

Letter Health Consultation

Priest Point Park Beach Sediment
Olympia, Thurston County, Washington

June 10, 2011

Prepared by

**The Washington State Department of Health
Under a Cooperative Agreement with the
Agency for Toxic Substances and Disease Registry**



Letter Health Consultation

Foreword

The Washington State Department of Health (DOH) has prepared this health consultation in accordance with methodologies and guidelines developed by the Agency for Toxic Substances and Disease Registry (ATSDR). ATSDR is part of the U.S. Department of Health and Human Services and is the principal federal public health agency responsible for health issues related to hazardous waste sites and releases.

The purpose of this health consultation is to identify and prevent harmful human health effects resulting from exposure to hazardous substances in the environment. Health consultations focus on specific health issues so that DOH can respond to requests from concerned residents or agencies for health information on hazardous substances. DOH evaluates sampling data collected from a hazardous waste site, determines whether exposures have occurred or could occur, reports any potential harmful effects, and recommends actions to protect public health. The findings in this report are relevant to conditions at the site during the time of this health consultation and should not necessarily be relied upon if site conditions or land use changes in the future.

This report was supported by funds from a cooperative agreement with ATSDR. However, it has not been reviewed and cleared by ATSDR.

For additional information or questions regarding DOH or the contents of this health consultation, please call the health advisor:

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Office of Environmental Health Assessments
P.O. Box 47846
Olympia, WA 98504-7846
360-236-3376
1-877-485-7316
Website: <http://www.doh.wa.gov/consults>

For people with disabilities, this document is available on request in other formats. To submit a request, please call 1-800-525-0127 (TTY/TDD call 711).

For more information about ATSDR, contact the ATSDR Information Center at 1-888-422-8737 or visit the agency's Web site: www.atsdr.cdc.gov/.

LETTER HEALTH CONSULTATION

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DEPARTMENT OF HEALTH

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February 7, 2011

Patrick Soderberg
Thurston County Public Health and Social Services Department (TCHD)
412 Lilly Road NE
Olympia, Washington 98506

Dear Mr. Soderberg:

RE: Priest Point Park Beach Sediment

On November 5, 2010, you contacted the Washington State Department of Health (DOH), Agency for Toxic Substances and Disease Registry (ATSDR) Cooperative Agreement Program regarding potential human health effects from exposure to dioxins/furans (dioxins) in sediment at the Priest Point Park beach. DOH completed its review of the sediment dioxins data collected from Priest Point Park beach in October 2010. A summary of DOH's findings are included in this letter.

Background

Priest Point Park is operated by the City of Olympia. It is located along the East Bay of Budd Inlet in southern Puget Sound and has public beach access. This beach is within the closure area for a sewage treatment plant outfall. Therefore, it is listed by DOH Office of Shellfish and Water Protection as unsafe for recreational shellfish harvesting. In addition, the Thurston County Public Health and Social Services Department (TCHD) have advisory signs posted at Priest Point Park beach warning against fish and shellfish consumption, swimming, and wading in the area (Figure 1).

Previous sediment sampling results for Budd Inlet showed the sediment contained dioxin [1]. In 2008, DOH prepared a health consultation for Budd Inlet at the request of the Washington State Department of Ecology (Ecology) and TCHD [2]. One sample in the Budd Inlet sample set was adjacent to Priest Point Park beach. Due to the limited number of samples from Priest Point Park beach area, DOH recommended Ecology conduct additional beach sediment sampling at Priest Point Park beach [2].

In summer 2010, TCHD developed an Ecology approved sampling plan in response to DOH's recommendation and public requests for a closer look at public access areas [3]. Ecology provided funding for TCHD to conduct the sediment sampling and analysis of Priest Point Park sediments. Samples were collected in October of 2010 and analyzed for dioxins.

Results and Discussion

DOH reviewed the 2010 sediment data from Priest Point Park beach. Levels of dioxins in the beach sediments ranged from 0.12 parts per trillion (ppt) to 4.8 ppt. Completed exposure pathways exist

when there is a strong likelihood that people will come into contact with contaminants. Potential exposure exists when there is a possibility that people would come into contact with contaminants. For this evaluation, dioxins exposure to a visitor or a worker can potentially occur from accidentally eating, touching, or breathing in sediment during recreation or beach cleanup. This would be considered an intermediate exposure (more than 14 days and less than 365 days).

DOH selected the ATSDR soil or sediment (note: there is no sediment standard for dioxins) health comparison value (Environmental Media Evaluation Guide (EMEG) - non-cancer) for intermediate exposure to dioxins under this scenario (10,000 ppt for an adult (a visitor or a worker)). Similarly, a child's exposure (a visitor) during recreational activities would be considered an intermediate exposure, and DOH selected the ATSDR health comparison value (EMEG) for dioxin (1,000 ppt for a child).

In addition, DOH screened Priest Point Park beach sediment values against two additional values for chronic dioxin exposures (more than 365 days (a visitor or a worker)): ATSDR's child chronic EMEG of 50 ppt for residential soil dioxin and Ecology's Model Toxic Control Act (MTCA) carcinogenic cleanup standard of 11 ppt for residential soil. This is not a residential area and the uses of these comparison values are very conservative for beach sediment exposure. However, all data samples from Priest Point Park beach are well below these comparison values. Therefore, health effects would not be expected from exposure to dioxins in Priest Point Park beach sediments.

Summary of dioxins (ppt) evaluation

- ATSDR's health comparison value for an adult's intermediate exposure is 10,000 ppt.
- ATSDR's health comparison value for a child's intermediate exposure is 1,000 ppt.
- ATSDR's dioxin screening level for residential soil is 50 ppt.
- Ecology's MTCA cleanup standard for residential soil is 11 ppt.
- Maximum dioxin level found at Priest Point Park beach was 4.8 ppt.

Conclusion

Based on the dioxins data from Priest Point Park beach, risks associated with accidentally eating, touching, or inhaling sediment during recreation or beach cleanup would not be expected to harm people's health.

Recommendations

DOH does not have public health recommendations related to dioxins in sediments at this time.

Since Priest Point Park beach is within the closure area for a sewage treatment plant outfall, DOH recommends as a prudent public health practice to follow the general advice on TCHD advisory signs at Priest Point Park beach (Figure 1).

Public Health Action Plan

No public health actions are needed related to Priest Point Park beach sediments dioxins.

If you have any questions regarding this letter please feel free to contact me at 360-236-3376 or 1-877-485-7316 or by email at Lenford.O'Garro@doh.wa.gov.

Sincerely,

Lenford O'Garro
Toxicologist
Site Assessment and Toxicology Section

References

1. Washington State Department of Ecology: Sediment characterization study Budd Inlet, Final Data Report. March 2008. Prepared for the Washington State Department of Ecology, Lacey, Washington. Prepared by Science Applications International Corporation, Bothell, WA
2. Washington State Department of Health. Public Health Consultation for Budd Inlet, Olympia, Thurston County, Washington, (July 28, 2008), updated September 30, 2008.
3. Washington State Department of Ecology: Field Sampling Plan, Priest Point Sediment Sampling Project. September 2010. Prepared for the Washington State Department of Ecology, Lacey, Washington. Prepared by Thurston County Health Department, Lacey, WA.
http://www.ecy.wa.gov/programs/tcp/sites/budd_inlet/SAP/PriesT_PPP_sampling_plan.pdf

Figure 1. Thurston County Public Health and Social Services Department (TCHD) advisory sign posted at Priest Point Park Beach, Olympia, Washington.

