

Preliminary Results

In the fall of 2008, the Washington State Department of Ecology (Ecology) took one soil sample from 85 different locations near and downwind of the Rayonier Mill property. The purpose of this sampling is to help determine:

- The magnitude of dioxin soil contamination.
- The former Rayonier Mill's contribution to measured dioxin contamination, compared to other possible sources.

Ecology has preliminary results showing the magnitude of soil dioxin contamination. The results provide valuable information about the presence and characteristics of dioxins in the area.

A consultant is now analyzing the data to see if specific dioxin sources can be identified. The analysis and final report will be ready in late spring of 2009. This fact sheet provides the range of dioxin concentrations found during sampling, and a map of sample results.

When looking at the results, keep in mind that:

- Dioxins are unintentional byproducts of human activities and natural processes. They do not break down easily in the environment and, as a result, are found everywhere.
- In this fact sheet, Ecology uses the state cleanup level of 11.1 parts per trillion (ppt) only for comparison. It is based on an additional cancer risk of one in a million.
- A single sample cannot be used to say whether a property is contaminated or not. Dioxin levels can vary widely, even within a single property. Other parts of a property may not have the same results.
- Every property has a different history. The map of study results cannot help predict dioxin levels on different parts of your property or on other properties.
- A single sample cannot predict if there is a health risk on a property. Samples were taken from the most undisturbed part of each property in the study, which may not be an area where humans are exposed.

What Do the Results Show?

Eighty-five samples were analyzed. Dioxin concentrations range from 0.8 parts per trillion (ppt) to 76.3 ppt.

More Information

For questions about these results, please contact:

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Public involvement contact:

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E-mail: haoy461@ecy.wa.gov

Ecology's Toxics Cleanup Web site

http://www.ecy.wa.gov/programs/tcp/sites/rayonierOffProp/rayonierOffPr_hp.htm

Health-Related Questions

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Environmental Health Division
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Washington Department of Health:

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Concentration of Dioxins in Soil Samples

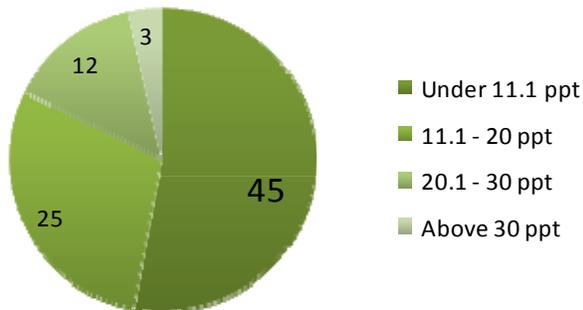


Figure 1. Concentrations in parts per trillion (ppt)

Note: Dioxin levels are shown in 10 ppt intervals to make data easier to view.

- Forty-five samples were below the MTCA cleanup level of 11.1 ppt (see Figure 1).
- Twenty-five samples were between 11.1 ppt and 20 ppt.
- Twelve samples were between 20 and 30 ppt, and three were over 30 ppt.

Ecology will now look at the overall pattern of dioxin levels and try to determine the source or sources. The agency must wait until the final report is complete before taking any further steps.

If you or members of your household are concerned, you can reduce exposure to potentially contaminated soil by following the Healthy Actions shown in the box to the right.

Why Release Early Results Now?

Ecology committed to providing the study results to property owners as soon as they were available.

What Happens Next?

The final soil dioxin report will include all the dioxin test results and findings about the relative contribution of the former Rayonier Mill and other possible sources. This information will help Ecology decide how to address soil dioxin contamination. The report will be available for public review during late spring of 2009. Please check the Ecology Web site (page 1) for updates.

Healthy Actions

You can limit your family's exposure to dioxins and any other type of possible soil contamination by:

- Washing your hands after working or playing outside, and before eating.
- Scrubbing fruits and vegetables from the garden.
- Vacuuming regularly and dusting with a damp cloth.
- Keeping children's toys clean.

Also: Dioxins from air emissions tend to stay in the upper layer of soil until they are disturbed. Landscaping and development can dilute these dioxins, while grass and other ground cover can help prevent exposure.

