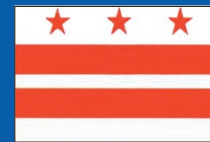




Activities in the District of Columbia



ATSDR in Partnership With the District of Columbia

The Agency for Toxic Substances and Disease Registry (ATSDR) is the lead public health agency responsible for implementing the health-related provisions of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA). ATSDR is an Atlanta-based federal agency with more than 400 employees and a budget for 2004 of approximately \$73 million. ATSDR assesses the presence and nature of health hazards at specific Superfund sites, helps to prevent or reduce further exposure and illnesses resulting from those hazards, and expands the knowledge base about the health effects of exposure to hazardous substances.

ATSDR works closely with state agencies to carry out its mission to serve the public by using the best science, taking responsive public health actions, and providing trusted health information to prevent harmful exposures and disease related to toxic substances. Through cooperative agreements and grants, ATSDR provides funding and technical assistance to states and other partners to identify and evaluate environmental health threats to communities. These resources enable state and local health departments and other grantees to further investigate environmental health concerns and to educate communities. In **fiscal years 1997–2004**, ATSDR awarded **\$10,000** in direct funds and services to the **District of Columbia** for comprehensive support of its environmental health unit. In addition to direct funds and services, ATSDR provides technical and administrative guidance for state-conducted site activities.

ATSDR Site-Specific Activities Public Health Assessment-Related Activities

One of ATSDR's important mandates is to conduct **public health assessments** of all National Priorities List (NPL) sites and of other sites where a significant threat to public health might exist. A public health assessment is a written, comprehensive evaluation of available data and information about the release of hazardous substances into the environment in a specific

geographic area. Such releases are assessed for past, current, or future impact on public health. ATSDR, in collaboration with public health and environmental officials from the **District of Columbia**, has conducted **two** public health assessments in the District.

ATSDR has conducted two public health assessments and 18 health consultations in the District of Columbia.

- **Washington Navy Yard**—The Washington Navy Yard is an active military facility on approximately 60 acres along the Anacostia River in southeastern **Washington, DC**. The facility has supported shipbuilding, ordnance research and production, and administrative duties for 200 years. Past activities have contaminated groundwater underlying the property and contributed to contamination in fish from the **Anacostia River**. Primary contaminants of concern at the site are metals, polychlorinated biphenyls, and dioxins.

ATSDR reviewed and evaluated groundwater data, surface water and sediment quality data, and on-site soil data. ATSDR concluded that groundwater, surface water, and sediment at the site do not pose public health hazards. However, past exposure to on-site surface soil at homes on Admiral's Row had the potential to cause adverse health effects in children. ATSDR also concluded that consumption of locally caught fish near the facility could pose a public health hazard. The Navy will continue to create and enforce land-use controls to ensure the public is not exposed to any contaminated areas unfit for residential use.

- **River Terrace Community**—The **River Terrace** community is located near a power plant in **Northeast Washington, DC**. In August 2001, the **District of Columbia Department of Health (DC DOH)** petitioned ATSDR to investigate whether the nearby power plant poses a public health risk to the community. Residents expressed concern about the occurrence of asthma, chronic

bronchitis, shortness of breath, hacking coughs, lung disease, and cancer in their community. Community members believe these health ailments are related to exposure to air pollutants from nearby facilities.

ATSDR evaluated air contaminant data gathered from the U.S. Environmental Protection Agency (EPA) Aerometric Information Retrieval System, a computer-based repository for information about U.S. air pollution. Ambient air monitoring data are available for criteria pollutants (carbon monoxide, ozone, particulate matter, sulfate, and sulfur dioxide) from two air monitoring stations in and near River Terrace. Although the levels of some air pollutants have been elevated at River Terrace, those levels are similar to levels in any urban area, including the general District of Columbia metropolitan area.

ATSDR evaluated maximum contaminant levels detected in River Terrace air and available data on levels known to cause adverse health effects in animals and humans. The agency concluded that exposure to the air would not be expected to harm healthy River Terrace residents. However, the maximum levels of ozone, sulfate, and particulate matter may aggravate preexisting respiratory diseases such as asthma, emphysema, and chronic bronchitis.

In a public health assessment released for public comment in March 2004, ATSDR classified the site as an indeterminate public health hazard because insufficient data exist to evaluate potentially increased rates of respiratory effects or cancer. In July 2004, ATSDR hosted two public information sessions to update the community and share health-related information from partnering organizations such as DC DOH, **the Mid-Atlantic Center for Children's Health and the Environment (MACCHE)**, and the **Metropolitan Council of Governments/Clean Air Partners**.

