

# Health Consultation

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PUBLIC HEALTH EVALUATION  
OF THE  
505 SOUTH MAIN STREET PROPERTY  
NEW BRITAIN, HARTFORD COUNTY, CONNECTICUT

MARCH 7, 2008

U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES  
Public Health Service  
Agency for Toxic Substances and Disease Registry  
Division of Health Assessment and Consultation  
Atlanta, Georgia 30333

## **Health Consultation: A Note of Explanation**

An ATSDR health consultation is a verbal or written response from ATSDR to a specific request for information about health risks related to a specific site, a chemical release, or the presence of hazardous material. In order to prevent or mitigate exposures, a consultation may lead to specific actions, such as restricting use of or replacing water supplies; intensifying environmental sampling; restricting site access; or removing the contaminated material.

In addition, consultations may recommend additional public health actions, such as conducting health surveillance activities to evaluate exposure or trends in adverse health outcomes; conducting biological indicators of exposure studies to assess exposure; and providing health education for health care providers and community members. This concludes the health consultation process for this site, unless additional information is obtained by ATSDR which, in the Agency's opinion, indicates a need to revise or append the conclusions previously issued.

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HEALTH CONSULTATION  
PUBLIC HEALTH EVALUATION  
OF THE  
505 SOUTH MAIN STREET PROPERTY  
NEW BRITAIN, HARTFORD COUNTY, CONNECTICUT

Prepared By:

The Connecticut Department of Public Health  
Under cooperative agreement with the  
The Agency for Toxic Substances and Disease Registry

*The conclusions and recommendations in this health consultation are based on the data and information made available to the Connecticut Department of Public Health (CTDPH) and the Agency for Toxic Substances and Disease Registry (ATSDR). CTDPH and ATSDR will review additional information when received. The review of additional data could change the conclusions and recommendations listed in this document.*

## BACKGROUND AND STATEMENT OF ISSUE

The United States Department of Health and Human Services (US DHHS) received a letter from a resident of New Britain, CT on April 3, 2007 that expressed concerns about the site located at 505 South Main Street in New Britain, CT. The concerns were related to the potential exposure of the neighboring community and future students to site-related contaminants at the planned Alternative Behavior Center for grades 6<sup>th</sup> –12<sup>th</sup>. The letter was assigned to the Agency for Toxic Substances and Disease Registry (ATSDR), accepted as a petition, and forwarded to the Connecticut Department of Public Health (CTDPH) for follow-up. The goal of this health consultation is to evaluate public health issues regarding the 505 South Main Street site.

The 505 S. Main Street site is approximately 1.13 acres and is located on the west side of South Main Street, north of Willow Brook Park, in the City of New Britain. A map of the site is found in Appendix A. The City of New Britain's Assessor's office, Map 3014, shows that the site comprises Lot 22 and is currently owned by The Consolidated School District of New Britain. Insurance records showed that a residence occupied the site in 1909. The property was also used as a construction material and storage yard from until recently to at least the 1950's. The site was also used previously by Maroni Oil to park oil trucks.

An environmental contractor completed a Phase I Environmental Site Assessment (ESA) for the former property owner, Ashley Realty, LLC, of the 505 South Main Street site on October 25, 2005 (Maguire 2005). Another contractor released a Phase II ESA prepared for the Consolidated School District of New Britain on February 28, 2006 for the 505 South Main Street site (JGI Eastern 2006). Groundwater and surface soil samples were taken as part of the Phase II ESA for a variety of volatile organic compounds (VOCs), total petroleum hydrocarbons (TPH), polychlorinated hydrocarbons (PCBs), and a small number of heavy metals. All of these soil sample concentrations were found to be below state cleanup standards. Both reports also indicated open containers of suspected petroleum product onsite and recommended that the containers be removed and disposed of as soon as possible.

