



# Activities in West Virginia



## ATSDR in Partnership With West Virginia

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 an annual budget for 2003 of approximately \$82 million. ATSDR is responsible for assessing the presence and nature of health hazards at specific Superfund sites, helping to prevent or reduce further exposure and illnesses resulting from those hazards, and expanding 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. ATSDR provides funding and technical assistance to states and other partners through cooperative agreements and grants 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. From **fiscal years 2001 through 2003**, ATSDR awarded more than **\$594,000** in direct funds and services to **West Virginia** for comprehensive support of its environmental health unit. In addition to direct funds and services, ATSDR staff provides technical and administrative guidance for state-conducted site activities.

## ATSDR Site-Specific Activities Public Health Assessment-Related Activities

One of the agency'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. **Eleven** sites have been designated to the NPL in **West Virginia**.

A **public health assessment** is a written, comprehensive evaluation of available data and information on the release of hazardous substances into the environment in a specific geographic area. Such releases are assessed for current or future impact on public health. ATSDR, in collaboration with public health and environmental officials from **West Virginia**, has conducted **13** health assessments in the state, including the following recent examples.

- **Vienna Tetrachloroethene (PCE)**—This site is near the **Vienna** City Hall and surrounded by private businesses and single-family dwellings. Former waste disposal practices at an on-site dry-cleaning facility resulted in PCE and trichloroethene (TCE) contamination of 4 of the town's 12 municipal drinking water wells. These wells provided drinking water for more than 14,500 people. In June 1992, the city discontinued use of the four contaminated wells. The U.S. Environmental Protection Agency (EPA) used emergency funds to build two new municipal wells that were brought on-line in March 1997.

The initial public health assessment for this site was published in August 2000. Public comments on the assessment were published in November 2000, and the final report was released in February 2001. On the basis of applicable data and observations, ATSDR categorized the site as a public health hazard.

The data showed that individuals living near the site were likely exposed to low levels of PCE and TCE from soil and groundwater contamination. In addition, if the groundwater plume expands to reach the municipal water wells in use, residents near the site could be further exposed to PCE and TCE at levels that could cause adverse health effects. Therefore, ATSDR's assessment

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recommended continued characterization and remediation of the groundwater plume. EPA has now completed its remedial investigation/feasibility study for this site, and recently issued a proposed remedy.

- **Big John Salvage/Hoult Road**—The Big John Salvage/Hoult Road site is an abandoned salvage facility in Fairmont. The site is in a mixed industrial/residential area of Fairmont. This unoccupied site was used for many years as a coal tar manufacturing facility. In 1973, the property was sold to Big John Salvage. The Big John Salvage facility was a metal, glass, and oil salvaging operation until it closed around 1985.

Wastes generated when the facilities were in operation have contaminated on-site soils, sediments, and surface waters. Sampling results indicate that hazardous substances from the site are migrating off-site to the nearby Monongahela River. The waste that is known to have contaminated the site is coal tar waste.

This site was proposed for inclusion on the NPL in 2000. As mandated by Congress, ATSDR prepared an initial health assessment for the site. ATSDR staff reviewed and evaluated all available data pertaining to the site and presented that information in an initial health assessment. The health assessment evaluates whether exposure to site-related contaminants is occurring and whether health effects could result from exposures.

The health assessment concluded that the site does not currently pose a public health hazard, primarily because the facility is no longer in operation and because access to the site has been restricted by new fencing. Remedial activities scheduled for the site should eliminate any future on-site exposure pathways and future concern for off-site migration of contaminants. ATSDR is recommending that additional data on potential exposure pathways be collected. Potential pathways include residents living near the site and persons using the Monongahela River for recreational or food-gathering purposes.

ATSDR's cooperative agreement partners at the **West Virginia Bureau for Public Health (WV BPH)** are updating this initial health assessment and plan to release a public comment version of the document this fiscal year.

