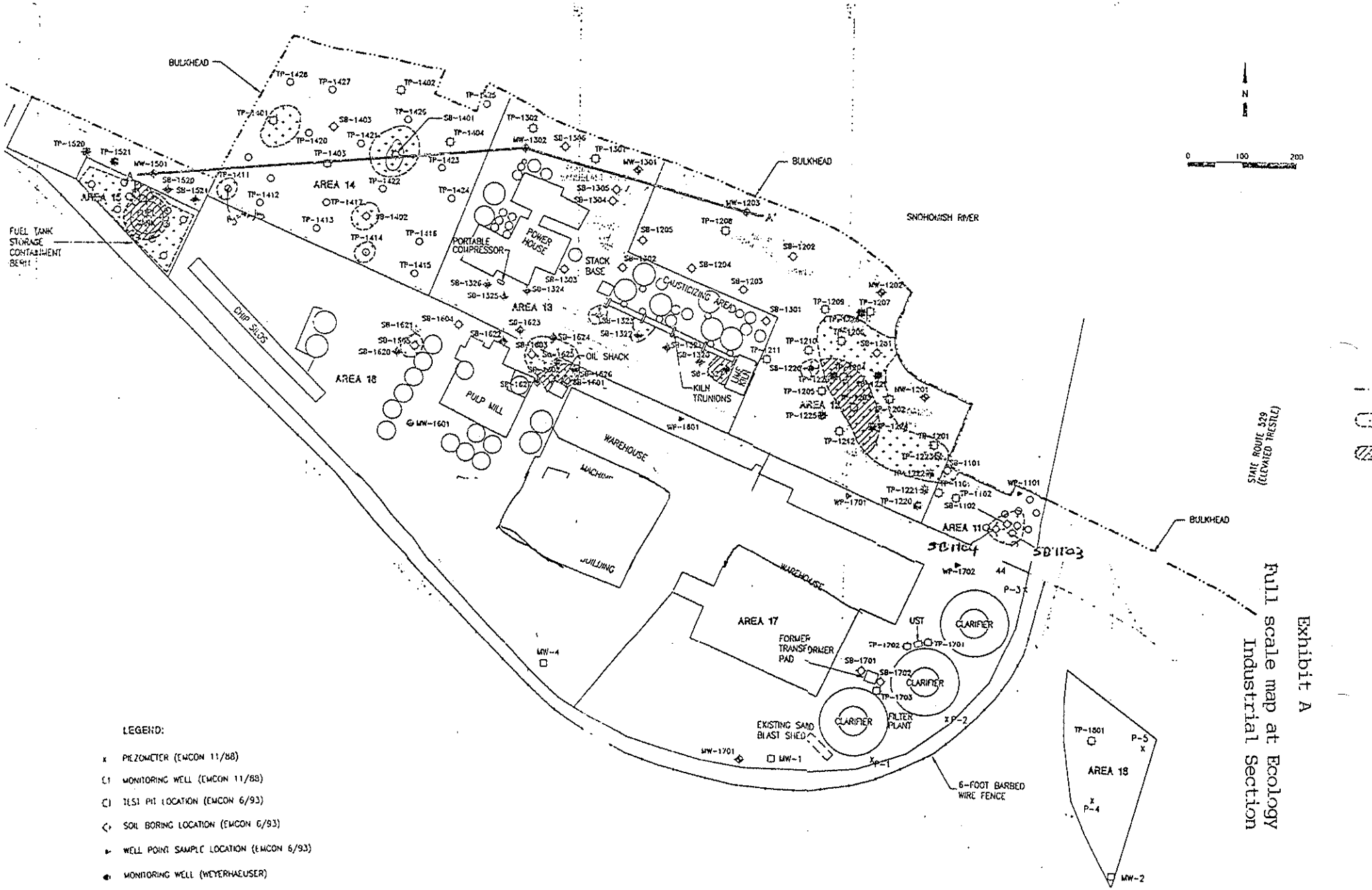

Exhibit A
Full scale map at Ecology
Industrial Section

weyerhaeuser, Everett
west Site
Site Plan + Sampling

Exhibit B

CLEANUP ACTION PLAN

Weyerhaeuser West Site
Everett, Washington

by

Washington Department of Ecology
October 2, 1994

Table of Contents

Cleanup Action Plan
Weyerhaeuser Company
Everett West Site
Everett, Washington
October 2, 1994

1.1 PURPOSE

This document presents the Cleanup Action Plan for the Weyerhaeuser Company - Everett West Site. The Cleanup Action Plan documents the site-specific factors and analysis that led to the selection of the cleanup remedy for the site. The Weyerhaeuser West Site is located northeast of the city of Everett along the bank of the Snohomish River. The site consists of approximately 35 acres of industrial property which is the western portion of a larger Weyerhaeuser parcel and is referred to as the West Site. The site consists of a former kraft pulp mill complex that was closed in 1992 and several wood processing complexes that were closed in the late 1970's and 1980's. The area is zoned heavy industry.