The United States Environmental Protection Agency (U.S. EPA) responded to a letter they received from the same resident in June 2007 by evaluating environmental data from the property and concluding that the soil and groundwater samples are below state standards. In addition, a response dated September 2007 by the U.S. DHHS concluded that soil and drinking water were not a public health concern for the site. However, the letter did indicate a concern over whether the open containers of petroleum have been

removed from the site and whether construction activities are addressing the possible existence of localized contamination. The letter also stated that CTDPH would follow up on these issues. In response, a site visit on November 19, 2007 was conducted by CTDPH and ATSDR to evaluate current site conditions. During the site visit, ATSDR and CTDPH staff observed two fifty-five gallon drums probably filled with petroleum on the property. Because of the health risk of exposure to the contents of the drums, CTDPH then facilitated the removal of these drums with the New Britain Health Department (NBHD) in January 2008.

The school construction activities will be completed in February of 2008. The site is about 300 meters from a high school.

### *Site Visit*

ATSDR and CTDPH staff conducted a site visit at the 505 South Main Street site on November 19, 2007. The site consists of the following: 1) a nearly completed school building, 2) construction equipment, 3) paved driveway, 4) and a roll-off disposal container. Construction activities were occurring during the site visit. A chain link fence bounds the site on the north, east, and western sides. The southern side is unfenced and contains the driveway. The entire site was walked and there was no evidence of visible soil staining. The soil on the non-paved areas of the property appeared to be clean topsoil with areas of grass seeding. Two large piles of soil (one appeared to be soil, the other consisted of gray colored fine powder) were observed on the southwestern corner. Adjacent to the soil pile was a collection of construction materials (metal structures lying flat on the surface of the soil). Two fifty-five gallon drums were identified along the southeastern portion of the site. One construction worker, who was asked about these drums, stated that the site manager is working with an environmental testing company (Clean Harbors) to characterize the drum contents. The worker stated that the drums would be removed. The removal date was not stated. The worker also stated that the drums appear to contain a liquid - which he hypothesized was petroleum.

Throughout the site a few areas of trespasser debris (or possibly construction worker debris) were observed including: food wrappers, cigarette packages, and drink containers. The site is about 300 meters from a large building that was identified by the worker as a high school.

### *Environmental Contamination and Health Comparison Values*

The Phase II ESA describes results of surface soil and groundwater samples obtained from the site. Ten surface soil samples obtained from site were analyzed for a variety of VOCs, TPHs, a small number of metals, and PCBs. The Connecticut Department of Environmental Protection (CT DEP), CTDPH, and the U.S. EPA reviewed the sampling results and did not identify any public health concerns. Although, a few heavy metals (lead, chromium, and barium) and TPHs were detected in the surface soil samples, all concentrations were below Connecticut cleanup standards. PCB and VOC levels in surface soil were below detectable limits.

The community surrounding the site is served by a municipal water system. Community members are not exposed to site-related chemicals in their drinking water supply.

As stated earlier, both the Phase I and Phase II ESA reports noted that open containers of petroleum product were observed onsite. The Phase II report recommended that the containers be removed and properly disposed of as soon as possible. The report concluded that some localized contaminated soil could exist on the site even though widespread contamination was not detected in the soil samples. It was recommended that future development activities take into account the potential for localized soil contamination.

## DISCUSSION

### *Exposure Pathway Analysis*

The only past potential pathway was exposure to the suspected petroleum in drums onsite. These were potential exposure pathways dependent on the drums leaking their contents and exposing trespassers or workers. In addition, site access is not restricted; there is no fence surrounding the property. Trespassers or workers coming into contact with the drums could have been exposed by touching the contents of the drums (dermal) or by breathing vapor from the contents of the drums (inhalation).

Because the drums have been removed as of January 2008, there are no current potential pathways onsite.

### *Public Health Implications for Adults and Children*

When determining the public health implications of exposure to hazardous contaminants, CTDPH only evaluates exposures that are complete pathways.

