

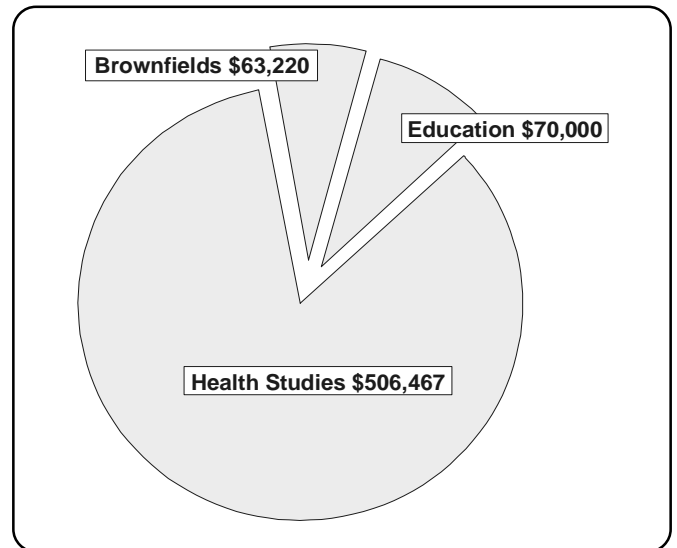


Activities in Rhode Island

ATSDR in Partnership with Rhode Island

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 400 employees. ATSDR's annual budget for 2003 is 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 that result, and expanding the knowledge base about the health effects of exposure to hazardous substances.

ATSDR works closely with, and provides funding and technical assistance to, state agencies to identify and evaluate environmental health threats to communities. From **1990 through 2001**, ATSDR awarded more than **\$639,687** in direct funds and services to the state of **Rhode Island**. 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 there might be a significant threat to the public health. There have been **13** sites delegated to the NPL in **Rhode Island**.

A **public health assessment** provides 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. In collaboration with public health and environmental officials from **Rhode Island**, ATSDR staff has conducted **13** public health assessments in the state. Below are two examples of public health assessments conducted in the state.

Pascoag Water Utility District – In September 2001, methyl tertiary-butyl ether (MTBE), a gasoline additive, was discovered in the distribution system of the **Pascoag Water Utility District**. Subsequent investigation revealed the MTBE was present in shallow groundwater as a result of leaks from a local gas station and had been recently drawn into the water supply when a new drinking water well went into operation in June 2001. ATSDR supported the **Rhode Island Department of Health (RIDOH)** in the initial site response, providing technical review and assisting with community risk communication. An interim treatment system was installed on the impacted well in November 2001, and a new water source replaced the impacted wells in January 2002.

U.S. Senator Jack Reed petitioned ATSDR to conduct a public health assessment for the Pascoag Water Utility System and **Burrillville** groundwater contamination. ATSDR conducted a preliminary review of environmental data and conducted a site visit in March 2002. At that time, ATSDR held a public meeting and public availability sessions to gather information and answer residents' concerns regarding their exposure to MTBE. ATSDR is currently preparing a public health assessment which will review available environmental contamination data and evaluate the nature and duration of MTBE exposure among residents in Burrillville. The public health assessment will define the exposure pathway, route of exposure, and potential public health implications from those exposures.

Davisville Naval Construction Battalion Center – The Naval Construction Battalion Center (NCBC) is a decommissioned military installation located in **North Kingston** and **East Greenwich, Rhode Island**. The site once occupied more than 1,200 acres and activities began in 1942. It was primarily used as a training facility for construction operations and as an area for construction material storage and freight yards. In 1989, NCBC, Davisville was added to the NPL because of contamination at Calf Pasture Point and Allen Harbor Landfill. At the request of the Navy, ATSDR visited Allen Harbor Landfill in 1994 to determine whether it was safe for future use by non-defense organizations. In 1995, ATSDR released a health consultation for the site which recommended consumption restrictions for shellfish in Allen Harbor. ATSDR conducted subsequent visits in 1998 and 1999 when it identified no immediate public health hazards.

ATSDR reviewed and evaluated groundwater, surface soil, and surface water and sediment data for the site. ATSDR concluded that none of these poses a public health hazard. ATSDR also reviewed data from the 1990s on chemical contaminants in shellfish collected from Allen Harbor and Narragansett Bay. The data indicate shellfish in these areas have accumulated elevated levels of contaminants, including polychlorinated biphenyls, polycyclic aromatic hydrocarbons, pesticides, and metals. ATSDR concluded that shellfish contamination from NCBC, Davisville posed a public health hazard prior to 1984, when the **Rhode Island Department of Environmental Management (RIDEM)** instituted a shellfishing ban in Allen Harbor due to bacteriological contamination. ATSDR supports the shellfishing ban for Allen Harbor.