The cleanup decisions that are presented in this Cleanup Action Plan are based on data presented in a remedial investigation report titled Compilation of Assessment Documents for Weyerhaeuser Everett West Site, a feasibility study and work plan prepared by EMCON Northwest for Weyerhaeuser Company. The purpose of the Draft Cleanup Action Plan is to:

--- Summarize the site characteristics and the alternative cleanup actions examined by Weyerhaeuser in the work plan.

--- Describe the proposed cleanup action and rationale used to select the plan.

--- Provide an opportunity for the public to comment on the proposed cleanup action.

1.2 APPLICABILITY

This Cleanup Action Plan is applicable only to the Weyerhaeuser Everett West Site. The cleanup action levels, cleanup standards, and cleanup actions presented in this document have been developed as a result of a remediation process conducted with Department of Ecology oversight. The cleanup action levels and cleanup actions are site specific. The cleanup actions should not be considered as setting precedents for other similiar sites.

Ecology is SEPA lead agency for this action. A threshold determination has been made to issue a Determination of Nonsignificance(DNS) for the cleanup project. The DNS will be

public noticed along with the CAP and consent decree. A public hearing will be held concerning the action. Weyerhaeuser is exempt from shoreline permitting and has independently applied for a local grading permit. At this time no additional permits are required. In the event Ecology determines that additional permits are required for the remedial action, Weyerhaeuser will be notified. At that time, the substantive requirements of the permits will be determined and Weyerhaeuser will submit documentation that any additional substantive requirements are fulfilled.

Potentiality Liable Persons (PLPs) cleaning up sites independently, without Ecology oversight, may not cite numerical values of cleanup levels specified in this draft document as justification for cleanup levels in other unrelated sites. PLP's that are cleaning up sites under Ecology oversight must base cleanup action levels and cleanup standards on site specific regulatory considerations and not on the numerical values contained in this CAP.

1.3 DECLARATION

The selected remedy will be protective of human health and the environment. Ecology gives preference to permanent solutions to the maximum extend where practical. In this cleanup, treatment and recycle technologies were examined but not used do to the length of time to complete the process and the cost. Source control, deed restrictions, and removal of contaminated soil to an approved off-site landfill was the preferred cleanup remedy. Ground water is affected by contaminants from both on and off the property. Water treatment technologies such as pump and treat were not considered practicable at this site due to the low levels of contaminates in the aquifer and the effectiveness of the system in the most contaminated zone. Institutional controls along with source control measures are the remedial action chosen for the remediation.

SITE DESCRIPTION AN HISTORY

2.1 SITE LOCATION.

The Weyerhaeuser West Site is located within the city of Everett along the Snohomish River. The area directly surrounding the site is heavy industry. Zoning on the bluffs 1/8 mile south of the site is residential. The site address is 101 East Marine View Drive, Everett, Washington. Figure One shows the site location.

2.2 SITE HISTORY.

The Everett Weyerhaeuser Snohomish River complex has been in

existence since the early 1900's. The first operations in the Everett area were in 1902. The West Site is only a portion of a larger Weyerhaeuser parcel located along the Snohomish River. To the east of the site, Weyerhaeuser operated a wood processing facility for over 50 years.

The West Site consists of the former Mill C, Mill D and the Kraft Pulp Mill. The former Mill C manufactured wood boards from 1926 to 1976. It was a sawmill operation. The former Mill D was another wood board manufacturing facility that began operation in 1963 and continued until 1971. The kraft pulp mill facility began operations in 1953 and closed in 1992. The wood sort yards, waste water treatment aeration lagoons, and wood waste landfill which supported the West and East side operations are located across the Snohomish River on Smith Island.

