

12-6136
January 25, 2007

Mr. Gilbert Richards
Bureau of Waste Management
Department of Environmental Protection
Hartford, CT 06106-5127

Re: Significant Hazard Report
13 Watrous Street and 103 Main Street
East Hampton Village Center

Dear Mr. Richards:

Tighe & Bond has prepared this combined Significant Environmental Hazard report for 13 Watrous Street and 103 Main Street (sites). This report provides the actions, including analytical results, status of untested wells, and recommended further actions and monitoring as required by Connecticut Public Act 98-134. This report represents one component of an Environmental Protection Agency (EPA) Brownfields Assessment Grant awarded to the Town of East Hampton.

Background

Tighe & Bond performed Phase I and II environmental site assessments (ESAs) on 13 Watrous and 103 Main Street. The Town of East Hampton submitted two Significant Environmental Reports to the Connecticut Department of Environmental Protection (CTDEP) on August 26, 2005 as required by CGS 22a-6u.. The reports were required because the Significant Environmental Hazard of "Drinking Water Well Threatened" was identified during the Phase II Environmental Site Assessment at both sites. Specifically, trichloroethene (TCE) was detected in the groundwater at 13 Watrous Street above the Groundwater Protection Criteria (GWPC). Additionally, antimony and lead were detected above the GWPC in the groundwater at 103 Main Street.

During preparation of the Significant Environmental Hazard reports for the two sites, the Town of East Hampton proactively sampled two water supply wells located at 13 Watrous Street. One of the wells, located with the interior of the building, is currently inactive but was formerly used to supply the facility. The other well, exterior to the building, formerly supplied two residences located adjacent to the facility. TCE was not detected in the exterior well but was detected in the former interior facility well. Additionally pesticides were detected in the interior well including chlordane, dieldrin, and trans-nonachlor. Tighe & Bond verbally

notified Gilbert Richards of the CTDEP by voicemail of the detections of pesticides on September 27 and 29, 2005. The analysis for pesticides was included in the analysis of water supply wells identified within the receptor survey.

CTDEP acknowledged receipt of the reports in a letter for each site dated September 13, 2005. The letters contained specific requirements of the CTDEP including a receptor survey to locate supply wells within 500-feet of 13 Watrous Street and 103 Main Street and sampling of identified properties with wells for the constituents of concern (COCs).

Tighe & Bond prepared a receptor survey report on September 27, 2005. This report was provided to the Town of East Hampton, Gil Richards of the CTDEP, and Thad King of the Chatham Health Department. Tighe & Bond used ArcView 3.3 Geographical Information Systems (3.3) to create two sets of buffers around the sites, 1/4-mile and 500-foot (Figure 1). The 500-foot buffer contained an overlap between the two sites for a contiguous area of 51 acres. The buffer extends north to the Bevin Manufacturing Company and the south to Niles Street. The area encompasses the majority of the Village Center area. A digitized parcel map, last updated in 2002, was provided by the Midstate Regional Planning Authority and overlain on the buffered areas. The number of parcels contained within or touching the buffer numbered 71 properties. Both buffers were also overlain on an aerial photograph provided by SBC taken in 2001 (Figure 2). The photograph provides the locations of houses and landmarks within the 500-foot and 1/4-mile buffered areas.

On September 1, 2005 Tighe & Bond personnel interviewed Vince Susco of the Water Pollution Control Authority. Mr. Susco identified the 29 properties served by the Village Center Community Water System. The Village Center Water System became operational in August of 1992 and has been owned and operated by the East Hampton Water Pollution Control Authority. The properties served by the water system are highlighted in blue on Figure 1. Mr. Susco subsequently reviewed the map and verified that the correct locations were identified. The properties are also shaded on the tables. Mr. Susco stated that all of the properties connected to the community water system were required to abandon their supply wells.

On September 1, 2005 Tighe & Bond personnel conducted a windshield survey of the receptor area. The purpose of the windshield survey was to identify street addresses within a 1/4-mile radius of the sites and to note visible wellhead locations within the same area. Figure 1 contains the locations of the 58 visible well heads.

Tighe & Bond also researched the locations of public water systems monitored by the Connecticut Department of Public Health. The following locations were proximate to the Village Center and the locations are provided on Figure 1.

