

W.R. Grace & Company, Inc. Site

ATSDR's recommendations

- The Acton Water District should continue to monitor the Assabet, Scribner, Lawsbrook, and Christofferson wells to make sure that the air strippers are adequately removing VOC contamination and that the municipal drinking water supply meets all Safe Drinking Water Act requirements.
- Consistent with U.S. EPA's cleanup plan in the site's 2005 Record of Decision, address site areas with elevated levels of arsenic and manganese in sediment (i.e., Sinking Pond, North Lagoon Wetland) in a way that is protective of public health.
- W.R. Grace or an appropriate public health agency should check periodically the nonmunicipal wells used for nondrinking water purposes in the area of the W.R. Grace site. This will ensure that the wells are still used only for nondrinking water purposes and that contaminant levels do not pose a public health risk.
- Massachusetts Department of Environmental Protection should check periodically the TNC public water system at the sports arena.
- Do not build or install any new private wells near the groundwater plume emanating from the W.R. Grace site. Enact institutional controls, local town ordinances, or deed restrictions to accomplish this prohibition. An "administrative hold" currently prevents issuance of new permits for private wells in this area. The "administrative hold" should become legally permanent.
- If in the future land uses change for the W.R. Grace property, any property owner or owners should assess the effect of any such potential reuse on public health. Especially, the owner or owners should assess how such reuse might affect children.

Whom do I contact for more information?

Community members can call any of the following ATSDR team members for more information:

- William Sweet, Senior Regional Representative at 617-918-1490
- Robert Knowles, Lead Health Assessor at 415-947-4317
- Loretta Asbury, Senior Health Communications Specialist at 770-488-0718, or
- Toll-free at 1-800-CDC-INFO (232-4636), and ask to speak with someone about the W.R. Grace Inc. Site in Acton, Massachusetts.

To learn more about ATSDR, visit our Web site at www.atsdr.cdc.gov.

Final Public Health Assessment Report W.R. Grace & Company, Inc. Site Acton, Middlesex County, MA

Overview

The Agency for Toxic Substances and Disease Registry (ATSDR) is a federal public health agency of the U.S. Department of Health and Human Services. ATSDR has released its final public health assessment (PHA) document on groundwater, soil, sediment, and surface water at the W.R. Grace & Company, Inc., Site in Acton, Middlesex County, MA.

In September 2008, ATSDR released to the community the public comment version of the document. The final PHA addressed and summarized all comments received.



ATSDR's conclusions

After a review of the historical data for Volatile Organic Compounds (VOCs) and metals, ATSDR concludes in the final PHA that:

- **Due to data limitations and gaps, past levels of VOCs in the Assabet wells pose an indeterminate public health hazard.** In the past, TCE levels might have exceeded current health guidelines. Nevertheless, any exposure time was short (about 9 years), and the levels were relatively low when compared with those associated with potential effects in health studies. Consequently, adverse health effects have probably not occurred.
- **Past contact to arsenic and manganese in the municipal drinking water supply is an indeterminate public health hazard.** This is because for this period, no historical data are available for manganese or arsenic in the Assabet wells.
- **Current and future contact with VOCs, arsenic, and manganese in the municipal drinking supply poses no apparent public health hazard.** Since the early 1980s the Action Water District (AWD) has treated groundwater through an air stripper to remove VOC contamination from active water supply wells. Thus, we do not anticipate current or future exposure to VOCs in the municipal drinking water supply. And given the concentrations of arsenic and manganese reported in the wells, we do not anticipate current or future adverse health effects from them.
- **Exposure to groundwater from non-municipal wells for non-drinking water uses poses no apparent public health hazard.** Six non-municipal wells were identified in the area of the W.R. Grace Site groundwater plume that were used for non-drinking water purposes:
 - a. One well contained vinyl chloride above the Comparison Value (CV). W.R. Grace converted it to a monitoring well.
 - b. Four wells show no present VOC contamination.
 - c. Although one well was not sampled, at the owner's request it was properly sealed.

Potential past exposure was limited to possible dermal contact from swimming in pools filled with well water or from irrigation activities. Because of the concentrations reported and the toxicological evaluation results, adverse health effects from these activities are not likely to occur.



- The Transient non-community (TNC) water supply well at the sports arena poses no public health hazard. One non-municipal well was identified in the area of the W.R. Grace Site groundwater plume that is used for drinking water purposes at a sports arena. The Massachusetts Department of Public Health classified the well as a transient non-community (TNC) public water system. It was sampled in May 2002 and again in July 2006. No VOCs were detected.
- Trespassers exposed to the highest levels of arsenic in sediment and surface water from Sinking Pond and the North Lagoon Wetland may have a slightly elevated risk for adverse health effects. Trespassers who frequent the site and come into contact with or incidentally ingest the highest levels of contaminated sediment over a lifetime face a moderately elevated, excess lifetime theoretical cancer risk. A review of the data shows that trespassers accessing the W.R. Grace site may have been exposed in the past to contaminants in soil, sediment, and surface water. Trespassers may also be exposed to such contaminants presently and in the future. Still, of the contaminants evaluated in sediment and surface water, only arsenic shows elevated risk. Note, however, that in this final PHA's evaluation of potential health effects from exposure to contaminants in sediment and surface water, ATSDR used conservative health effects assumptions. This could have resulted in an overestimation of potential contact to people.
- **VOCs present in shallow groundwater pose no apparent public health hazard.** The VOC concentrations at the W.R. Grace site were elevated. Thus thinking about possible health effects from any groundwater-related migration of contaminants is appropriate. That migration could occur through the soil and enter indoor air in residences and other buildings overlying the plume near the W.R. Grace Site. But modeled concentrations of those contaminants show that no adverse health effects are likely to take place.
- **Fish consumption from Sinking Pond poses no apparent public health hazard.** Based on the information provided to ATSDR, edible-size fish from Sinking Pond could not be caught after many tries. Because edible size fish could not be caught for evaluation, it is unlikely that others accessing the W.R. Grace site could regularly catch and consume fish from Sinking Pond on a regular basis. Even if an occasional edible size fish were caught and eaten, such irregular contact would most likely not result in adverse health effects.