ATSDR's recommendations included continuing to sample criteria pollutants in ambient air in River Terrace, sampling additional pollutants in ambient air, and collecting health outcome data on respiratory ailments and cancer in River Terrace. EPA has proposed plans to conduct air sampling as part of its investigation into the nearby power plant, and ATSDR will evaluate data from this sampling. ATSDR also recommended promoting community

awareness about air pollution in River Terrace; the agency will work in cooperation with other stakeholders to do so.

A **health consultation** is a written or oral response from ATSDR to a specific request for information about health risks related to a specific site, chemical release, or hazardous material. A health consultation is a more limited response than a public health assessment. In the **District of Columbia**, 18 health consultations have been conducted at nine sites, including the following recent examples.

- **Spring Valley (American University)**—During World War I, the U.S. Army conducted chemical warfare research on and near **American University**. Chemical weapons were periodically detonated in the area for research and training purposes. Those materials have since degraded and are no longer found in soil; however, some arsenic contamination remains. Chemical agents and unexploded ordnance were also buried in the area, which is now known as the **Spring Valley** neighborhood.

The contaminants of concern at this site are arsenic, mustard gas, and other chemical warfare agents. The pathways of concern are soil ingestion, dust inhalation, and vegetable gardening. ATSDR provided consultation on a number of concerns about hazardous substances and potential human health effects that might be associated with exposure to those substances. The U.S. Army Corps of Engineers, which is responsible for clean-up activities at this site, is conducting soil sampling.

Because of concerns about potential soil contamination, the Army collected soil samples from the playground of the **American University Child Development Center**. ATSDR reviewed the results of the arsenic analysis and found arsenic at levels that could be of concern if children purposely swallowed as much as a handful of dirt. The Army has since collected additional samples and the results indicated elevated levels of arsenic in the soil. The center moved to another facility until the affected playground soil was removed and replaced.

In December 2003, ATSDR released a health consultation that reviewed indoor air and soil-gas sampling data to determine whether exposure to chemical substances detected in indoor air posed an immediate or long-term health hazard to residents of a home at 4625 Rockwood Parkway. The house was

occupied at the time of sampling but unoccupied when ATSDR received the data. The building occupants lived in the house for less than 1 year. The property remains vacant with the potential for the university to lease it to another tenant.

ATSDR concluded that low levels of volatile and semivolatile substances in indoor air at the home pose no apparent public health hazard to adult or child occupants. ATSDR recommended conducting further confirmatory sampling at the property, the first phase focusing on deep and shallow soil gas. If results indicate, further indoor air sampling should be conducted.

An ATSDR Web page summarizing the agency's activities at the Spring Valley/American University site is available at www.atsdr.cdc.gov/sites/springvalley.

- **Chillum Gasoline/Perchloroethylene (PCE)**—The Chillum site is near Chillum, Maryland, on the border of Maryland and the **District of Columbia**. The sources of contamination are in Maryland and the affected community is in the **Lamond-Riggs Park** community in the District of Columbia. Groundwater plumes of gasoline and PCE have been detected beneath the homes in this area. The gasoline plume came from a service station at the intersection of Riggs Road and Eastern Avenue in Chillum. EPA is investigating the source of the PCE plume.

Since 1989, gasoline has leaked or has been released into the ground from the service station. Several federal and state government agencies have conducted investigation, remediation, and assessment activities at the site since 1990. The primary route of human exposure at the site is inhalation of indoor air potentially contaminated through vapor intrusion. Vapor intrusion occurs when vapors move up through the soil and into nearby buildings.

For a health consultation released in January 2004, ATSDR reviewed active soil-gas data collected in 2002 and initial indoor air data collected in April 2003. The soil-gas data showed that PCE and gasoline constituents—benzene, toluene, xylene, ethylbenzene, and methyl tertiary butyl ether (MTBE)—were present. Five residences have PCE soil vapor concentrations at levels high enough to be a low theoretical increased risk for cancer.

Soil-vapor concentrations of benzene and MTBE were below levels associated with any appreciable risk for adverse health effects from subsurface vapor intrusion into residences. In the initial indoor air samples, six volatile organic compounds were detected at very low levels. Additional indoor air sampling is needed to better characterize the exposure and extent of vapor intrusion.

ATSDR classified this site as an indeterminate public health hazard because of limited indoor air data and a lack of environmental data for potentially affected locations, such as the church in the area.

ATSDR is preparing a second health consultation to review additional indoor air data collected by EPA on the basis of ATSDR's recommendations in the first health consultation for this site.

- **Kenilworth Park Landfill**—ATSDR is early in the process of developing a health consultation for the **Kenilworth Park** landfill.

