Summary of Environmental Site Assessments

Weyerhaeuser Real Estate Company (now WREDCo) and Weyerhaeuser Company commissioned extensive analysis of the former Snoqualmie Mill site, including:

- Level I Environmental Analysis, Shannon & Wilson, Inc. December, 1993.
- Level II Environmental Site Assessment, Delta Environmental Consultants, June, 2004
- Level III Environmental Site Assessment, Delta Environmental Consultants, December, 2005
- Supplemental Environmental Site Assessment for Former Lumber Strapping Area and Former Dip Tank Area, Delta Environmental Consultants, July, 2005
- Supplemental Environmental Site Assessment for Former Underground/Above Ground Storage Tank Area, Delta Environmental Consultants, July, 2005
- Permit Closure Report King County DDES, Pacific Environmental and Redevelopment Corporation, Undated.

a. Level I ESA. The Level I Environmental Site Assessment (ESA) reviewed the former plywood plant operations; sawmill operations; underground storage tank (UST) fueling cluster; aboveground road oil storage facility (AST); powerhouse and hog fuel operations; silva cell operations; kiln/lumber finishing/shipping operations; log pond operations; mill site; hazardous material storage; herbicide storage; asbestos abatement program; rail spur abandonment; and mill-wide ditch drainage system.

The Level 1 ESA concluded:

Mill-wide Overview

Environmental issues identified at this mill site location have been managed in accordance with applicable regulatory guidelines in an "industrial" setting. Appropriate focused remedial actions have been implemented to identify and quantify potentially hazardous compounds in soil and groundwater in order to limit their potential impact to the surrounding environment.

At the present time, each of the known impacted locations at the mill site are in a mode of long-term monitoring with varying degrees of engineering controls in place, which offer site stabilization. Regulatory community involvement and reporting has been implemented to comply with release reporting requirements, as specified in each situation.

Present areas at the mill site utilize up-to-date BMPs[1] for the handing and use of regulated chemicals, mixtures, herbicides, and petroleum products. Underground storage facilities have been abandoned and replaced with acceptable industrial technology, which includes covered facilities, aboveground storage units, secondary containment in the form of double wall tanks and bermed concrete

[1] Best Management Practices.

floors, spill prevention and countermeasure plans, spill abatement equipment, and the discontinued use of adverse chemical products with substitution of biologically degradable commodities.

It then reviewed recommended actions for three areas: the former plywood mill T-12 site; the former saw mill site; and the former underground storage tank fueling cluster and aboveground road oil tank areas.

b. Level II ESA. The Level II ESA identified potential issues that may require further investigation and/or remediation and recommended 6 steps: additional employee interviews and records review to determine whether wood treating activity had occurred and, if so, investigate the site; resampling of specific areas in the powerhouse/sawmill regions of the site for total petroleum hydrocarbons (TPH); limited characterization of the Morbark, former UST/AST, and lube oil storage areas to obtain data demonstrating Ecology compliance and/or impact delineation prior to initiating remedial actions; additional petroleum hydrocarbon investigation in the transformer T-18, lumber strapping, chip truck lift, and former vehicle wash areas to delineate impacted soils and evaluate impacts to groundwater; request a NFA[2] letter from EPA for the transformer spill area T-12 and place a deed restriction on this area; evaluate the volume of boiler ash in the Powerhouse area and follow Ecology regulations for disposal or soil amendment.

c. Level III ESA. The Level III ESA investigated the powerhouse and sawmill area (50,000 gallon AST and sash gang areas); the powerhouse and sawmill area (log haul area); morbark area; former aboveground road oil storage tank and lube oil areas; transformer T-18 area; lumber strapping area; former vehicle wash pad; PCP dip tank areas; boiler ash; and powerhouse oil sampling. No further assessment was required in: 50,000 gallon AST and sash gang areas; morbark area; and PCP dip tank area 2.

Diesel range organics and heavy oil impacted soils above either the Model Toxics Control Act (MCTA) Method A or B clean up levels were sampled in the log haul area; former aboveground road oil storage tank and lube Oil AST areas; lumber strapping area; and former vehicle wash pad. Limited petroleum hydrocarbons above the MTCA Method A clean up level were detected in the immediate vicinity of transformer T-18.

Detected phenolic compounds were below MTCA Method B clean up levels in dip tank area 1 but above USEPA Regions 9 recommendations.

d. Supplemental ESA - Lumber Strapping and Dip Tank Areas. This Supplemental ESA collected supplemental soil and groundwater data to define the extent of affected groundwater in the dip tank area and soils in the lumber strapping area and to scope remedial activities. PCP above the MCTA Method B cleanup level was found in one of four piezometers (1.1 µg /L found; Method B clean up level is 0.729 µg/L). The results indicate that PCP impacts to groundwater were localized near the location of the former dip tank and have not migrated downgradient.

[2] No further action.

e. Supplemental ESA - Former UST/AST Area. One well has consistently shown benzene concentrations above Ecology preliminary screening level of 5 µg /L. This Supplemental ESA sought to identify the source and to collect supplemental soil and groundwater data to estimate remedial soil removal volumes in/around the UST monitoring well. The consultant estimated that approximately 1,900 cubic yards of soil would need to be excavated.

f. Permit Closure Report. The report explains that Weyerhaeuser undertook site characterization and voluntary remediation at the site for close to 20 years primarily due to updating and modernization of processes and associated infrastructure. During that time, there were several regulatory changes to the clean up levels accepted by Ecology.

In 2005 Weyerhaeuser applied to King County for a grading permit to conduct an Independent Cleanup under MTCA, chapter 173-340 WAC. Weyerhaeuser estimated that 3,500 cubic yards (CY) of petroleum contaminated soils would require excavation, stockpiling, and treatment. King County issued a declaration of non-significance and grading permit. Work began in October, 2005. It became apparent that the extent of contaminated soils was greater than originally estimated. King County authorized an expanded scope of work.

Soils were excavated from: the powerhouse/mill (13 CY); road oil AST and lube oil storage facility area (6,787 CY); lumber strapping area (751 CY); morbark area (1,500 CY); and UST (6,787 CY) area.

Excavated soils were stockpiled on asphalt or concrete pads. The majority of the stockpiles were within buildings and did not require covering. Stockpiles that were not in buildings were covered with plastic. 89% of the excavated soils met site-specific MTCA Method B unrestricted land use cleanup standards following treatment and were returned to their original location and compacted. Soils from the lumber strapping area did not respond to treatment and were shipped to a landfill in Arlington, Oregon.