The liquid contained in the drums has not been characterized, but has been hypothesized to be petroleum. The public health implications of either dermal or inhalational exposures to the constituents in the drums are varied and could include: CNS depression, acute respiratory distress (asphyxiation), increased risk of developing cancer, or skin lesions. Since the constituents may also include combustible VOCs, there exists the potential for the liquid to burn or explode. The health implications of such an event could include severe burns or even death due to a catastrophic explosion of a drum. During the November 2007 site visit, CT DPH staff learned from contractors that the drums would be removed at a future date, but the date was unknown.

## CONCLUSIONS

In response to a petition to ASTDR, CT DPH conducted a site visit to follow up on the petitioner's concerns about the site located at 505 South Main Street in New Britain, CT. The concerns were related to potential exposure to site related contaminants by neighboring community and future students at the planned Alternative Behavior Center.

During the Phase I and Phase II investigation, surface soil and groundwater samples were taken and the results of the sampling were not found to be a public health concern. However, two fifty-five gallon drums, partially filled with suspected petroleum product, were found on the site during a recent site visit and could harm the health of trespassers or construction workers. CTDPH then facilitated the removal of the drums with the NBHD in January 2008.

As requested CTDPH evaluated whether exposures exist from contamination present on the 505 S. Main St. property site. Under past site conditions, CTDPH concludes that people's health could have been harmed if they were in contact with suspected petroleum product from the drums located on the site. Under current site conditions, CTDPH concludes that we do not expect people's health to be harmed from the drums onsite because they have been removed.<sup>1</sup>

## RECOMMENDATIONS

1. We have no recommendations for the site at this time.

## PUBLIC HEALTH PLAN

### *Actions Taken*

1. CTDPH wrote a letter to the facilities director of the property notifying him that ASTDR had received a letter from a resident who had concerns about the site. CTDPH also stated that they would be doing a site visit on November 19, 2007.
2. CTDPH and ATSDR did a site visit on November 19, 2007 and observed two fifty-five gallon drums on the site.
3. CTDPH contacted the NBHD to notify them of the two drums and asked for their assistance in facilitating the removal of the drums.
4. The two drums were removed by a waste disposal company in early January 2008.

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<sup>1</sup> ATSDR has a categorization scheme whereby the level of public health hazard at a site is assigned to one of five conclusion categories (Appendix B). CTDPH has concluded that the site poses no public health hazard under the current conditions.

*Actions Planned*

1. CTDPH will continue to work with ASTDR and NBHD to respond to health questions and concerns involving this site.
2. CTDPH will continue to evaluate environmental data from the site if it is generated in the future.
3. CTDPH will provide a copy of the health consultation to the petitioner.



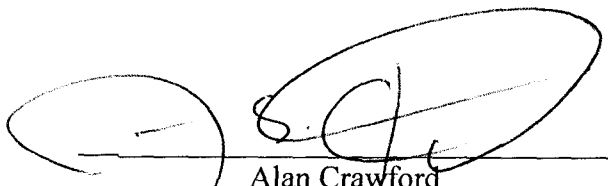
## REFERENCES

Maguire Group, LLC. 2005. Phase I Environmental Site Assessment Report of 505 S. Main St., New Britain, Connecticut.

JGI Eastern, Inc. 2006. Comprehensive Phase II Environmental Site Assessment Report of 505 S. Main St., New Britain, Connecticut.


## CERTIFICATION

The Health Consultation for the Public Health Evaluation of 505 S. Main Street Property, New Britain, Connecticut was prepared by the Connecticut Department of Public Health under a cooperative agreement with the Agency for Toxic Substances and Disease Registry (ATSDR). It was completed in accordance with approved methodology and procedures existing at the time the health consultation was initiated. Editorial review was completed by the ATSDR Cooperative Agreement Program.

A handwritten signature in black ink, appearing to read "Alan Crawford", written over a horizontal line.

Alan Crawford  
Technical Project Officer  
Division of Health Assessment and Consultation (DHAC)  
Agency for Toxic Substances and Disease Registry (ATSDR)

The Division of Health Assessment and Consultation (DHAC), ATSDR, has reviewed this health consultation and concurs with its findings.