An **exposure investigation** collects information about specific human exposures through biologic sampling, personal monitoring, related environmental assessment, and exposure-dose reconstruction. Following is an example of an exposure investigation conducted in the **District of Columbia**.

- **Spring Valley (American University)**—In February 2001, ATSDR conducted an exposure investigation for children and staff in a day-care center on the **American University** campus. ATSDR tested hair from 33 children and staff for arsenic. Results indicated that hair arsenic levels were within normal levels.

In March 2002, ATSDR conducted an exposure investigation for **Spring Valley** residents whose properties had high levels of arsenic in soil. Arsenic levels in residents' hair and urine were in the range of the general population; these levels are not expected to cause any health problems.

In June 2003, ATSDR conducted a third exposure investigation using urine screening only. This exposure investigation included individuals who participated in the first phase of the exposure investigation; who were living on, or adjacent to, property that was being remediated; or who had a single elevated level of arsenic in their yard. This exposure investigation assessed whether current exposure to arsenic is occurring when residents are

engaged in activities that would expose them to the soil (gardening, lawn care, and recreational use of their properties). Overall, urine arsenic testing showed no significant arsenic exposure in the population. Three individuals had slight elevations in their urine inorganic arsenic levels, but these levels are not expected to cause health problems.

ATSDR recommended that individuals with mild elevations of inorganic arsenic should have follow-up urinalysis for arsenic. ATSDR recommended that all tested individuals discuss their results with their personal health care providers.

Health Education and Community Activities

As part of its ongoing outreach activities in affected communities, ATSDR proactively involves communities in identifying their health concerns and developing actions to address those concerns. Educational activities at the Spring Valley site have focused on local residents' concerns associated with exposure to arsenic. A site-specific Web page (www.atsdr.cdc.gov/sites/springvalley) has been developed to provide local residents with an in-depth repository of information. A brochure titled "Safe Gardening, Safe Play, Safe Home" addressing residents' concerns about their homes and neighborhoods has been distributed to residents on the ATSDR mailing list.

In September 2002, the First Annual Conference on Children's Health and the Environment was held at **George Washington University**. The **George Washington University Medical Center (GWUMC)**, **Children's National Medical Center**, and **MACCHE** jointly sponsored the conference. Participants learned how to recognize the clinical impact of environmental toxicants on children's health, describe a variety of approaches to management and interventions regarding environmental health problems in children, identify resources available to investigate and manage environmental health problems in children, and recognize the impact of particular settings and environments on children's health. The second conference is planned for September 2004.

Association of Occupational and Environmental Clinics

The Association of Occupational and Environmental Clinics (AOEC), with national headquarters in the **District of Columbia**, is a network of 65 clinics and approximately 300 individual health professionals.

AOEC plays a key role in assisting local health care providers and community members respond effectively to health concerns associated with hazardous waste sites and unplanned releases of hazardous materials. Through a national cooperative agreement, AOEC and ATSDR work together to conduct site-specific health promotion and medical education activities.

Pediatric Environmental Health Specialty Units (PEHSUs)

Since 1998, ATSDR has provided funds to AOEC to support a project establishing PEHSUs as a national resource for pediatricians, other health care providers, federal staff, and the public. The PEHSUs develop materials and present training to health professionals and public health officials on environmental health issues and their impact on children's health. MACCHE provides services throughout EPA's Region 3. Established in October 2000, MACCHE's key focus is medical education and training, telephone consultation, and clinical specialty referral for children who may have been exposed to environmental hazards. MACCHE is a project of **GWUMC** and the **Children's National Medical Center**, and includes collaboration between the **GWUMC Division of Occupational Medicine and Toxicology** and the **Department of Pediatrics**. MACCHE has also assembled a team that includes the **Howard University College of Nursing** and faculty from the **University of Maryland School of Medicine** and the **Medical College of Pennsylvania**.

In winter 2003–2004, MACCHE played a key role in providing information to residents and health care providers about potential lead contamination in the **District's** drinking water. MACCHE fielded calls from concerned citizens, attended community meetings, and met with **DC DOH** to help provide information to the approximately 23,000 residents whose homes received water through lead pipes. A timely fact sheet targeted to residents addressed safe water lead levels, identified groups at risk, and made recommendations about blood lead testing and possible behavioral changes to minimize risk. In addition, MACCHE's co-director twice delivered testimony before the **DC City Council** about lead poisoning.

For more information, contact ATSDR toll-free at 1-888-42ATSDR (1-888-422-8737) or visit the ATSDR Web site at www.atsdr.cdc.gov.