



RENNIE FARM SITE INFORMATION SUMMARY

The following provide a summary of information regarding the site.

- From the mid-1960s until 1978, a less than ½-acre area was used as a State-licensed burial site for animal carcasses used in medical and other research, including testing using radionuclides. Human remains used in teaching, many of which were cremated, were buried in an adjacent approximately 100-square-foot area.
- Removal of the carcasses was completed during late 2011, under the approval of the New Hampshire Department of Health and Human Services, Radiological Health Section (RHS). During the removal, unexpected chemical waste was encountered. The New Hampshire Department of Environmental Services (DES) was notified and the contaminated materials encountered were removed.
- After analyzing samples taken from the site, RHS deemed the site free of radiological contamination and safe for unrestricted use.
- During April 2012, analysis of groundwater samples detected 1,4-dioxane (a volatile organic compound [VOC] used in laboratories) at a concentration exceeding the New Hampshire groundwater standard of 3 micrograms per liter ($\mu\text{g/L}$). The 1,4-dioxane is anticipated to be residual contamination in groundwater related to the chemical waste. The 1,4-dioxane concentration data for wells installed near the source area indicate a decreasing concentration trend over time.
- No other contaminants, including radionuclides and formaldehyde, have been detected in excess of NH Groundwater Standards in samples collected downslope of the animal and human burial areas.
- Working with the DES and consistent with State environmental requirements, Dartmouth is monitoring groundwater and surface water quality and has conducted a phased investigation related to the 1,4-dioxane. This work is focused on protecting human health and remediation of the 1,4-dioxane. Additional monitoring wells are being installed to monitor the extent and attenuation of the 1,4-dioxane.
- In order to ensure the safety of our neighbors, private water supply wells in the vicinity of the site were sampled, in consultation with DES. 1,4-dioxane has been detected within one private well adjacent to the site. The detected concentrations of 1,4-dioxane in samples from the well range from approximately 6 $\mu\text{g/L}$ to 4 $\mu\text{g/L}$. Bottled water was immediately provided to the residents of the home, and a treatment system installed to remove 1,4-dioxane from the water.
- An additional 18 private water supply wells have been sampled at the request of the individual property owners. 1,4-dioxane has not been detected in the samples collected from these wells.
- Work is ongoing to remove the source of the 1,4-dioxane and control transport of 1,4-dioxane from the Rennie Farm property. The remedial system will include the removal and treatment of contaminated groundwater from the source area. Construction of the system is anticipated to be completed during 2016.
- Bagged laboratory waste was encountered within one anomalous area identified by a recent geophysical survey performed as part of the planning for remediation of the source. The laboratory waste will be excavated and removed. Groundwater sampling adjacent to the anomalous area did not detect 1,4-dioxane. The geophysical survey did not indicate the presence of any further waste.
- Dartmouth will remediate the site and continue monitoring groundwater wells and selected drinking water supply wells under a Groundwater Management Permit to be issued by the DES.