

Questions & Answers – Dioxins in the Woonasquatucket River



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EPA, Rhode Island Department of Health, and members of the Urban Rivers Team (a coalition of federal, state and local agencies, non-profit groups, environmental advocates and local and state public officials) are working to address dioxin contamination in and around the Woonasquatucket River in North Providence. Government environmental and health experts offer the following advice and answers to your questions about the recent discovery of dioxin along the riverbank and in the river sediments. EPA has established a hotline with trained professionals available to answer your questions. Call either 401-231-9393 or toll free 1-888-372-7341.

What is Dioxin?

Dioxins are an extremely toxic group of man-made chemicals that are unintentionally produced through a number of industrial activities. Dioxins which are released into the environment remain there for very long periods of time and can be cycled from air to soil to plants to animals to humans. Dioxins have been found throughout the world in practically every media, including air, soil, water, sediment, fish and shellfish and other food products such as meat and dairy products. Most people are exposed to very small levels of dioxin when they breathe air or consume food, milk or beverages, or come into contact with materials containing dioxins. As a result, dioxins are present in body tissue of all humans. For the general population, more than 90% of the daily intake of dioxins comes from dietary products containing dioxin.

What are the health effects of dioxins?

Health effects from dioxins are chronic effects, meaning they could occur as a result of long-term repeated exposure. One meal of fish or one day of wading will not result in significant effects.

At high or repeated levels of exposure, dioxins are extremely potent chemicals which can produce a variety of effects in animals and humans. The EPA, Department of Health and Human Services, and the International Agency for Research on Cancer have concluded that dioxins can cause cancer in animals.

Where in the Woonasquatucket river basin have dioxins been found?

Dioxins have been found in the sediments of the Woonasquatucket River and in fish caught from the River. The highest levels have been found in fish caught in the river. Elevated levels have also been found behind the Allendale and Lymanville dams where sediments concentrate. Elevated levels of dioxins have been found in samples taken from the riverbank and soils near Centredale Manor and on the riverbank adjacent to Lee Romano Field.

How did dioxins found along the riverbanks end up in places like Centredale Manor and Lee Romano ball field?

Since dioxins tend to attach to particles of soil or sediment, any process that moves the soil or sediment can also move the attached dioxins. Sediments (with dioxins attached) can be carried by river water further downstream or up onto the river banks or floodplains. This is most likely to occur during a flood. When the floodwaters recede, the river sediments and attached dioxins can be left behind.

What can I do to protect myself and my family from exposure to dioxins?

The primary sources of exposure to dioxins is through consumption of contaminated fish and direct contact with contaminated sediments. Two steps for avoiding dioxin exposure are:

a. Do not eat fish from the river!

EPA and the Rhode Island Department of Health have had a fish consumption advisory in place on the Woonasquatucket River since October 1996. Fish and eels from the Woonasquatucket River are contaminated with dioxins and should not be eaten.

b. Avoid contaminated soil.

Do not wade or swim in the river or play along the riverbanks where dioxins have been found. Stay out of the areas clearly marked as contaminated with dioxin. If you do come into contact with contaminated soil, wash it off. Accidentally ingesting contaminated soil, through hand-to-mouth contact, could be harmful and should be avoided.

How long has EPA been actively involved in addressing contamination in the Woonasquatucket River?

In May 1996, upon first learning about people fishing in the Woonasquatucket River, EPA, in concert with community groups, environmental groups and state agencies, immediately launched an extensive investigation:

- May 1996-- EPA collected samples of eel and sunfish.
- October 1997-- EPA and the Rhode Island Department of Health issued a "Catch and Release" fish advisory. Warning signs were posted along the Woonasquatucket River.
- EPA collected sediment samples in October 1997 from seven dams along the river. Upon receiving validated data, EPA on July 2, 1998 issued a press release reminding the public to refrain from eating fish and to refrain from wading or swimming in the river.
- August 1998-- EPA produces "Do's and Don'ts for the Woonasquatucket River" brochure and holds public meeting for North Providence residents.
- September 1998-- EPA collected additional soil and sediment samples from the shoreline, focusing on areas where people were most likely to come into contact with the river.
- January 1999-- EPA received and publicly released preliminary results of the September sampling showing high dioxin levels in three locations in North Providence.

What is EPA doing to address the dioxin problem?

EPA has launched, in close coordination with the Rhode Island Department of Health, the Urban Rivers Team, and state and local political leaders, an aggressive Action Plan to address the issue:

- EPA has installed snow fencing and warning signs to prevent access to the sites at Centredale Manor and the Lee Romano Field. As a precaution, fencing was also installed at the Boys and Girls Club near Lee Romano Field.
- EPA has already begun additional sampling at the Centredale Manor, Lee Romano, and Boys and Girls Club properties. As a precaution, two private wells were also tested. A comprehensive plan for further sampling will be worked out in the next two weeks, in coordination with community and municipal leaders and state agencies.

- EPA will be forming a Management Committee for the site, made up of representatives from the community, the EPA, the Rhode Island Department of Health, and the R.I. Department of Environmental Management. The Management Committee will be participating in the design of sampling efforts.
- EPA and the federal Center for Disease Control's Agency for Toxic Substances and Disease Registry (ATSDR) will examine final validated data to see if it indicates a public health threat at any site. If a threat is identified, permanent fencing would be immediately installed and further remediation activities would be designed with the Management Committee and carried out. The earliest that remediation activities involving possible excavation could be carried out is in April after winter and spring flooding.
- EPA will continue its outreach program to inform residents about sampling results and what precautions they should take, including signs, public meetings and a hotline for residents.

Are there other problems in the Woonasquatucket River to be concerned about?

The Woonasquatucket may also have high bacteria levels, particularly after heavy rains, because city sewer pipes discharge wastes to the river. Health experts advise that boaters and kayakers shower after water sports to protect against illnesses that bacteria can cause. The Rhode Island Department of Health has an advisory against swimming, wading or drinking the river water. Thoroughly wash with soap and water after any direct contact with the water.

Is my tap water safe to drink? Yes.

The Woonasquatucket is not used for drinking water. Tap water for North Providence comes from the Scituate Reservoir. The Providence Water Supply Board has tested the drinking water for dioxins and found none.

How can I continue to get information?

EPA has established a Hotline with environmental and health professionals available to answer any questions community members may have. The hotline will be open Sunday 1/17 and Monday 1/18 from noon until 6pm, and during the week from 8am to 8pm. The Hotline numbers are: 401-231-9393 or toll free 1-888-372-7341.