After the closure of the pulp mill in 1992, Weyerhaeuser began site assessment and field activities to determine environmental damage caused by 50 years of operation. The site assessment activities included a review of West Site blueprints, reports, aerial photographs, and agency files. Former and current Weyerhaeuser employees were interviewed. In addition, the West Site was divided into specific areas for further examination based on the initial investigative work.

The eight areas are summarized below.

Area 11 Sandblast Fill - Area 11 contains the cement foundations used to support a hog fuel burner, a former transformer and an abandoned clarifier associated with Mill C. A fill area is also located along the eastern half of the area. The fill consists of undivided debris from the plant, soil, and sandblast grit.

Area 12 Former Mill C - No buildings currently exist in the area. The facility which operated in this area was a lumber mill which processed raw logs into finished lumber. The area contains a structural sand/gravel fill parking area and adjacent areas of debris/fill (including woodwaste, buried concrete, buried dock pilings, and subdrains).

Area 13 Powerhouse, Recovery and Causticizing - Area 13 was used for power generation and chemical recovery of kraft pulp mill liquors. The area also contained a sandblast shed. The area includes the lime kilm and associated support structures, the powerhouse, and main exhaust stack base. A portable compressor area and caustic lime pile have been removed. Two recovery boilers and the main stack are located next to the powerhouse. A sandblast shed is located north of the powerhouse where sandblasting of equipment was conducted.

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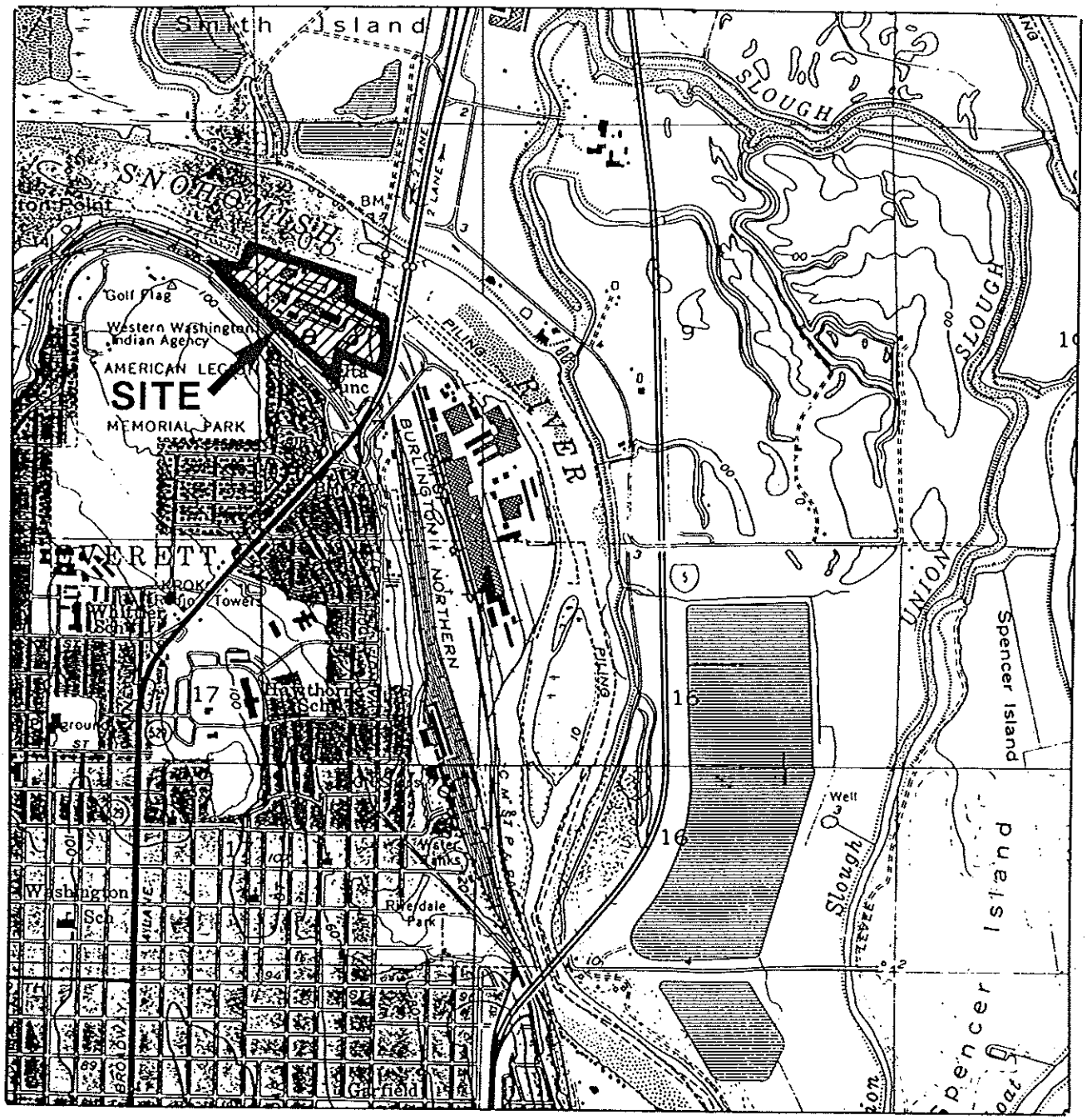


