Upland Data Report (Volume I)
Available for Public Review

The Department of Ecology (Ecology) has approved the public review draft Upland Data Summary Report for the Rayonier Mill site. The report (also called Volume I) summarizes all data Rayonier collected about contamination on the former mill property.

Together with data about nearby marine areas, the upland results will help Rayonier plan for cleaning up the Study Area. Ecology’s 2010 agreed order (legal agreement) with Rayonier requires the company to develop a cleanup plan for the Study Area. The Study Area (see map below), which is a portion of the Rayonier Mill site, includes the 75-acre former mill property (upland) and around 1,300 acres of marine environment (marine).

Is Ecology holding a comment period now?
Ecology is not holding a public comment period on the report now. We are making the upland report available for the public to begin reviewing now because it is so large and technical. You can review the report at locations shown in the box on the right. If you have questions, please send them to a staff member listed on the right.

We will hold a comment period on this report in 2014, when we also have the marine data report (Volume II) and Rayonier’s analysis of cleanup options (Volume III).

Upland Contamination
The amount and type of contamination varies across the upland. Because of past interim actions (partial cleanups) that removed over
30,000 tons of contaminated soil, only lower levels of contamination are found across much of the upland. Rayonier found:

- **Polycyclic aromatic hydrocarbons (PAHs)** in surface soil (0 - 2 feet deep), subsurface soil, and groundwater.
- **Toxic metals** arsenic, chromium, copper, lead, manganese, mercury, and nickel in surface and subsurface soil, groundwater, or surface water.
- **Dioxins and furans** in surface and subsurface soil, groundwater, and surface water.
- **Total petroleum hydrocarbons** in subsurface soil.
- **Polychlorinated biphenyls (PCBs)** in subsurface soil and groundwater.

Rayonier also found limited areas of low and high pH in groundwater. This can cause some metals to move out of soil and into groundwater.

Report sections 6.3 and 6.4 give an overview of contamination.

**Contaminant Sources and Movement**

Sections 2 and 6.4 discuss how Rayonier used the property, sources of the pollutants, and how they were released.

Section 6.4 divides the property into areas based on uses and setting. This will help in developing a cleanup plan and supporting potential future uses.

Section 8 describes how contaminants can move on the site and how concentrations have changed over time.

**Exposure Pathways**

Section 7 outlines how humans and other species can potentially be exposed to contamination.

**Cleanup Progress**

Rayonier is on schedule with their agreed order tasks. Rayonier’s agency review draft Marine Data Summary Report is due in March 2013. Ecology will then review and comment on the report, and Rayonier will revise it into a public review draft document. We will make it available for public review once we have reviewed and approved it.

**Site Background**

Rayonier operated a specialty pulp mill on the former mill property from 1930 until 1997. Sulfite and acid were used to break down wood to extract the cellulose fibers. The pulp from the mill was sold to companies that made photographic film, fabrics, and plastics.

The sulfite pulp-making process created various waste materials. Until the 1970s, when the mill began treating waste water, liquid wastes and other byproducts were discharged directly into Port Angeles Harbor. The mill also burned wood chips and sludge to generate steam and electricity. This created air emissions, which included dioxins and furans. Other contamination came from fuel, electrical equipment, and other mill operations.

**Other Port Angeles Cleanups**

Ecology is investigating two areas outside the Study Area to help determine the extent of contamination from Rayonier or other sources:
- Port Angeles Harbor Sediments Study.
- Rayonier Mill Off-Property Soil Dioxin Study.

Ecology is also working to investigate and clean up other contaminated sites around Port Angeles Harbor. For more information, visit the Rayonier Mill website (see page 1).
Upland Report Figure 6: Rayonier Mill Soil Sampling Locations and Interim Action Areas

This figure from the upland data report shows locations of soil sampling between October 1999 and September 2010. It also shows interim actions (partial cleanups) Rayonier did from 1993 - 2006.

Because Rayonier has removed much soil with high levels of contamination, the upland report does not show many areas with high levels of contamination. Instead, it shows lower levels of contamination around much of the site.

Legend

- Soil Sample Locations After October 1999
- Monitoring Well Locations
- Former Monitoring Well
- Upland Study Area

Interim Action Areas & Material Quantities Removed

- Finishing Room - 10,150 tons soil (hydraulic oil/PCBs; 1993, 1999, 2002)
- Fuel Tank No. 2 - 5,400 tons soil (Bunker C; 1993, 2002)
- Hog Fuel Pile - 2,700 cy wood residue (diesel & heavy oil; 2001)
- Machine Shop - 970 tons soil (diesel & heavy oil; 2002)
- SSL Lagoon - 4,600 tons soil (2001)
- Wood Mill & Fuel Tank No. 1 - 7,990 tons soil (hydraulic oil & Bunker C; 2006)
Why Does Cleanup Matter?

Wood pulping at the former Rayonier Mill contaminated soil, groundwater, and sediments on and around the property. This contamination poses a threat to human health and the environment. Contaminants in sediments can harm marine life—such as fish and shellfish—and the people who depend on them for food.

The site is currently fenced off and vacant. Once Rayonier completes cleanup, it can be put back into productive reuse. This will depend on who owns the property in the future and what type of habitat restoration is needed.

Mailing List

To be removed from or added to our e-mail or mailing list, contact public involvement coordinator Diana Smith at Diana.Smith@ecy.wa.gov or (360) 407-6255.