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. To date, **58** documented health consultations have been conducted at **28** sites in **Rhode Island**. Some examples of these health consultations follow.

Old Fire Fighter Training Area, Katy Field, Naval Station Newport - In June 1998, the U.S. Environmental Protection Agency (EPA) requested that ATSDR review soil data at the Katy Field site. The concern arose because the area was used extensively by adults and children playing there and at the adjoining Youth Center. In order to determine the overall safety of Katy Field, ATSDR reviewed data collected by U.S. Navy contractors and EPA staff pertaining to surface soil, subsurface soil, sediments, surface water, groundwater, and shellfish. After a review of all the data collected, ATSDR confirmed that levels of chemicals in the surface soil and sediments did not present a health hazard to children or adults. The results of ATSDR's detailed analysis were reported in a health consultation released in March 1999.

In November 1998 and January 1999, staff from ATSDR, Navy, EPA, the **Rhode Island Department of Environmental Management**, and the **Rhode Island Department of Health**, participated in town meetings with U.S. Representative Patrick Kennedy to discuss health concerns about exposures at Katy Field.

Central Landfill - Central Landfill is located in a residential-commercial area of **Johnston**. A portion of the landfill is a Superfund site with solvents and other industrial wastes contaminating the ground water. Overlying this waste is a landfill that services at least 85% of **Rhode Island's** municipal-commercial waste stream. Beginning January 1999, the number of odor complaints to the RIDEM's telephone hotline has increased markedly, and nearby residents report a high incidence of asthma and other respiratory complaints, among other illnesses. A substantial number of reported odor events were deemed as meeting the legal criteria as "objectionable." These odors arose from the municipal waste and not the Superfund site. Samples of air at the landfill were analyzed and RIDEM asked ATSDR to review their assessment of the public health impact. In a health consultation, ATSDR concurred with the state assessment that the measured chemicals were unlikely to have an adverse

health impact, but recommended testing for additional chemicals. ATSDR conducted an exposure investigation for hydrogen sulfide, and RIDEM began analyzing for sulfur and nitrogen oxides and low-molecular weight aldehydes in April 2001. ATSDR reported the findings of the exposure investigation in a health consultation released in November of 2002. The levels of hydrogen sulfide, nitrogen dioxide and aldehydes were well below health-based action levels. The levels of sulfur dioxide measured were below levels expected to cause adverse health effects.

Dry Bridge Landfill (Hometown Properties) - The Dry Bridge Road Construction and Demolition Landfill facility is located in a rural, suburban area of **North Kingston**. The landfill is surrounded by residences, a gravel pit, and light industrial properties, including a trucking company. The landfill is active and covers approximately 20 acres of land in the Annaquatucket River drainage basin in the southeastern part of the state. It has been owned and operated by Hometown Properties, Incorporated, since 1980. Vehicular access to the site has always been restricted. Since 1994 a chain link fence and a 24-hour security guard service have restricted pedestrian access to the site. It is known or alleged that waste materials, including construction and demolition debris; railroad ties; shredded automobile components; and friable asbestos, have been deposited at the site.

In 1997, **Rhode Island** State Representative Kenneth Carter and U.S. Representative Bob Weygand petitioned ATSDR to evaluate the potential public health impact of the landfill. ATSDR staff completed a public health consultation at the site in June 1998. The health impact of the landfill was evaluated by examining air and ground-water pathways near the site. Based on analysis of the data provided by this consultation, air; soil; and water pathways posed no apparent present or future health hazard. Due to the absence of earlier sampling data, prior exposures could not be determined.

Woonasquatucket River and Centredale Manor - Woonasquatucket River begins in the hills near North Smithfield and empties into the Providence River. The Smithfield wastewater treatment plant discharges into the river and storm water runoff, combined sewer overflows, and discharges from industries along the river contribute to chemical and bacteriological contamination of the river. The Centredale Manor, the Lee Romano Ballfield, the North Providence Boys and Girls Club, and the Early Years Learning Center are located on the river.

