



TOWN OF SHERBORN
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January 19, 2016

Stephen Johnson, Deputy Regional Director
Bureau of Waste Site Cleanup
Massachusetts Department of Environmental Protection
Northeast Regional Office
205B Lowell Street
Wilmington, Massachusetts 01887

RE: MassDEP – Private Well Test Results

Dear Mr. Johnson:

The Sherborn Town Administrator and Board of Selectmen have had a chance to review the Private Well Results letter from the Massachusetts Department of Environmental Protection (MassDEP) dated December 16, 2015 that transmits an abbreviated summary reporting of the results of sampling of groundwater supplies at 14 homes in the Town of Sherborn (Sherborn). The Board of Selectmen has retained expert hydrologists to assist the Board in reviewing these results and the DEP's Phase III Remedial Action Plan to be released in February.

We have several concerns about the sampling that might alter MassDEP's conclusions. MassDEP's letter suggests that Sherborn groundwater is unimpacted and protected from the contaminant plume emanating from releases to the environment at the General Chemical Corporation (GCC) site in the neighboring Town of Framingham. However, we have identified several uncertainties that suggest the MassDEP data are, at best, inconclusive about GCC-related groundwater impacts, or worse may be biased such that the data collection has missed a more serious problem.

ASSESSMENT OF RESULTS

The town appreciates the MassDEP's second round of sampling at homes in Sherborn where several volatile organic compounds (VOCs) were detected during the first sampling round in April 2012. Our assessment of the results provided by MassDEP to date follows below:

- ▶ **Rule-out of Septic System Sources** – A septic system source for the detected contaminants has been ruled out by MassDEP. Septic system source fingerprinting designed and implemented by MassDEP revealed no septic sources impacting the Sherborn household wells.
- ▶ **Consistent Suite of Contaminants with GCC** - The contaminants found during the prior sampling at six homes and those found during the recent sampling at 126 Coolidge Street are consistent with those detected at the nearby GCC site that has a long-standing contaminant plume traveling towards Sherborn. This observation combined with the new determination by MassDEP regarding an absence of septic system source signatures points directly to the source of groundwater contamination in Sherborn as the GCC facility.

- ▶ **Alternative View of Apparent Concentration Changes** – The MassDEP recent sampling showed an apparent decline in concentrations of chemicals detected in the wells. These declines may be attributable to causes that warrant further analysis and investigation.

Lack of supporting documentation – The MassDEP household well sampling report sent to the Sherborn Selectmen was not provided with any of the typical documentation that accompanies such tests including the laboratory data reports and associated back-up and quality assurance/quality control documentation for data usability assessments, field sampling notes demonstrating conformance to standard operating procedures (SOPs), work plans and sampling methodology documentation and chain of custody to assure that representative groundwater samples were obtained. It is noteworthy that just prior to MassDEP's sampling, The Town of Framingham submitted to MassDEP a sample field record and Standard Operating Procedure that their LSP would follow if private well sampling were to be conducted, and suggested that the procedures be considered during the sampling; however, MassDEP did not want to adjust their sampling approach from the previous sampling. Recently, The MassDEP has uploaded the laboratory data and the chain of custody information but the other data are still not available. From what data is currently available, it appears that there was insufficient purging of wells and investigation of the water systems to document that representative samples were collected. The lack of representative sampling would tend to bias the results low because VOCs such as 1,4-dioxane, tetrachloroethene (PCE), and trichloroethene (TCE) could be released to the atmosphere (stripped) from the plumbing lines prior to sampling if insufficient purging was conducted. These compounds are among the most hazardous to human health and have respective health risk levels in the parts per trillion and parts per billion levels. In addition, nearly all PCE results were potentially impacted by laboratory contamination as revealed in the method blank results, further impacting the representativeness of the sample results. Also the homeowner well at 6 Meadowbrook Road was not sampled despite having prior detections of GCC related contaminants and no homeowner refusal to sample was provided.

- *Sensitive receptors* – While our neighbors in the Town of Framingham are directly impacted on several levels by the contaminant releases at the GCC facility, Framingham does not depend on groundwater as a source of potable water as does Sherborn. We remain profoundly concerned that Sherborn homeowners continue to be at risk and should not be treated as sentinel monitoring points. MassDEP needs to compel GCC to install monitoring wells, and arrange to have them sampled semi-annually, in strategic locations to serve in a sentinel function. Properly constructed and maintained groundwater monitoring wells would also provide a degree of groundwater monitoring consistency and access not present with the Sherborn private water supplies. Advance notice of the migration of the plume is critical for protection of Sherborn's private water supplies. Note that Sherborn has a much lower cleanup expectation for groundwater than the MassDEP may understand. Sherborn's Health Department standards require cleanup to *nondetect* levels, which have already been exceeded in the six homeowner wells bordering the town line with GCC. The Town Selectmen had previously requested in a July 17, 2015 letter to the MassDEP that deep wells be installed as sentry wells between the GCC site and Sherborn and for investigation of the GCC site source for impacts to deep bedrock. The impacted wells in Sherborn have well screens extending from 200 to 500 feet in bedrock yet no observation wells of this type have been installed by GCC.
- *Ongoing Scope of Impact* - The contamination from GCC has gone unabated since the first detections by site investigations in 1992 showed contamination and since that time repeated sampling has shown impacts to Course Brook in Framingham, Sherborn and extending into the Town of Natick as far downstream as has been sampled to date. There are also continuing discharges from GCC impacting a MWRA water supply aqueduct that receives contaminant plume discharges from GCC and empties into Course Brook and possibly beyond. Recent sampling has also shown that Sherborn farm irrigation water has been increasingly impacted by GCC contaminants and a commercial supply well in Framingham has also been impacted. In particular, the most recent semiannual sampling shows that both Sherborn farm irrigation ponds are contaminated with GCC COCs as compared to the prior sampling which showed only one of the ponds contaminated. Also it is noteworthy that GCC bedrock well 201R located up gradient and less than 900 feet from Sherborn has shown steadily increasing VOC and 1,4-dioxane concentrations since its installation in 9/3/14.