EMCON Northwest, Inc.

DATE 6/92
DWN. JA
APPR.
REVIS.
PROJECT NO. 0141-037.29

Figure 1
WEYERHAEUSER COMPANY
WEST SITE
EVERETT, WASHINGTON

SITE LOCATION MAP

Area 14 Northern Chip Storage - Area 14 was created to store wood chips for the former kraft pulp mill. The area was created by sinking two or more wooden barges filled with river sediments along the bank of the Snohomish River. The area behind the barges was filled with sand fill and then used as wood chip storage. The area still contains several feet of wood chips.

Area 15 Fuel Storage Tanks - Area 15 consists of a bermed yard containing one 577,500 gallon aboveground Bunker C tank. A former 1,000 gallon above ground diesel tank was also located within the containment area.

Area 16 Pulp Mill - Area 16 contains the pulping section of the kraft pulp mill. The area consists of warehouse, machine room, offices, maintenance building, chip silos, pulp processing storage tanks, bleach plant, and a lube oil storage shed. Pulping operations, including storage of chips and paper products, occurred in this area. The lube oil shed was used for storage of petroleum products and solvents. Drums of petroleum products were also stored next to the storage shed.

Area 17 Warehouse and Filter Plant - Area 17 contains a warehouse, process water filter plant, non-PCB transformers yard, former gasoline underground storage tank, and a former sandblast shed. The water filter plant processed incoming river water for use in the pulping process. Sandblasting was conducted in the sandblast shed.

Area 18 Former White Liquor Storage Area - Area 18 currently contains no buildings or tanks. In 1975 the Everett Kraft Mill used an innovative process for cooking wood chips. The process used a sulfurless cooking liquor to cook wood chips. The liquor was removed from the process and stored in tanks in Area 18. No other uses of this area have been reported.

2.3 CURRENT STATUS

The kraft mill on the site will be dismantled and sold. The saw mills have been demolished and removed. The area 14 chip pile is being recycled. The NPDES wastewater treatment system is still active and may be used by the future owner of the property.

2.4 FUTURE USE

The site is scheduled to be transferred to a new owner in late 1994 or 1995. The new company proposes to construct a deinking facility and co-generation power plant. The co-generation/deinking project is currently on schedule.