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. It is a more limited response than a public health assessment is. To date, **66** documented health consultations have been conducted at **35** sites in **West Virginia**, including the following recent examples.

- **Williamson Area**—In response to the petition of a resident of the **Lick Creek** community, WVDHHR evaluated possible exposures to hazardous chemicals in the unincorporated communities of Lick Creek, **Rawl**, **Merrimac**, and **Sprigg**, near **Williamson**. The petitioner alleged that the residents in this area have been and are being exposed to toxic chemicals from the old Williamson Landfill, the Norfolk Southern Railroad railcar clean-out area, and coal mining activities from Rawl Sales and Processing. The petitioner claimed that all these activities have contaminated the environment in these communities. The petitioner supplied photographs to ATSDR illustrating several of the concerns. The petitioner alleged that cancer and tumors of all types, respiratory problems, and Alzheimer's disease are being caused by exposure to chemicals from these sites. A health consultation released for public comment in September 2003 evaluated whether local residents have been, are being, or might be exposed to contaminants in the future from these facilities in concentrations that could cause adverse health effects.

The health consultation categorized these sites as no public health hazard. The exposure pathways from these sites were not likely to be the source of chemical exposures that could cause adverse health effects for the past, present, and future.

- **Marion County Landfill**—The Marion County (**Idamay**) Landfill, south of **Farmington**, is an inactive sanitary landfill and former property used by the Bethlehem Mines Corporation. In response to the petition of a resident of the nearby Idamay community, the **West Virginia Department of Health and Human Resources (WVDHHR)** evaluated available Marion County Landfill site information to determine whether exposure to contaminated site media is occurring, has occurred in the past, and whether a health threat is present. The petitioner was concerned about the incidence

of multiple sclerosis, aneurisms, and various forms of cancer in the Idamay community.

In a health consultation released in August 2003, WVDHHR and ATSDR concluded that the Marion County Landfill site poses no public health hazard for past, present, or future residential groundwater/surface water use scenarios.

According to the **West Virginia Cancer Registry**, cancer incidence in the Idamay Community between 1993 and 2001 appears to be consistent with what would be expected.

The cancers observed are of the types usually seen in West Virginia.

- **Kanawha Motive Power Site**—At EPA's request, ATSDR conducted a health consultation on the Kanawha Motive Power site (a former mining battery repair business) in April 1999. The health consultation classified the site as a public health hazard, particularly to young children, on the basis of soil lead levels. The objectives of a follow-up health consultation released in December 2000 were to identify those children and at-risk persons potentially exposed to lead in soil at the site who would benefit from screening, and to ensure that these persons receive the services they need.

The 2000 health consultation concluded that the site had been remediated by EPA to a clean-up level that is protective of public health for residential use of the property. Under current conditions, exposures are not at levels expected to cause adverse human health effects.

The **West Virginia Bureau for Public Health Childhood Lead Poisoning Prevention Program** has implemented a comprehensive public health action plan for blood-lead-level screening and surveillance of children and pregnant women at the site.

A **public health advisory** is a statement of findings by ATSDR that a substance released into the environment

poses a significant risk to human health. It includes recommended measures to reduce human exposure and eliminate, or substantially mitigate, the significant risk. The advisory is issued to the U.S. Environmental Protection Agency (EPA) to inform state and local

officials and the public about recommended actions. Following is an example of such an advisory in West Virginia.

- **West Virginia Ordnance Works**—In 1994, ATSDR issued a public health advisory at this NPL site in **Mason County** after determining that asbestos and physical hazards at the site were an imminent public health hazard. From 1942 to 1945, the ordnance works



*Fish advisory sign posted along the Kanawha River.*

manufactured trinitrotoluene explosives (TNT). After operations ceased in 1945, the facilities were salvaged or disposed of by the U.S. government.