The EPA asked ATSDR to review environmental data for the Woonasquatucket River to determine if contamination poses a public health hazard. In addition, the **Public Employees for Environmental Responsibility (PEER)** petitioned ATSDR to assess the public health impact of dioxin contamination in and along the river. The results of the health consultation released on May 13, 1999, include the following: (1) Limited sampling of fish from the lower part of the river indicates the presence of dioxin and other contaminants at levels of health concern; a fish advisory was put in place for the river in 1996. (2) Microbiological contamination in the river poses a potential health hazard for recreational use. (3) Concentrations of dioxin and other contaminants detected in sediment from the river do not pose a health hazard. (4) Concentrations of dioxin detected in surface soils from the Lee Romano Ballfield, the North Providence Boys and Girls Club, and the Early Years Learning Center do not pose a public health hazard. (5) Elevated levels of dioxin were detected in surface soil/sediment from areas around Centredale Manor. Occasional contact with these areas would not pose a significant health risk. (6) Testing of drinking water wells near Centredale Manor did not detect dioxin.

Brownfields Initiative

In 1997, 17 federal agencies, including ATSDR, collaborated to form the **Brownfields National Partnership** to assist local remediation and redevelopment. Brownfields are abandoned, idled, or underused industrial and commercial properties where expansion or redevelopment is complicated by real or perceived contamination. The federal agencies participating in the Brownfields National Partnership will offer special technical, financial, and other assistance to selected communities -- **Brownfields Showcase Communities** -- to demonstrate the benefits of focused, coordinated attention on brownfields. The Brownfields National Partnership selected **Rhode Island/Providence** as a Showcase Community. **Rhode Island's** Woonasquatucket River Greenway project is an urban revitalization effort to restore greenspace and stimulate economic investment along the river.

In 1998, ATSDR entered into cooperative agreements with local health departments in six Showcase Communities. The RIDOH was awarded an additional grant by ATSDR to enhance their participation in brownfields decisions and actions. The grant funded the development of a low-barrier, community-focused educational tool to provide information on brownfields and opportunities for community involvement in the process. This information was published, made available on the Internet, and served as the basis of several brownfields community training sessions in Providence. The purpose of these programs is to help local health departments develop and implement strategies that ensure remediation and redevelopment efforts will not present environmental public health hazards to the communities.

Association of Occupational and Environmental Clinics

ATSDR provides financial and technical support to members of the Association of Occupational and Environmental Clinics (AOEC) to improve education and communication related to surveillance, diagnosis, treatment, and prevention of illness or injury related to exposure to hazardous substances. **The Occupational and Environmental Health Center, Providence**, is the AOEC member institution in the state.

Health Studies

Health studies are conducted to determine the relationship between exposure to hazardous substances and adverse health effects. They also define health problems that require further investigation through mechanisms such as a health surveillance or epidemiologic study. Following is an example of a health study being conducted in **Rhode Island**.

Hazardous Substances Emergency Events Surveillance (HSEES) System - The Hazardous Substances Emergency Events Surveillance (HSEES) system was established by ATSDR in 1990 to collect and analyze information about releases of hazardous substances that require remediation according to federal, state, or local law, as well as threatened releases that result in a public health action, such as an evacuation. The goal of HSEES is to reduce the morbidity and mortality experienced by first responders, employees, and the general public, resulting from hazardous substances emergencies. A total of 16 state health departments (including **Rhode Island**) were awarded cooperative agreements to accomplish these activities. HSEES captures data on more than 5,000 events annually. The HSEES system generates information for states to use for the following activities: (1) conduct presentations to plan prevention strategies to industries (such as agriculture) that account for a significant number of spills, (2) conduct Hazardous Materials (HazMat) training courses, including data on the risk of injury from methamphetamine labs, (3) establish and maintain protection areas for municipal water systems, (4) assist with the proper placement of HazMat teams, (5) develop fact sheets on frequently spilled chemicals or chemicals (such as chlorine and ammonia) that cause a disproportionate number of injuries, (6) develop newsletters to industry and responder and environmental groups, and (7) conduct presentations for state and local emergency planners.

Toxicological Profiles

ATSDR develops **toxicological profiles** that describe health effects, environmental characteristics, and other information for substances found at NPL sites. These profiles also describe pathways of human exposure and the behavior of toxic substances in environmental media such as air, soil, and water. In the past 5 years a number of these toxicological 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 **Rhode Island**.

If you would like additional information, contact ATSDR toll-free at (888) 42ATSDR, that is, (888) 422-8737 or visit the homepage at <http://www.atsdr.cdc.gov>
