

# Upper Columbia River Lake Roosevelt Site



## Ecology Studies Confirm Elevated Levels of Metals in Surface Soils, Local Lakes, and Wetlands near U.S. Canadian Border along Upper Columbia River Valley



The WA Department of Ecology is releasing results from two studies conducted near the U.S.-Canadian border along the Upper Columbia River Valley. These studies were conducted to further evaluate metals contamination from historic smelting operations in Trail, British Columbia, Canada.

One study evaluates surface soils in non-residential timberland areas near the U.S.-Canadian Border (Figure 1). Ecology sampled soils within two miles of the U.S.-Canadian border in the fall of 2012. Sampling covered approximately 15 to 20 square miles, reaching as far as 4 miles east and 6.5 miles west of the Columbia River in Stevens County. Over 120 soil samples were tested for various metals including lead, arsenic, zinc, cadmium, mercury, and others. The soil study did not include residential, agricultural or community use areas.

The second study completed in 2012 builds upon a 2010 study. It looks at metals concentrations in sediments at 10 lakes and wetlands along the Upper Columbia River Valley (Figure 2). Sediment samples were analyzed for lead, zinc, arsenic, cadmium, copper, antimony, mercury, total organic carbon, and grain size.

Findings from both 2012 studies confirm elevated levels of metals in sur-

face soils found in the Upper Columbia River Valley, and sediments in associated lakes, and wetlands. The studies also show these metals came mostly from past smelter emissions in Trail B.C. (See links to studies on page 2).

Based on these findings Ecology is asking the U.S. Environmental Protection Agency to accelerate planning and implementation of a sampling program. Ecology is asking the focus to be on assessing potential health risks in residential and recreational areas near the U.S.-Canadian border. Planning should focus on the area between the U.S.-Canadian border and Northport. Ecology is also asking EPA to implement a plan as soon as possible.

### Healthy Actions

These are some Healthy Actions you and your family can follow to reduce possible exposure to metals in soil. They are especially important for **young children**. (See details on page 2)

- ◆ Wash toys and clothing after playing on or near soil.
- ◆ Wash hands and face after working or playing outside and before handling food.
- ◆ Mop, dust, and vacuum often.
- ◆ Use a high-quality door mat and remove shoes before going inside.
- ◆ Keep yard well maintained with a solid grass covering.
- ◆ Eat a healthy diet and follow raised bed and gardening guidelines. (See links on page 2)

Fact Sheet June 2013  
Toxics Cleanup Program

**ADA accommodations** or documents in an alternate format, call Carol Bergin 509/329-3546 (voice), 711 (relay service), or 877-833-6341 (TTY).

**Para asistencia en Español:**  
Sr. Gregory Bohn 509/454/4174

**Если вам нужна помощь на русском, звоните**  
Larissa Braaten 509/710-7552

**Ecology's Upper Columbia River Lake Roosevelt Website:**  
<https://fortress.wa.gov/ecy/gsp/Sitepage.aspx?csid=12125>

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## Why Follow the Healthy Actions?

- ◆ Continued exposure to soil or dust that could contain elevated levels of lead and arsenic may build up in the body over time and cause health problems.
- ◆ Children under the age of 6 are at greatest risk because they play in soils and put hands and toys in their mouths.
- ◆ Following the Healthy Actions reduces exposure risks from metals in soil to you and your family.

## Is Blood-Lead Testing Necessary?

We know there may be possible exposure risks in the area between the U.S.-Canadian border and Northport. However, we do not have enough information to determine if testing people's blood for lead is necessary at this time. If you and your family want to be tested, please contact your family doctor.

Please consider following the Healthy Actions on Ecology's website to reduce possible exposure risks to metals in soils. The link to Healthy Actions is in the box on the right.

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## What Happens Next?

Ecology is holding discussions with EPA and others regarding an accelerated planning and sampling program to assess health risks in residential and recreational areas between the U.S.-Canadian border and Northport.

Ecology will periodically update the public on the status of discussions through Ecology's website and public notices. Questions may be directed to John Roland at Ecology. His contact information is found in the box on page 1 of this fact sheet.

## Ecology Needs Your Help

Ecology is distributing this fact sheet to individuals and organizations located near the study areas, and areas that may be most at-risk for metals in soil. Please help us spread the word to people who live in the areas between the U.S.-Canadian border and Northport.

## Links to Detailed Information

**Ecology's Website** for the Upper Columbia River/Lake Roosevelt Site <https://fortress.wa.gov/ecy/gsp/Sitepage.aspx?csid=12125> also contains all of the following information.

**Report** by Hart Crowser for the WA Department of Ecology: Upper Columbia River Upland Soil Sampling Study Stevens County, Washington: <https://fortress.wa.gov/ecy/gsp/Sitepage.aspx?csid=12125>

**Report** by Ecology May 2013: Metals Concentrations in Sediments of Lakes and Wetlands in the Upper Columbia River Watershed: Lead, Zinc, Arsenic, Cadmium, Antimony, and Mercury <https://fortress.wa.gov/ecy/publications/SummaryPages/1303012.html>

U.S. Environmental Protection Agency (EPA) Remedial Investigation Website: <http://yosemite.epa.gov/r10/cleanup.nsf/sites/upperc>

**EPA's Beach Study** on the Upper Columbia River: [http://www.epa.gov/region10/pdf/sites/ucr/beach\\_study\\_fact\\_sheet\\_april2012.pdf](http://www.epa.gov/region10/pdf/sites/ucr/beach_study_fact_sheet_april2012.pdf)

WA Department of Health's **Fish Advisory** for the Upper Columbia River: <http://www.doh.wa.gov/CommunityandEnvironment/Food/Fish/Advisories.aspx#UpperColumbiaRiver>

Citizens for a Clean Upper Columbia River: [www.cleancolumbia.org](http://www.cleancolumbia.org)

## Ecology's Dirt Alert Program

**Healthy Actions:** [http://www.ecy.wa.gov/programs/tcp/sites\\_brochure/dirt\\_alert/2011/healthy-actions.html](http://www.ecy.wa.gov/programs/tcp/sites_brochure/dirt_alert/2011/healthy-actions.html)

## Protect Your Family:

[http://www.ecy.wa.gov/programs/tcp/sites\\_brochure/dirt\\_alert/2011/dirt-alert-outreach.html](http://www.ecy.wa.gov/programs/tcp/sites_brochure/dirt_alert/2011/dirt-alert-outreach.html)

**Gardening Tips** (taken from the Tacoma Smelter Plume Site):

<http://ecologywa.blogspot.com/2011/11/tacoma-smelter-plume-eating-from-your.html>





Figure 1 Upper Columbia River Surface Soil Sampling, Stevens County, Washington  
Map by Hart Crowser





Figure 2 Study Area for Lakes and Wetlands Sampled in 2012  
Map by Ecology





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## **Two Ecology Studies Released about the Upper Columbia River Lake Roosevelt Site**