ATSDR found site-related human exposures to friable, asbestos-containing material and various physical hazards at and near the site. The public health advisory outlined risk management procedures to eliminate the public health hazards. The U.S. Army Corps of Engineers, EPA, state of West Virginia, and Mason County implemented these risk management procedures. By 1995, approximately 200 cubic yards of asbestos-contaminated material was removed. These swift actions eliminated the imminent public health hazards identified in the public health advisory.

An **exposure investigation** collects information on 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 West Virginia.

- **Spelter**—In 1996, ATSDR, in conjunction with the **West Virginia Bureau of Public Health** and the **Harrison-Clarksburg Health Department**, conducted blood-lead testing of 25 children living in the town of **Spelter**. This investigation was initiated because high levels of lead were detected in tailings piles located around a former

zinc smelter in the town. Blood-lead testing focused on children aged 6 months to 6 years, but any resident up to 16 years of age was eligible to participate. Only one child had an elevated blood-lead level, and that level was only slightly elevated. The results helped relieve the residents' concerns about adverse health effects. Because the percentages of blood-lead levels in the tests were normal, consideration of emergency removal activities at the tailings piles was not warranted.

### Health Education and Community Activities

West Virginia has only been a participant in ATSDR's cooperative agreement program since 2001. Under this program, the **West Virginia Department of Health and Human Resources** has received funding and technical assistance for the development of community education and activities associated with human exposure to hazardous substances in the environment. During FY 2003, educational materials were developed in support of environmental health needs assessments and town meetings in support of the FIBAIR, Inc. and Marion County Landfill sites.

In November 2003, ATSDR collaborated with EPA's Superfund program, **WV BPH, West Virginia Department of Environmental Protection (WV DEP), West Virginia Department of Natural Resources, and the Heizer Manila Watershed Organization** to ensure that permanent signs advertising the state's fish consumption advisory were posted at 11 locations along the Kanawha River from Dunbar to Point Pleasant. The signs advise anglers not to eat carp, catfish, suckers, and hybrid striped bass. All other fish should be eaten at only one meal per month.

The reason for the advisories is that EPA and WV DEP found dioxin in the tissue of a wide range of fish in the Lower Kanawha and related waterways in the region. The levels of dioxin could be harmful to sensitive people if they eat too much fish. The signs were posted at public access points where anglers might access the river, and were an outgrowth of ATSDR's previous health consultation and health education work in the community.

## Association of Occupational and Environmental Clinics

Through a national cooperative agreement with the Association of Occupational and Environmental Clinics (AOEC), ATSDR supports **two** occupational and environmental health programs in **West Virginia**. This support is provided to improve education and communication related to surveillance, diagnosis, treatment, and prevention of illness or injury related to exposure to hazardous substances. The two member institutions in West Virginia are the **Marshall University School of Medicine (Huntington)** and the **Institute of Occupational and Environmental Health, West Virginia University School of Medicine (Morgantown)**. The Marshall University program focuses on issues associated with the railroad, nickel alloy, steel mine, coal mine, and chemical and gas-manufacturing industries. The West Virginia University program focuses on environmental diagnoses associated with lead exposure, etiologic evaluation, and respiratory disease.

### Resource Materials

ATSDR develops materials that public health professionals and medical care providers can use to assess the public health impacts of chemical exposures. Resources are available in print, on the ATSDR Web site, and on CD-ROM. For example, medical management guidelines are available for acute chemical exposures to more than 40 chemicals. ATSDR's toxicological profiles comprehensively describe health effects; pathways of human exposure; and the behavior of more than 250 hazardous substances in air, soil, and water at hazardous waste sites. In the last 5 years, more than **12,200** of these profiles have been sent to requesters, including representatives of federal, state, and local health and environmental departments; academic institutions; private industries; and nonprofit organizations in **West Virginia**. ATSDR has also developed extensive resources for community members.

**For more information, contact ATSDR toll-free at 1-888-42ATSDR (1-888-422-8737) or visit the ATSDR Web page at [www.atsdr.cdc.gov](http://www.atsdr.cdc.gov).**