

From:MaureenO'Leary
Date:Friday,February17,2017at8:29AM
To:MaureenO'Leary
Subject: Rennie Farm Update

Dear neighbors,

I write with an update on the work at Rennie Farm. We have completed some major milestones in our remediation plan for the site. Additional work is ongoing.

Groundwater and Surface Water Monitoring Network

We have completed the installation of a comprehensive network of groundwater monitoring wells both on and off of College-owned property. Samples collected from this network have allowed us to identify the extent of the contaminant plume (please see the attached map). As part of the sampling process, measurements of the water level, or water pressure, for wells where the water level is above the ground surface, were made in each of the wells. We have also completed the testing of selected monitoring wells screened in the soil to estimate how quickly water can pass through the soil. The sampling, water level measurement, and soil testing data are used to estimate the direction of groundwater flow, rate of groundwater flow, and movement and concentration of 1,4-dioxane within the area. These data are important as we turn our focus to treating the affected groundwater, and long-term monitoring of water quality.

The long-term water-quality monitoring program will be presented in our application to the Department of Environmental Services (DES) for a Groundwater Monitoring Permit. This permit will guide our remedial efforts on site and will mandate regular sampling and reporting of water quality. We will keep you apprised of our progress with regular communications and you can access our reports via the DES OneStop website.

Groundwater Remediation System

The groundwater pump-and-treat system at the site has been constructed to remediate the source area and prevent further off-site movement of 1,4-dioxane. It accomplishes this by pumping groundwater from wells, thereby "capturing" the plume. The groundwater is then treated on the site and the cleaned water is returned to the natural hydrogeologic system.

The remedial pump-and-treat system at the site is operating, and in a start-up phase during which certain components of the groundwater extraction system are adjusted to achieve the objectives of design. This is necessary because the rate at which each well must be pumped to prevent movement of 1,4-dioxane off site is unique and the wells influence each other. A few photographs of the system under and following construction are attached.

The groundwater on site is treated to remove volatile organic compounds (VOCs) including 1,4-dioxane. The treated water is tested for the presence of VOCs to determine the efficiency of the filtration process and verify compliance with the water quality requirements for discharge of the treated water. Initial testing indicates that the system is removing 1,4-dioxane to below the state Ambient Groundwater Quality Standard (AGQS, 3.0 micrograms per liter) and the United States Environmental Protection Agency (EPA) risk-based guideline for drinking water (0.35 micrograms per liter).

Treated water is currently infiltrated into the ground in accordance with a permit issued by DES. To bring the treatment system into full operation, which includes discharging to surface water, the College applied for a required EPA permit. In order for our permit to be issued, the EPA must issue its new five-year Remediation General Permit (RGP) to EPA Region 1 (the region that includes New Hampshire), under the National Pollutant Discharge Elimination System (NPDES). The RGP allows states to discharge treated water from remediation activities to surface water. The EPA has confirmed that they are in the process of reissuing the Region 1 permit, but will not authorize discharge in our region under the RGP until that time. Dartmouth is doing everything that we can to accelerate the issuance of this authorization. Although the RGP is a separate federal matter not specifically related to the Rennie Farm remediation project, the absence of this blanket authorization restricts us to discharging cleaned water into the ground only, which limits the rate at which the College can extract the water to be treated.

Upcoming Event

Finally, a reminder that we will hold a Rennie Farm open house at the site to view the new pump-and-treat system and answer questions on Saturday, Feb. 18, from 10 am to noon.

As always, please feel free to contact me if you have questions or concerns.

Sincerely,

Maureen

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