A handwritten signature in black ink, appearing to read "Greg V. Ullrich", written over a horizontal line.  
Team Leader, Coop Agreement Program  
CAT, DHAC, ATSDR

PREPARER OF THE HEALTH CONSULTATION

Sharee Major Rusnak, MSPH, ScD  
Epidemiologist  
Environmental and Occupational Health Assessment Program  
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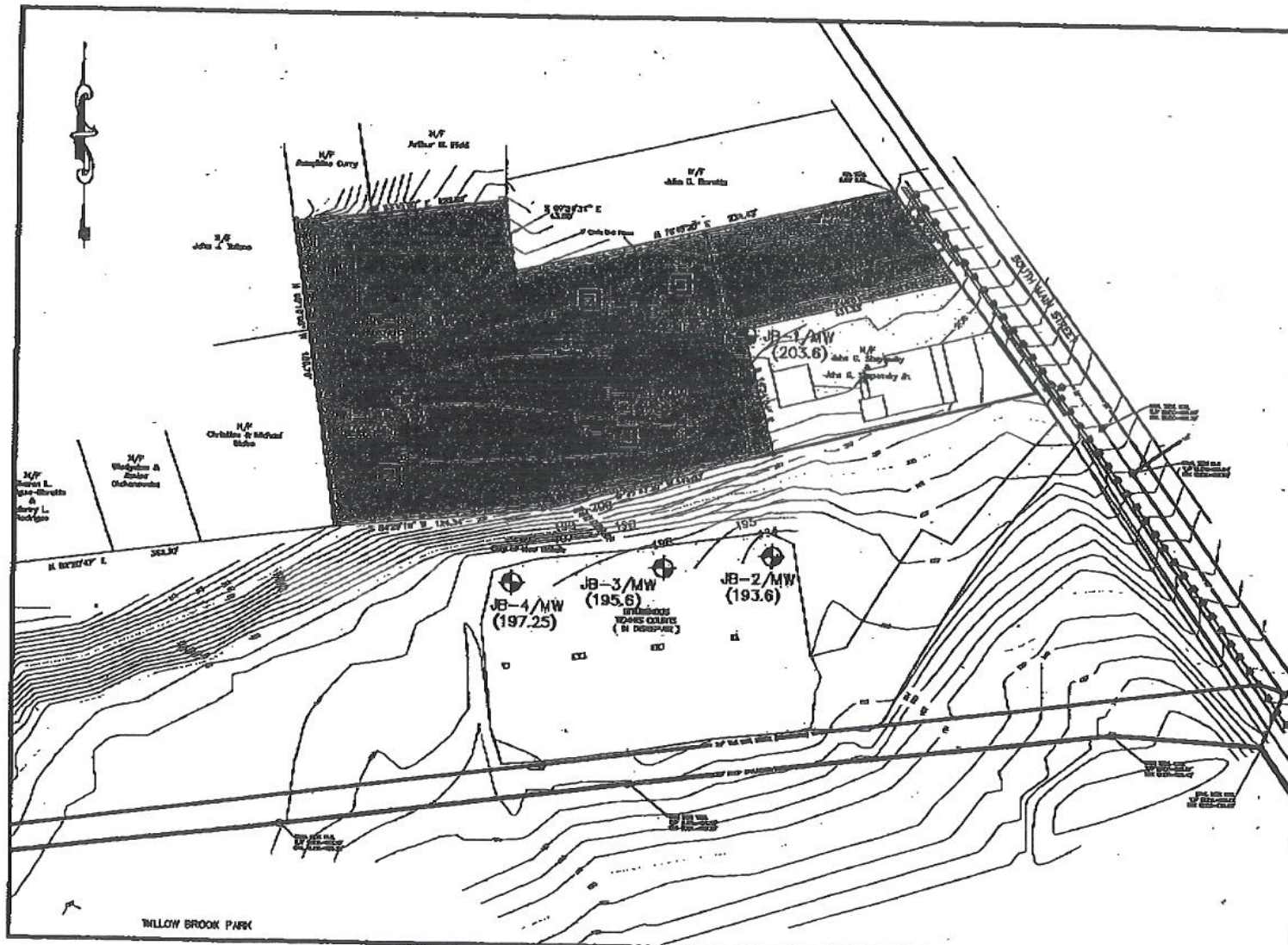
ATSDR Regional Representative:

William Sweet  
EPA/New England

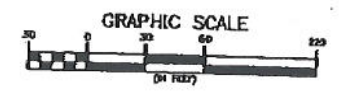
ASTDR Technical Project Officer

Alan Crawford  
Cooperative Agreement and Program Evaluation Branch  
Division of Health Assessment and Consultation  
Agency for Toxic Substances and Disease Registry

Appendix A  
Map of the 505. S. Main Street Property



- NOTES:**
1. THIS FIGURE WAS PREPARED FROM CITY OF NEW BRITAIN, CONNECTICUT, DEPARTMENT OF PUBLIC WORKS PLAN TITLED: "TOPOGRAPHIC MAP WILLOWBROOK PARK" SHEET: 1 DATED: NOVEMBER, 2005.
  2. THE EXPLORATIONS SHOWN AS JB-1/MW THROUGH JB-4/MW WERE ADVANCED ON DECEMBER 29, 2005 UNDER THE DIRECTION OF RZ HIGH EQUIPMENT OWNERS AND OPERATED BY NEW ENGLAND BORING CONTRACTORS INC. OF GLASTONBURY, CT.
  3. THE SURFACE SOIL SAMPLES SHOWN AS S-1 THROUGH S-4 WERE COLLECTED ON JANUARY, 3 2006 BY A JGI FIELD GEOLOGER.
  4. THE EXPLORATIONS SHOWN AS JB-101/MW THROUGH JB-104/MW WERE ADVANCED ON JANUARY 25, 2006 UNDER THE DIRECTION OF JGI WITH EQUIPMENT OWNED AND OPERATED BY NEW ENGLAND BORING CONTRACTORS INC. OF GLASTONBURY, CT.
  5. THE APPROXIMATE LOCATIONS OF THE SUBSURFACE EXPLORATIONS AND SOIL SAMPLING LOCATIONS WERE TAIED FROM SITE FEATURES. THE LOCATIONS SHOULD BE CONSIDERED ACCURATE ONLY TO THE DEGREE IMPLIED BY THE METHOD USED.
  6. USE OF THIS PLAN IS LIMITED TO THE ILLUSTRATION OF THE APPROXIMATE LOCATIONS OF THE SUBSURFACE EXPLORATION, SOIL SAMPLING LOCATIONS AND OTHER PROMINENT SITE FEATURES. ANY OTHER USE OF THIS PLAN WITHOUT PERMISSION FROM JGI IS PROHIBITED.



- LEGEND**
- [Symbol] SITE
  - [Symbol] JB-1/MW MONITORING WELL LOCATION (TYP)
  - (207.3) GROUNDWATER ELEVATION BY FEET (TYP)
  - ML- ESTIMATED GROUNDWATER SURFACE CONTOUR

**FIGURE 2  
TAX MAP/SAMPLING  
LOCATION PLAN**

**505 SOUTH MAIN STREET  
NEW BRITAIN, CONNECTICUT**

PREPARED FOR: THE CONNECTICUT STATE DEPARTMENT OF PUBLIC WORKS 100 STATE STREET HARTFORD, CT 06103	DATE: FEBRUARY, 2008 SCALE: 1" = 60' PROJECT NO. 05782
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**JGI**  
Geotechnical  
Environmental  
Construction  
& Materials Testing

**EASTERN, Inc.**  
114 Woodlawn Road  
Berlin, Connecticut 06037  
(860) 829-1725

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## Appendix B. ATSDR Public Health Categories

