



March 24, 2023

Ms. Joy Dubin Grossman
Assistant Town Manager
Town of Hinesburg
10632 VT Route 116
Hinesburg, VT 05461
jdubingrossman@hinesburg.org

Re: Hinesburg Landfill 2022 Reports – Review and Opinion
LAG project #21043

Dear Ms. Grossman,

Lincoln Applied Geology (LAG) has reviewed the Spring and Fall 2022 monitoring reports prepared by Stone Environmental for the closed Hinesburg Landfill. We agree with Stone Environmental's conservative and stepwise approach to PFAS and volatile organic compound (VOC) sampling and treatment in landfill monitoring wells and nearby drinking water bedrock wells. Our justifications for this are summarized below.

The following three drinking water wells have Point of Entry Treatment (POET) systems installed due to known contaminant issues:

- 907 Beecher Hill Road (the Hinesburg Garage)
- 56 Forests Edge Road/685 Beecher Hill Road (shared shallow dug well)
- 152 Forests Edge Road

Seven other wells (in addition to the three above) surrounding the landfill in all directions were sampled previously for PFAS and VOCs by the State of Vermont in 2021. No PFAS or VOCs were detected in any of these seven wells. Stone Environmental determined that groundwater migration from the landfill is toward the southeast, and that groundwater in the bedrock aquifer may have a south or southwestern component.

Stone has made recommendations for additional sampling of wells at four properties that directly adjoin the landfill property, and are either downgradient or crossgradient. Three of these were sampled previously in 2021. LAG again notes that no PFAS or VOCs were detected in these wells previously, but that the wells are being sampled a second time. A fourth well that has not been sampled previously is added to Stone Environmental's list of recommendations. It is southeast of the landfill and also adjoins it. Included in Table 9 of Stone Environmental's Fall 2022 report is a list of all private drinking water wells within a quarter mile of the landfill, their direction from the landfill, and whether they adjoin the landfill. The table includes information about past sampling for these wells. Stone recommends sampling the following in their Fall 2022 report:

-182 Forests Edge Road. This well was sampled in July 2021 with no PFAS or VOCs detected. Stone has recommended resampling this well. This property adjoins the landfill and is located to the west.

-794 Beecher Hill Road. This well was sampled in July 2021 with no PFAS or VOCs detected. Stone has recommended resampling this well. It is south of the landfill and adjoins it.
-413 North Road. This well was sampled in September 2021. No PFAS or VOCs were detected. Stone has recommended resampling this well. It is south of the landfill and adjoins it.
-490 North Road. This well has not been previously sampled so Stone is recommending sampling it for the first time. It is southeast of the landfill and adjoins it.

Stone Environmental is proposing a conservative and prudent stepwise approach to future sampling, which prioritizes the sampling or resampling of wells based on distance from the landfill and whether they are located hydrologically downgradient of the landfill. They have proposed that any contaminant detections greater than the State of Vermont's Preventative Action Level (PAL) will trigger the sampling of additional well locations. The PAL of 2 parts per trillion for PFAS is much lower than the Vermont Groundwater Enforcement Standard (VGES) of 20 parts per trillion, and this is therefore a very conservative approach. If there have been no detections above the PAL for two consecutive rounds, then sampling will cease.

LAG recommends implementing Stone Environmental's recommendations and agrees with their approach. However, for ease of public understanding of the reports, LAG recommends adding more description to Section 4.4.1, "Drinking Water Supplies," to better describe why certain wells are chosen for sampling, and why others are not. A column could be added to Table 9 with justification for each nearby well (e.g. "this well is upgradient of the landfill, and therefore sampling is not necessary" or "this well is adjacent to a known well with contamination, and therefore is being sampled"). Additionally, all wells referenced in Table 9 should be included in Figure 3.

If you have any questions regarding this letter, please do not hesitate to contact me.

Lincoln Applied Geology, Inc



Beth Erickson
Senior Geologist