System ID	Name	Address	Type of System
CT0429031	East Hampton WPCA – Town Center System	Main Street	Community Water System
CT0420264	Food Bag-East High Street	318 Main Street	Transient Non-Community
CT0420474	Spencers Funeral Home	112 Main Street	Transient Non-Community
CT0429113	Masonic Temple Association of East Hampton	111 Main Street	Non-Transient Non-Community

Results

The receptor survey was used by The Chatham Health Department to conduct sampling at the properties. All of the data presented in this report was collected by the Chatham Health Department and provided to Tighe & Bond for this report. The data is provided at the end of this report. All sampling analysis was performed by the Department of Public Health Laboratory in Hartford, Connecticut. It should be noted that additional historic drinking water results collected from sites within the study area are available through the Chatham Health District. However, this data was not collected as part of the Significant Hazard Reporting requirements and therefore not included within this report.

Table 1 provides the results of the 45 residences sampled between October 2005 and June 2006. The data is compared to the following standards:

- National Primary Drinking Water Regulations promulgated by the EPA.
- Action Limits for Private Wells, promulgated by the Connecticut Department of Public Health.
- The Connecticut Remediation Standard Regulation Groundwater Protection Criteria.

Three analytical methods were employed: EPA Method 524.2 for volatile organic compounds (VOCs), EPA Method 505 for pesticides and polychlorinated biphenyls (PCBs), and EPA Method 200.8 for lead and antimony. The proximity of the property to either 103 Main Street or 13 Watrous Street determined which analytical method was performed. All of the analytical results used within this report are provided in Appendix A. Figure 3 provides an illustration of the sampling results.

VOC analysis was performed on 34 properties located within proximity to 13 Watrous Street. Table 1 provides the 12 analytes detected in a supply well in at least one property. No VOC detections exceeded drinking water standards.

- Groundwater samples collected from 13 Watrous and 17 Watrous Street contained detections of TCE at 3.9 and 2.3 $\mu\text{g/L}$, respectively.
- Groundwater samples collected from 17 Watrous and 22 Watrous Street contained cis-1,2-dichloroethylene, a breakdown product of TCE, at a concentration of 0.6 $\mu\text{g/L}$.
- Methyl Tert Butyl-Ether (MTBE) was detected in well water from three sites, 107 and 111 Main Street and 5 Railroad Avenue, at concentrations ranging from 0.5 to 0.6 $\mu\text{g/L}$. The MTBE on Main Street is likely attributed to the documented release at the Food Bag located at 1 Colchester Avenue.
- Toluene was detected in supply wells at two properties including 2 and 6 Starr Place at concentrations of 0.8 and 1.4 $\mu\text{g/L}$, respectively.
- Groundwater collected from the interior drilled well at 13 Watrous Street contained a detection of trichloroflouroethene at 7.8 $\mu\text{g/L}$.
- The remaining compounds detected in the samples are grouped and regulated under Federal drinking water standards as trihalomethanes. None of the properties contained concentrations approaching these Federal limits.

Pesticide analysis was performed on 30 properties located within proximity to 13 Watrous Street. Table 1 provides the four pesticides detected. Eight properties contained groundwater with pesticide concentrations above drinking water standards.

- Alpha Chlordane was detected above drinking water standards at three properties located at 15, 16, and 19 Summit Street. The constituent was also detected, below applicable standards, in the groundwater collected from the interior supply well at 13 Watrous Street.
- Gamma Chlordane was only detected, below applicable standards, in the groundwater collected from the interior well located at 13 Watrous Street.
- Dieldrin was detected in groundwater from eight sample locations. Due to the low standard (0.03 $\mu\text{g/L}$) all eight detections were exceedences.
- Trans-nonachlor was detected in the groundwater samples collected from 13 Watrous Street below applicable standards.

Lead and antimony analysis was performed on 16 properties located within proximity to 103 Main Street. Table 1 provides the results. No lead or antimony detections exceeded drinking water standards.

- Antimony was not detected above reporting limits in any of the groundwater samples.

- Lead was detected at 4 $\mu\text{g/L}$ for two samples collected from properties located at 1 Starr Place and 116 Main Street.