<b>Category/Definition</b>	<b>Criteria</b>	<b>ASTDR Actions</b>
<p><b><i>1. Urgent Public Health Hazard</i></b></p> <p>This category is used for sites where short-term exposures (&lt; 1 year) to hazardous substances or conditions could result in adverse health effects that require rapid intervention.</p> <p>This determination represents a professional judgment based on critical data which ATSDR has judged sufficient to support a decision.</p> <p>This does not necessarily imply that the available data are complete; in some cases additional data may be required to confirm or further support the decision made.</p>	<p>Evaluation of available relevant information indicates that the site-specific conditions or likely exposures have had, or are likely to have in the future, an adverse impact on human health that requires immediate action or intervention. Such site-specific conditions or exposures may include the presence of serious physical or safety hazards.</p>	<p>ATSDR will expeditiously issue a health advisory that includes strong recommendations to immediately stop or reduce exposure to mitigate the health risks posed by the site.</p>
<p><b><i>2. Public Health Hazard</i></b></p> <p>This category is used for sites that pose a public health hazard due to the existence of long-term exposures (&gt; 1 year) to hazardous substance or conditions that could result in adverse health effects.</p> <p>This determination represents a professional judgment based on critical data which ATSDR has judged sufficient to support a decision. This does not necessarily imply that the available data are complete; in some cases additional data may be required to confirm or further support the decision made.</p>	<p>Evaluation of available relevant information suggests that, under site-specific conditions of exposure, long-term exposures to site-specific contaminants (including radionuclides) have had, are having, or are likely to have in the future, an adverse impact on human health that requires one or more public health interventions. Such site-specific exposures may include the presence of serious physical or safety hazards.</p>	<p>ATSDR will make recommendations to stop or reduce exposure in a timely manner to mitigate the health risks posed by the site.</p>

Appendix B. ATSDR Public Health Categories (Continued)

Category/Definition	Criteria	ATSDR Actions
<p><b>3. Indeterminate Public Health Hazard</b></p> <p>This category is used for sites in which “critical” data are insufficient with regard to extent of exposure and/or toxicologic properties at estimated exposure levels.</p> <p>This determination represents a professional judgment that critical data are missing and ATSDR has judged the data are insufficient to support a decision. This does not necessarily imply all data are incomplete; but that some additional data are required to support a decision.</p>	<p>This category is used for sites in which “critical” data are insufficient with regard to extent of exposure and/or toxicologic properties at estimated exposure levels. The health assessor must determine, using professional judgement, the “criticality” of such data and the likelihood that the data can be obtained and will be obtained in a timely manner. Where some data are available, even limited data, the health assessor is encouraged to the extent possible, to select other hazard categories and to support their decision with clear narrative that explains the limits of the data and the rationale for the decision.</p>	<p>ATSDR will make recommendations in the public health assessment to identify the data or information needed to adequately assess the public health risks posed by the site.</p>
<p><b>4. No Apparent Public Health Hazard</b></p> <p>This category is used for sites where human exposure to contaminated media may be occurring, may have occurred in the past, and/or may occur in the future, but the exposure is not expected to cause any adverse health effects.</p> <p>This determination represents a professional judgment based on critical data which ATSDR considers sufficient to support a decision. This does not necessarily imply that the available data are complete; in some cases additional data may be required to confirm or further support the decision made.</p>	<p>Evaluation of available relevant information indicates that, under site-specific conditions of exposure, exposures to site-specific contaminants in the past, present, or future are not likely to result in any adverse impact on human health.</p>	<p>Recommendations made to reduce exposure are not needed to reduce risk but may be considered prudent public health practice.</p>
<p><b>5. No Public Health Hazard</b></p> <p>This category is used for sites that, because of the absence of exposure, do NOT pose a public health hazard.</p>	<p>Sufficient evidence indicates that no human exposures to contaminated media may have occurred, no exposures are currently occurring, and exposures are not likely to occur in the future.</p>	<p>ATSDR may make no recommendations or may recommend community health education.</p>