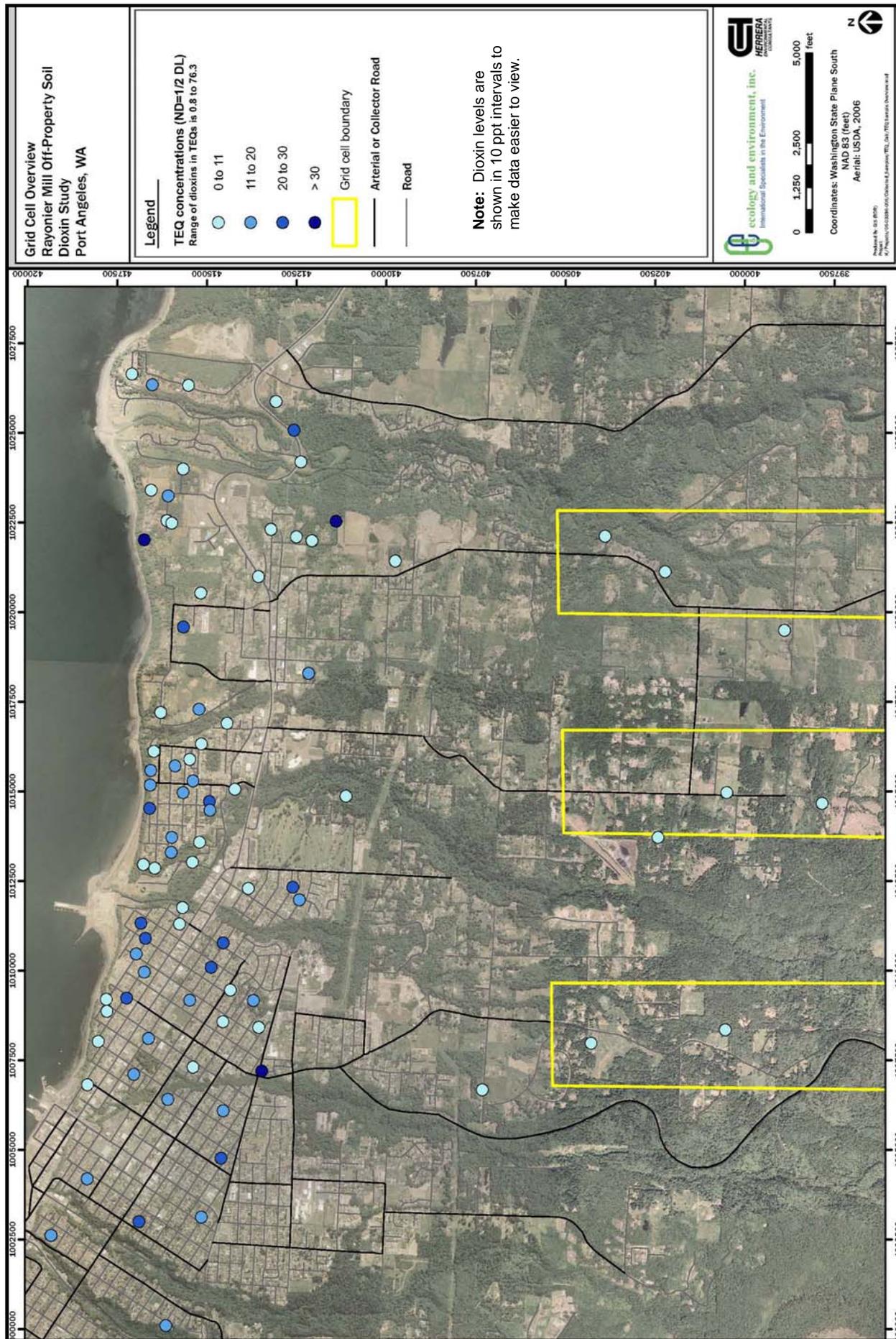


Figure 2. Map showing sample results from the Rayonier Mill Off-Property Soil Dioxin Study. This map is not “evidence” of a specific source or sources of dioxins. Although you may see “patterns” on the map, these data cannot be used to predict dioxin levels on your property. Each property is different—places with disturbed soils (recently built on or land-scaped) may have lower levels of dioxins. Fires or herbicide use can increase dioxin levels on a property.



DEPARTMENT OF
ECOLOGY

State of Washington

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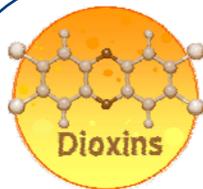
Olympia, WA 98504-7775

Rayonier Mill Off-Property Soil Dioxin Study Clallam County, WA

Preliminary Results Available

No Public Comment Period

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What are dioxins?

Dioxins are a family of chemicals with similar chemical structures and biological effects. They are unintentional by-products of both human activities and natural processes. They do not break down easily in the environment, and as a result, are found everywhere. Most people are exposed to very small levels of dioxins when they consume food or milk, breathe air, or have skin contact with dioxin contaminated soils or other materials.

Sources: Dioxins can be formed during industrial processes, such as chlorine bleaching of pulp (done at the Rayonier Mill in the past) and certain types of chemical manufacturing. Dioxins can also form during combustion (burning) and waste incineration. This includes burn barrels, fireplaces, and wood stoves.

