

# Mottolo Pig Farm Superfund Site – Raymond, New Hampshire

## October 2009 Update

For a more detailed summary of the Mottolo Pig Farm Superfund Site (Site) land use history, past investigations, cleanup actions, and monitoring, please refer to the “*Mottolo September 2009 Update with Site History*” on the DES Hot Topics website at the following address:

[http://des.nh.gov/organization/divisions/waste/hwrb/fss/superfund/mottolo\\_pig\\_farm.htm](http://des.nh.gov/organization/divisions/waste/hwrb/fss/superfund/mottolo_pig_farm.htm)

Beginning with this update, the “*Mottolo October 2009 Monthly Update*”, information will be provided in a more streamline fashion to enable readers to easily review the most recent Site-related planning, investigations, reporting, decisions and actions.

### 1. Supplied Alternate Water Update

Additional investigations are needed to determine an appropriate long-term solution. See below for details on recent and planned future investigations and reporting.

### 2. On-Site & Off-Site Investigations

#### A. October on-Site subsurface investigation by EPA

On October 1<sup>st</sup> EPA mobilized a team of scientists to the Site to perform subsurface investigations to locate and define remnant sources of contamination in Site soils. The EPA team utilized a track-mounted boring machine (Geoprobe) to collect soil samples and an on-site mobile laboratory to analyze the samples. A total of 62 borings were advanced and approximately 150 samples collected for volatile organic compound (VOC) and arsenic analyses. There was a small area in the former drum disposal area where a thin layer (less than 2 inches thick) of black sludge-like material was found to contain primarily gasoline-related contaminants, i.e., toluene, ethylbenzene and xylene, at concentrations above their respective Site cleanup standard. One sample was also found to have a concentration of trichloroethene (TCE) as high as 1,500 micrograms per kilogram ( $\mu\text{g}/\text{mg}$ ), the cleanup standard for TCE in Site soils is 70  $\mu\text{g}/\text{mg}$ . Concentrations of arsenic generally ranged from none-detect to 40  $\mu\text{g}/\text{mg}$ . The data from this investigation will be summarized and analyzed in more detail in a report, to be prepared by the State’s Environmental Consultant, GZA GeoEnvironmental Inc. (GZA), by year’s end.

#### B. September 2009 quarterly residential well sampling

On September 23<sup>rd</sup>, DES collected water samples from twelve residential wells where impacts and potential impacts had been identified in the June and July (summer ‘09) sampling rounds. Results show that data are consistent with the summer ‘09 sampling results (i.e., VOCs were detected in the same four wells where VOCs were present in summer ‘09 and VOCs were not detected any other wells). However, where two wells showed exceedances of water quality standards for trichloroethene in the summer ‘09 sampling events, there were no exceedances of State drinking water quality standards for any Site-related volatile organic compounds in any of the wells sampled in September. Concentrations of arsenic, a naturally occurring metal, were found to be above the drinking water standard and at relatively similar concentrations in the same wells as the summer ‘09 results, with one exception where arsenic concentrations increased above the drinking water standard. Residents and Town officials will continue to be provided a letter and laboratory report after each sampling event. The letter reports for the September quarterly sampling were completed and mailed the week of

October 26<sup>th</sup>. The next scheduled quarterly sampling event will occur in December 2009. Data from this sampling effort will be summarized and interpreted in GZA's year-end report.

C. August 2009 Site-wide sampling of on-site monitoring wells

A total of 23 on-site groundwater monitoring wells were sampled in addition to 3 surface water and sediment sampling locations. Preliminary data summaries indicate data trends to be consistent with the last several years of Site data, with several wells still showing increasing trends of the contaminant trichloroethene. However, decreasing trends of arsenic in several wells were noted, but may be attributable to a change in sampling methods. Data from this sampling effort will be summarized and interpreted in GZA's year-end report.

D. Residential well investigations (November-December 2009)

DES, EPA and GZA are preparing to implement a detailed investigation of key residential wells located west of the Site to further define off-Site bedrock characteristics. The data from this investigation will be used to determine the optimal depth and location of bedrock wells to be placed on-Site, which will help determine if the water in these wells is connected to contaminated groundwater at the Site. Data from this investigation will also be summarized and interpreted in GZA's year-end report.

3. Next Steps

- A. The State will continue providing bottled water and water treatment systems to affected homes.
- B. GZA will conduct a detailed investigation of key residential wells.
- C. Quarterly residential well monitoring will continue. Next scheduled sampling is for December 2009.
- D. Interim report of findings by the State contractor, GZA, is scheduled for completion in late December 2009. The report will provide a summary, interpretation, and conclusions of the residential sampling program, on-Site subsurface investigation, on-Site groundwater sampling event and the detailed investigation of residential wells. The report will also make recommendations for the location of additional bedrock wells that will be used to support a determination of the best long-term solution for residual Site contamination.
- E. A second public meeting is planned for January or early February 2010. The purpose of this public meeting will be to disseminate key information provided in GZA's year-end report and provide an update of the project schedule.
- F. EPA and DES are entering into a Cooperative Agreement that will provide Federal funding to the State for the additional Site-related investigations and reporting.
- G. Installation of approximately six additional on-Site bedrock wells is expected to begin by March 2010.
- H. On-Site bedrock well sampling, geophysics, pump tests, etc., are expected to occur in April and May 2010.
- I. Remedial response options evaluation will begin summer 2010 and include an evaluation of alternatives for addressing residual on-Site soil contamination and the need and means of providing alternate water to the homes where drinking water has been impacted by Site contaminants.