

TCE Plume: Problem Resolved... For A While!

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Information provided by DEQ during Antrim Coalition United Through Ecology's (ACUTE) final meeting on December 19th suggested that the trichloroethylene (TCE) plume is expected to continue its migration from Mancelona toward Lake Bellaire for many, many years to come. Based on recent monitoring results and forecasts from a recently developed 3-D groundwater model, DEQ's contractor, MACTEC Engineering & Consulting, updated the informal group of community stakeholders who attended the December 19th meeting. The biggest concern with this groundwater contamination is that the TCE plume is migrating in the direction of the Cedar River Well Field, which is a major source of drinking water in the Mancelona Area Water & Sewer Authorities' public water system. This well field draws its water from the deepest aquifer. TCE has been detected about 12,000 feet "upstream" in this aquifer, which may take 30 to 40 years to reach the screens of these wells, based on a continuous migration rate of 300 to 400 ft per year. But the TCE in a shallower aquifer is only 4,300 feet from these important drinking-water wells. MACTEC is still investigating the leakiness of the clay layer separating the two aquifers. If the clay layer allows the TCE to be drawn from the shallow aquifer into the deeper aquifer, then these wells could become contaminated within 11 to 14 years, based on the same migration rates.

By mid-year 2008, DEQ's ongoing investigations are expected to reduce the uncertainties about the threat to the Cedar River Well Field. DEQ is installing two sentinel wells in the path of the TCE plume. Information from these new wells will be used to determine the leakiness of the protective clay layer and the annual monitoring of the water from these well will be used to provide an early warning of pending TCE before the plume intercepts the drinking water wells. In addition to the information from these sentinel wells, the Health Department is continuing it's monitoring of residential well water in the path the TCE plume. In 2007 DEQ funded a \$2.5 million extension of the public water system in areas where residential well water is affected or threatened. This extension of water mains is expected to be on line by June 2008.

The biggest learning from TCE plume is the effectiveness of a non-adversarial approach to seeking solutions to a groundwater contamination problem. Through a process of regular meetings for the past five years, ACUTE a group of community stakeholders, including Three Lakes Association, developed a community consensus regarding the non-need and economic non-practicality to remediate this TCE plume. ACUTE members include local government officials, property owners, and environmental organizations. Public health is being protected by providing access to safe public water to residents in the affected area. ACUTE's mission has been to interface with DEQ and to actively search for innovative remediation technologies. Since there is no longer a compelling mission for ACUTE, it will discontinue regular meetings with DEQ until new information indicates the need to address new threats from the TCE plume, such as the relocation of the Cedar River Wells.