REQUEST FOR ACTION

The Town of Sherborn respectfully requests that MassDEP, in anticipation of the Phase III Remedial Action Report to be issued by GCC, arrange for the following:

- ▶ **Groundwater Monitoring** – Immediate resampling of six (2,6,12,22 Meadowbrook Road and 125 and 126 Coolidge Street) Sherborn wells that have been impacted by the GCC plume contaminants of concern (COCs) to ensure that *representative* samples are collected in a *transparent process* so that the level of contamination can be determined in a scientifically defensible method or otherwise provide documentation that the investigation was carried out using standards consistent with those demanded by MassDEP for the Licensed Site Professional (LSP) community.

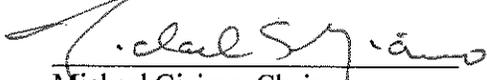
- ▶ **Deep Bedrock Evaluation** - It should also be recognized that because the impacted Sherborn wells are very deep (300-500 feet) with large open screens that a large amount of dilution occurs in the wellbore and therefore any detection of contaminants at the home probably means that there are individual bedrock fractures that are transmitting very concentrated contaminants to the wells that is being diluted, thus missing important fate and transport information critical to the correct and complete cleanup of the releases attributed to GCC. These high level contaminant zones must be intercepted prior to reaching Sherborn. The town depends on well water for 100-percent of its water supply and cannot afford to allow this plume to continue migrating into Sherborn. MassDEP needs to conduct, or compel GCC to conduct, a comprehensive evaluation of impacts to bedrock fractures serving as conduits of contaminant migration to Sherborn and likely other receptors. To this end, the Town of Sherborn respectfully offers the following recommendations:
 - **Sentry Wells** - Installation of deep bedrock sentry wells between the GCC site and the Town's homeowner wells and shallow bedrock testing into fractured bedrock near well GZ-19DD down gradient of the GCC site where levels of 1,4-dioxane have exceeded risk levels by several thousand times. The MassDEP has proven that the contamination in Town wells is not from homeowner septic systems so the most probable source is the GCC plume. MassDEP needs to explore this GCC source and shut it off immediately unless, and until, a more probable source emerges. GCC stored 1,4-dioxane drums onsite to manufacture solvents and recycled solvents that were handled at GCC are known to concentrate 1,4-dioxane through reuse.
 - **Adopt a Non-detect Standard for Groundwater Cleanup** - MassDEP should adopt a *Non-detect* cleanup standard for GCC VOC contaminants entering Sherborn's aquifer and wells and potentially recharging Sherborn's groundwater resources such as Course Brook, discharges to farm ponds, and the MWRA aqueduct. Sherborn's Board of Health Regulations sections 17.3 and 17.4 require cleanup of VOCs to nondetect levels.
 - **GCC Plan Review** - Review and assess the GCC remedy plan to be released in February with a focus on shutting off the GCC site chemical discharges through active, vigorous and timely remedies that address the contamination at the source and contain the plume rather than allowing it to remain unabated, impacting Sherborn, Framingham and Natick Brooks, farm irrigation ponds and private and commercial wells.
 - **Ongoing Communication** – Sherborn requests that MassDEP request GCC to provide a document repository of historical and ongoing reports in the Sherborn Library. Sherborn is also hoping that MassDEP will provide frequent updates of the progress of the site cleanup and assessment including providing detailed schedules for upcoming work so that the town may prepare accordingly.

Sherborn will be commenting on the Phase III Remedial Action Plan report to be released in February and we would appreciate your consideration of the Town's current and future comments and the need to protect the community's health and the environment during your evaluation of the Phase III report.

Please contact me if you have any questions or comments.

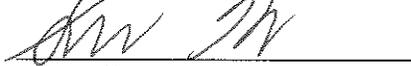
Very truly yours,

The Sherborn Board of Selectmen


Michael Giaimo, Chair


Paul DeRensis, Vice Chairman


Mark Brandon, Clerk


Sean Killeen


Charles Yon

cc: Members Sherborn Board of Health
Roger Demler, Sherborn Water Commissioner
Members of the Framingham Board of Health
Members of the Natick Board of Selectmen
Mr. Michael Persico, President, GCC
Mr. Steven Ganley, General Manager, GCC- Framingham
Mr. Eric Worall, MassDEP, Regional Director NERD
Ms. Rodene Lamkin, MassDEP
Mr. Robert Halprin, Town Manager, Framingham
Mr. Matt Torti, Framingham School Department
Mr. Robert McArthur, Framingham Conservation Commission
MWRA
Carol Bois, Framingham Health Department
Mr. Jack Hughes, Exelon
Ms. Ronda Andrews, Primary PIP Petitioner FACES
Senator Elizabeth Warren
Senator Edward Markey
Congresswoman Katherine Clark, 5th MA Congressional District
Senator Richard Ross
Representative David Linsky
Senator Karen Spilka
Representative Thomas Sannicandro
Representative Christopher Walsh
EPA New England's Office of Civil Rights and Urban Affairs (OCRUA)
Cynthia Giles, Assistant Administrator for the Office of Environmental and Compliance Assurance, EPA
Governor Charles Baker
David Williams, Town Administrator, Town of Sherborn
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