Glenburn Former Ground to Air Transmitter (GAT) Site in Glenburn, Maine

Project Characteristics:

- Long-term groundwater monitoring program for Volatile Organic Compounds (VOCs)
- Groundwater sampling from monitoring wells, residential drinking wells, public supply wells, and porewater sites.
- Sub-slab soil vapor and indoor air sampling
- Monitoring safety of drinking water for property owners

Woods Hole Group was contracted by the US Army Corps of Engineers (USACE) to perform long-term monitoring program at Glenburn GAT Site located in Glenburn Maine. AMEC is a partner, providing groundwater hydrology expertise and equipment. This site falls under the Defense Environmental Restoration Program (DERP) Formerly Used Defense Sites (FUDS) program. The U.S. Air Force (USAF) built and operated the Boeing Michigan Aeronautical Research Center (BOMARC) Missile Defense on the site from 1958 until 1964. During this time period, waste solvents were reportedly disposed onto the ground, contaminating the groundwater. Currently this property contains the Glenburn Town Hall, Public Safety Building, Salt Storage Building, and the Homestead Estates water supply wells. USACE monitors the site to characterize the nature and extent of volatile organic compounds (VOCs) in the groundwater. The primary contaminant of concern is trichloroethylene (TCE). USACE has been working with the town of Glenburn, local residents, and the Maine Department of Environmental Protection (MEDEP) to determine next steps for the site.

The existing monitoring program involves collecting groundwater samples from monitoring wells, residential drinking wells, a public water supply well, and a groundwater seep on a semi-annual basis (spring and fall).



FLUTe liners were installed in certain wells to allow sampling from isolated depth intervals. After each sampling round, a report is published and notification letters are sent to each respective residential and commercial property owner. One residence has a carbon treatment system to remove VOCs in case concentrations exceed the State of Maine Maximum Exposure Guidelines (MEGs). Woods Hole Group oversees the maintenance of this treatment system and ensures proper function by analyzing samples before and after filtration.

In November 2010, the team performed sub-slab soil vapor and indoor air sampling to determine whether a pathway for VOCs from groundwater to soil vapor and to indoor air existed at Glenburn Town Hall. Indoor air samples were collected from inside the building and soil vapor samples were taken from borings in the foundation. An analysis of the groundwater, soil vapor, and indoor air analytical results showed that an exposure pathway may exist at the Town Hall for several VOCs; however, no further investigation were deemed necessary as the indoor air concentrations were below the regulatory standards for commercial exposure.

The long-term monitoring program at the Glenburn GAT will continue for the foreseeable future. The Woods Hole Group is continuing to work with the USACE and various stakeholders to determine the next steps for the site.

