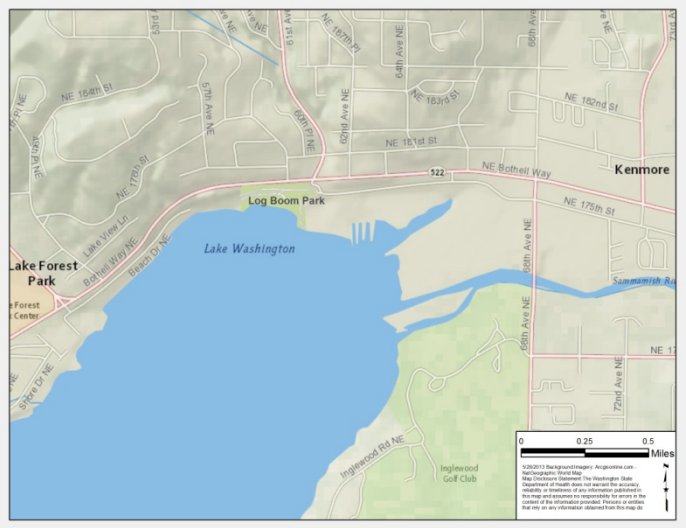
Kenmore Area of Lake Washington and Sammamish River, Evaluation of Contaminants

Health Consultation Fact Sheet, July 2013

The Washington State Department of Health completed a health consultation to address concerns raised by some members of the Kenmore community. They were concerned that swimmers and boaters were potentially being exposed to contaminated sediments and water around the north end of Lake Washington and near the mouth of the Sammamish River. Our evaluation showed that contact with the sediments or water is not expected to harm people's health. The full Kenmore report is available online at www.doh.wa.gov/consults.

Background



The City of Kenmore is located on the north end of Lake Washington. Historically, lumber shipping and log booming occurred in this area of the lake. The area is now used for a wide range of purposes including recreational marinas, commercial float plane operations, maritime operations, and concrete and asphalt batching. Residential and recreational properties (e.g. park and boat launch) are located there, too.

The Kenmore Industrial Park site is also located in the area. It is a 45-acre industrial property once used as a demolition debris landfill. There have been reports of hazardous waste being disposed of in the landfill; however, this has not been confirmed. Part of this property is currently being used to build parts for the State Route 520 Bridge Replacement Project.

Past sediment testing in the area showed the presence of dioxins/furans, polychlorinated biphenyls (PCBs), metals, and other contaminants. In 2012, more sediment testing was done by the City of Kenmore and the Washington State Department of Ecology; a limited number of surface and ground water samples were also tested.

Exposure Evaluation

In our evaluation, we looked at recent sediment test results from the public access areas at Kenmore at the north end of Lake Washington and near the mouth of the Sammamish River. These areas include Log Boom Park and the Washington Department of Fish and Wildlife motor boat launch located on the Sammamish River. We also looked at sediment samples from limited-access areas where it's harder for the public to come in contact with underwater sediments. These areas include the Kenmore Navigation Channel, Harbour Village Marina, and areas adjacent to the Kenmore Industrial Park. Surface water sample results from Lake Washington and groundwater data from the Kenmore Industrial Park were also evaluated.

When determining if exposure to a chemical will cause health effects in people, the following factors are considered:

- How much of the chemical you contact,
- How long you are in contact with it, and
- The type of contact you have with the chemical (touching, swallowing, or breathing in the chemical).

A person's age and the number of chemicals they are exposed to may also influence whether exposure will cause health effects.

To determine if a specific chemical might pose a possible health threat, it is compared to levels that are known to unlikely cause harm. These levels are called "health-based comparison values" and allow us to evaluate both potential non-cancer and cancer health effects. If the chemical is below its comparison value, it doesn't need further evaluation because it is not expected to be a problem. If a chemical is found at levels above its health-based comparison value, it does not mean people will be harmed if they're exposed. It does, however, tell us that further site-specific evaluation of that chemical is needed.

None of the chemicals found in groundwater or surface water were at levels high enough to need further evaluation.

Only two chemicals in sediments were found at levels that needed a site-specific evaluation: dioxins and polycyclic aromatic hydrocarbons (PAHs). For dioxins, only one location at Harbour Village Marina required further evaluation. The need for further evaluation of PAHs was identified at Log Boom Park, Harbour Village Marina, near the northeast boundary of the Kenmore Industrial Park property, and the Kenmore Navigation Channel.

Swimmer and boater contact with sediments at the park or other areas is considered to be seasonal. Exposure to sediments in these areas is not expected to cause non-cancer health effects. The estimated cancer risk associated with exposure to sediment is considered to be low to insignificant. However, the actual risks are likely less and could be as low as zero. To estimate the cancer risk from potential contact with chemicals in sediment, we looked at a lifetime exposure (72 to 78 years) using the maximum level of each chemical found. These assumptions are considered highly protective of public health.

Conclusions

- Touching, breathing, or accidentally eating sediment from the public access areas, Kenmore Navigation Channel, and Kenmore Industrial Park are not expected to harm people's health.
- Touching or accidentally swallowing groundwater coming from the Kenmore Industrial Park site or Lake Washington surface water tested by the City of Kenmore are not expected to harm people's health.

Resources

Health Consultation Report - www.doh.wa.gov/consults
Department of Ecology - https://fortress.wa.gov/ecy/gsp/Sitepage.aspx?csid=2134

For More Information

Washington State Department of Health, 1-877-485-7316

For persons with disabilities, this document is available in other formats upon request.
Please call 1-888-586-9427 (TTY/TDD 1-800-833-6388).