue sample collected directly from the hatchery where the stocked trout are raised. The CLG has requested to review a fish tissue sampling protocol to be provided by EPA prior to committing to perform this task. EPA has provided the CLG some general guidelines on performing fish tissue sampling and a related quality assurance project plan developed for another New England site conduction fish tissue sampling. The agencies will request that the CLG provide a sampling protocol to be reviewed.

4. Status of the Installation of Additional Bedrock Monitoring Wells

The CLG is proceeding with a phased approach for the installation of two new well couplets in the north/northwest GMZ area. Phase I (collecting time-lapsed water level data from six existing monitoring wells in the NW GMZ) and a portion of Phase II (collecting borehole geophysical data from a bedrock well located within the 10-lot subdivision east of Berrys

Brook near Breakfast Hill Road) were completed in late May and presented in a June 29, 2017 report to the agencies. Agency comments on the report and subsequent completion of Phase II activities (zoned groundwater sampling within the open borehole) are pending. Phase III will involve the installation of the two well couplets (anticipated late fall 2017), with locations and depths refined by the preceding phased work.

5. Other Site-Related Investigations

a) Eastern GMZ compliance boundary concerns: Due to a discrepancy in groundwater elevations versus established groundwater flow contours east of the landfill (near well FPC-9), the agencies have requested that the CLG conduct an inventory of historical monitoring and drinking water wells east of Lafayette Road to determine if a sufficient network of wells exists to resolve the hydraulic discrepancy and sample representative intervals for PFAS and site contaminants of concern. Upon gaining access to private properties, the CLG confirmed the existence of a number of wells that were identified via historic site plans. The CLG is now researching well construction details to assess which wells are suitable for hydraulic and analytical testing prior to well development and sampling.

b) Site-Wide Deep Bedrock Investigation: Previous investigations at the Site have included the overburden and shallow bedrock aquifers and focused primarily on volatile organic compounds that biodegrade over time. New contaminants recently identified in Site groundwater (PFAS and 1,4-dioxane) are highly mobile, recalcitrant and have very low cleanup criteria. The NHDES AGQS for PFOA/PFOS is 70 ppt and NHDES anticipates that it will propose rulemaking in the next few months to reduce the 1,4-dioxane AGQS to 320 ppt.

   Currently there is a limited deep bedrock monitoring well network (defined as greater than 50 ft into competent bedrock) at the Site. There are no site-specific measurements of the fracture network or groundwater quality in deep bedrock. Given that many of the homes and businesses in the vicinity of the Site rely on deep bedrock wells for potable water, deep bedrock fractures represent a potential contaminant migration pathway.

   Because of increased use of the deep bedrock groundwater resource in the area of the Site, the lack of any direct measurements (fracture patterns, groundwater flow conditions, and groundwater quality) from the deep bedrock aquifer at the Site, and the discovery of new contaminants that have fate and transport characteristics that are different from other contaminants, EPA and NHDES have determined that a thorough investigation of the deep bedrock aquifer is needed. EPA will formally request the CLG to perform this investigation, which is expected to last approximately two years.

6. Next Steps

a) EPA anticipates issuing comments to the CLG concerning the packer sampling of the Chinburg well by the end of September 2017.
b) A public meeting will be scheduled for late October in Greenland. Please stay tuned for more details.

For further information, please contact:

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