



Antrim County United Through Ecology (ACUTE)

Meeting Notes: February 7, 2014

Trichloroethylene (TCE) Groundwater Plume

Attendees: Dean Branson, Three Lakes Association (TLA); Gary Knapp, TLA; Gary Street, Freshwater Future; Peter Bigford, Shanty Creek Resort; David Peterson, Helena Twp.; Steve Murray, AMEC E&I; Leonard Mankowski, AMEC E&I; Linda Gallagher, Antrim County Review; Grenetta Thomassey, Tip of the Mitt Watershed Council; Jim Peters, Oil & Gas Industry; Jack Harmon, Cedar River Village; David Howelman, Antrim County; William Koenig, MAWSA; Roxann Flake, Custer Twp./MAWSA; Joe Elliott, Gourdie-Fraser Engineer; Randy Rothe, DEQ-RRD, Garylord; Janice Adams, DEQ-RRD, Gaylord, Greg MacMaster, Representative; John A'Donna; Scott Kendzierski, NW MI Health; Lori Luckett, Village of Bellaire; Joel Parker, ECT; Michael Dybas, ECT; Bob Wagner, DEQ-RRD; Mike Smith, H2o; Penny Dupuie, MAWSA; Jim MacQuarrie, MAWSA; Holly Gohlke, MDEQ; Bob Edwards, BluNorth Realty

Welcome and introductions by Gary Knapp. By way of introducing Bob Wagner and Joe Elliott, Gary Knapp framed the meeting by summarizing the reasons for postponing the January 24th meeting until today February 7th. The reason is that DEQ revised their interpretation of their data related to the need to replace the Cedar River Well Field due to its potential of the water from these wells being impacted by the TCE plume any time in the foreseeable future. If the pump rate is reduced from 600 gallons per minute (gpm) to 100 gpm, DEQ expects the water to be safe. Consequently in response, ACUTE worked with Gourdie-Fraser to modify the preliminary engineering plan and scope of work to assure the long-term safety of water in the public water system. The following represents a synopsis of Bob Wagner's and Joe Elliott's remarks:

1. **Bob Wagner, DEQ-RRD** – The DURA / Wickes site have been monitored and addressed since 1999. The TCE continues to march on as it has not diluted as much as they would have liked. DEQ supplies money and monitoring. There is no natural degradation. DEQ's current interpretation of their data is that the TCE plume will pass over the screen of the Cedar River Well Field (CRWF) in the shallow aquifer. In the intermediate aquifer the TCE plume could be drawn into the well screens. The TCE in the deep aquifer is 270 years away from the screens of the Cedar River Well Field, moving slowly. Its migration rate has been tracked for the past 12 years. Exposure to TCE from this deep aquifer does not justify DEQ's clean-up dollars. The State's initial investment in the public water system was justified based on the risk of actual exposure to TCE. With respect to water from the CRWF pumped at a rate of less than 100 gallons per minute, DEQ does not expect TCE exposure risk.
2. As Gary Knapp asked Joe Elliott to explain the needed improvements in the public water system, he noted that this is a different message from DEQ than we received at the December 13, 2013 meeting of ACUTE. **Joe Elliott, Gourdie-Fraser** has been involved with public water system since 1999. The goal is to supply safe drinking water into the public water system and to increase the amount of water in the public water system as the need arises, i.e. We're looking at both long term and short term solutions to this problem. One of the first engineering projects will be to build a new storage facility at the CRWF

so the pump rate can be reduced from 600 gpm to 100 gpm. The next project would be to extend water mains to those properties currently served by the Shanty Creek-Well System, because DEQ has determined that the water from the Shanty Creek Wells appear to be in the migrating path of the TCE plume in about seven years. The additional supply of water will come from a new well on the east side of Mancelona, which is up gradient from the TCE plume. We anticipate water pressure issues, but these issues can be managed. The Mancelona public water system and the Schuss Mountain water system are connected but viewed as two separate systems. Details and cost estimate were provided. The Chief Condos and approximately 200 lots could also be impacted. There may be opportunities for some cost savings with appropriate timing and tank sizes; but the total cost is about \$4.75 million.

3. **Bob Wagner's follow-up:** DEQ Director Dan Wyatt directed Bob Wagner and the Senior Management Team to find a long-term solution to this problem in terms of funding at the highest levels within Michigan's State government, which includes the development of an action plan and to advocate for the funds. \$4.75 million would be used to assure safe drinking water and continue to use the CRWF with additional storage for peak uses
4. **Representative MacMaster** indicates we have the best people working on this at all levels. A time line is needed as soon as possible to get it into the 2015 budget. A special thanks to Director Dan Wyatt, for understanding this problem. It should not be a problem getting this passed through. There are funds available, this is a "drop in the bucket" compared to the economic benefit associated with assuring a long-term supply of safe drinking water, and the economic impact associated without this assurance. We will need the supportive information for the financial impact on the State and on the individual property owners who have "skin in the game." We also need to agree on a time-line, and to make sure DEQ is in agreement with the timeline and the economic picture.

Grenetta Thomassey of Tip of the Mitt Water Shed Council is on board to help with educating in the local communities and will work with Rep. MacMaster. Rep. MacMaster reiterated the importance of the economic picture. Rep. MacMaster thanked everyone for their time and efforts and encouraged anyone to "please reach out to me if you run into issues."

The solution to the problem of assuring safe water is absolutely implementable. We are being proactive rather than reactive, getting the best options and best funding before it gets critical. This is very good news. Very important that everyone have confidence that this is going to be handled properly. We are all ambassadors and need to get the word out. Public perception is very important. A recommendation to have an ACUTE website and Facebook page was made. This is an excellent example of the government and the people working together. We need to develop action plans to advocate for funds to address the TCE threats to local drinking water.

5. **Remediation:** Beyond providing safe drinking water, ACUTE also wants to remediate as much of the TCE in this groundwater plume as possible. Although this group evaluated several possible technologies to remediate portions of this TCE plume about six years ago, no applicable technologies were found for a site this size. With technology advances in drilling and chemical oxidation there are now more options to explore. A presentation by Mike Dybas and Joel Parker of Environmental Consulting & Technology (ECT) explained some options and pros and cons of oxidation, nutrients and enhanced microorganisms to dechlorinate the TCE in the plume. These technologies have worked at other sites. A work group was formed to evaluate these options for this site and, if feasible, then to work together to proposed a pilot study. The work group includes Mike Dybas, Joel Parker, Janice Adams, Jim Peters, Gary Klecka, Gary Street, various university staff, Scot Kendzierski, Dave Peterson, Chris Young, Gary Knapp, and Dean Branson. Dave Peterson distributed a proposed TCE work group

plan draft of goals and tasks. The tentative plan is to start with a small bench test, lab test using already contaminated (hot) wells. Initial screening would be quick and cheap. Looking at approximately \$5,000 for testing. There are places to apply for grants for the needed funds.

We will schedule another meeting of the plenary ACUTE group when there is specific news from the DEQ in Lansing to discuss. Meeting adjourned at 12:15 p.m.

Historical information about this site can be accessed on the M-DEQ's website: <http://bizhost-c5.mactec.biz/wickes/>. Also ACUTE-related information can be found on Three Lakes Association's website: www.3lakes.com (TCE plume tab).

Respectfully Submitted
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