According to the Chatham Health Department, all of the property owners sampled were notified of the results. The Chatham Health Department has notified the CTDEP of all of the drinking water exceedences. The CTDEP placed five of the properties containing pesticides immediately on bottled water. Three properties, 2 Starr Place, 13 and 17 Watrous Street are used for commercial purpose and therefore do not qualify for state response. Thad King of the Chatham Health Department indicated that the owners of 2 Starr Place and 17 Watrous Street have been informed of the drinking water exceedences and their obligation to notify their employees of potential workplace exposure. The Town of East Hampton owns the property at 13 Watrous Street which is currently vacant. CTDEP has indicated that filtration systems have been provided for the residences at 29 Watrous Street and 2 Bevin Court. All five residential properties will be provided with filtration systems and removed from bottle water.

Recommendations for Further Actions

The Chatham Health Department is performing additional sampling within the Village Center. A third significant hazard notification, to be addressed as a separate report, was triggered during a Phase II ESA at 3 Walnut Avenue (Water Tower Property). CTDEP is currently conducting additional testing of residential wells as part of their investigation into the pesticide groundwater contamination. It is recommended that the data gathered from both efforts continue to be exchanged to address any data gaps. Figure 3 depicts the locations of wells that have not been sampled and identified during this investigation as possible data gaps. In particular, no data was provided for 11, 13, 17 and 20 Summit Street. These locations should be sampled for VOCs and pesticides in accordance with the Significant Hazard Notification.

The Town of East Hampton, Chatham Health Department, and CTDEP have been in regular communication to eliminate the health risks posed by the contaminated groundwater within the Village Center area. We recommend that these parties continue to work in a collaborative fashion. Additional recommendations include requesting the Chatham Health Department to conduct a quarterly monitoring program to further define and identify the spatial distribution of the affected wells. Based on the results provided in this report, we recommend the following monitoring program:

Vicinity of 13 Watrous Street

- | | | |
|---------------------|---------------------|--------------------|
| • 17 Watrous Street | • 6 Starr Place | • 16 Summit Street |
| • 22 Watrous Street | • 8 Starr Place | • 19 Summit Street |
| • 29 Watrous Street | • 10 Starr Place | • 2 Bevin Court |
| • 2 Starr Place | • 5 Railroad Avenue | |
| • 4 Starr Place | • 15 Summit Street | |

Vicinity of 103 Main Street

- 105 Main Street
- 107 Main Street

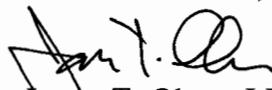
The locations of these properties are provided as Figure 4. Wells in the vicinity of 13 Watrous Street should be analyzed for VOCs and pesticides/herbicides. Wells in the vicinity of 103 Main Street should be analyzed for priority pollutant 13 metals. It is recommended that the CTDEP continue to investigate wells impacted by the confirmed petroleum release at the Food Bag on 1 Colchester Street. The release appears to have impacted wells located south of 103 Main Street.

The scope and frequency of the monitoring program should be reviewed annually and as additional data are available to maintain effectiveness. As indicated above, the CTDEP is leading the investigation into pesticide/herbicide impact and additional monitoring points should be added as appropriate. Additional recommendations for the program will be provided following completion of the Significant Environmental Hazard report for 3 Walnut Avenue (Water Tower Property). The Chatham Health Department should also research well construction details and conditions. This data will provide a more accurate depiction of the contaminant plume.

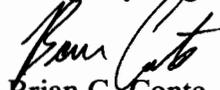
The Town of East Hampton believes this report satisfies the reporting requirements for 103 Main Street and 13 Watrous Street under Connecticut Public Act 98-134 and stated in the CTDEP notification response letters. If you have any questions or comments, please contact Brian Conte at (860) 704-4763 or James Olsen (860) 704-4761.

Very truly yours,

TIGHE & BOND, INC.



James T. Olsen, LEP
Senior Hydrogeologist / Office Manager



Brian C. Conte
Environmental Scientist

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Enclosures

Copy: Alan Bergren – Town Manager, Town of East Hampton

Dave Terry – Chairman East Hampton Brownfields Steering Committee

Dan Wolfram – East Hampton Brownfields Steering Committee

Thad King – Director of Health, Chatham Health District