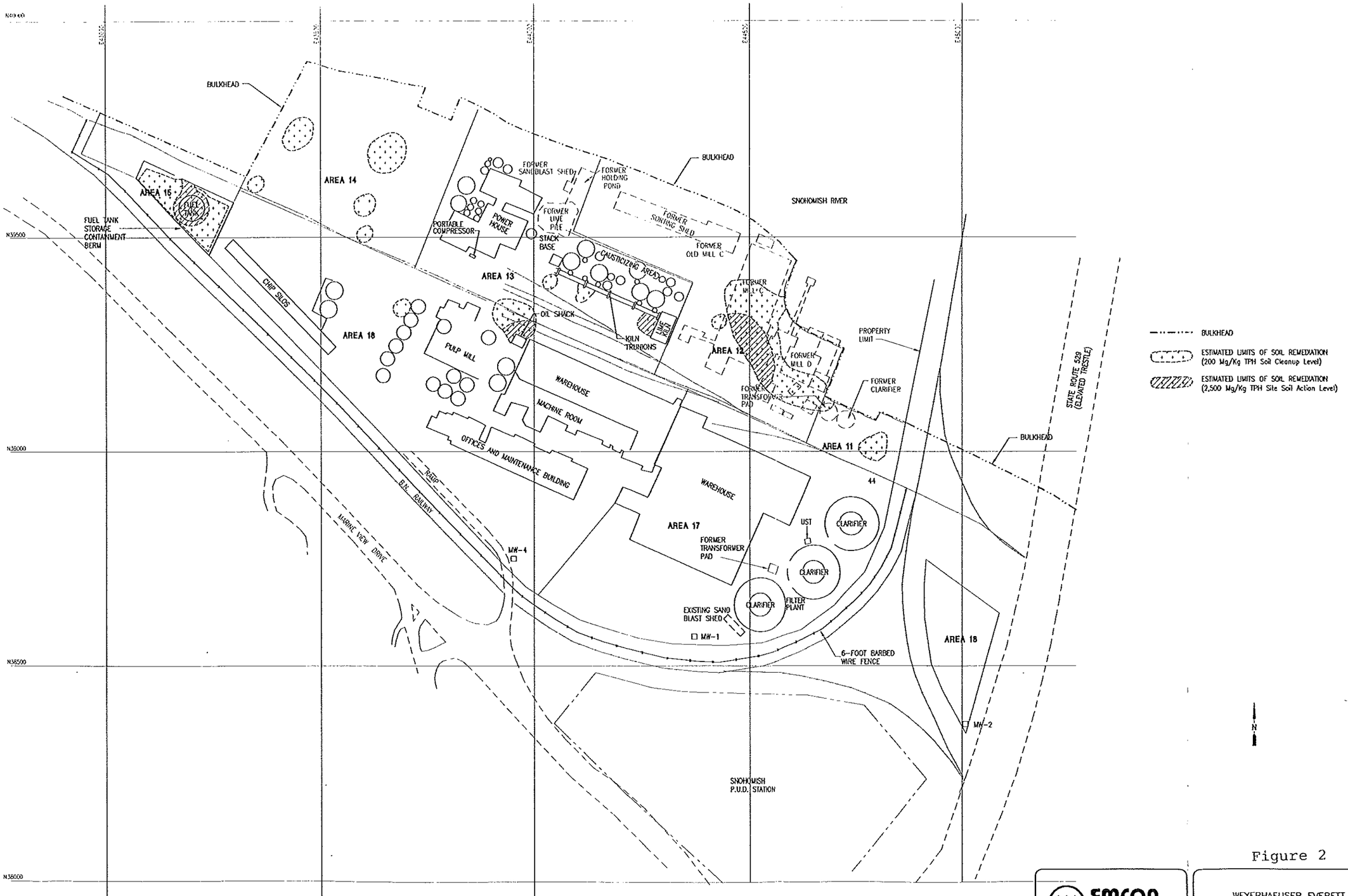


Figure 2

EMCON Northwest, Inc.

WEYERHAEUSER EVERETT WEST SITE
DRAFT REMEDIATION WORK PLAN
SITE PLAN

SCALE: 1=100 7-11-94 G:\DWG\0141\037\81005-b

RESULTS OF ENVIRONMENTAL STUDIES

3.1 SITE CHARACTERIZATION

3.1.1 Site Description.

The site has been divided into eight principal areas. Each of these areas contains specific environmental problems. Soil and water sampling indicate that some of the areas need remedial action while some of the areas are considered clean. The areas are listed below (Figure 2):

- Area 11 Sandblast Fill. The area was examined for metals and petroleum contamination.
- Area 12 Former Mill C. The area was examined for petroleum hydrocarbons, volatile organic compounds, PCB compounds, PAH compounds, PCP wood preservative, and several general chemistry parameters.
- Area 13 Powerhouse, Recovery, and Causticizing. The area was used for power generation and chemical recovery of kraft pulp mill liquors. The area also contained a sandblast shed. The area was examined for TPH-O(extended), TPH-D, PAHs, PCBs, total metals, and pH.
- Area 14 Northern Chip Storage. The area was examined for petroleum hydrocarbons, totals metals, PCBs, and pH.
- Area 15 Fuel Tank Area. The area was tested for petroleum hydrocarbons.
- Area 16 Pulp Mill. The area was examined for petroleum hydrocarbons, volatile organic compounds, and pH.
- Area 17 Warehouse and Filter Plant. The area was examined for total metals, petroleum hydrocarbons, BTEX, and pH.
- Area 18 White Liquor Storage. The area was examined for petroleum hydrocarbons and pH.

3.1.2 Site Geology and Hydrogeology

The site is located on relatively level fill adjacent to the Snohomish River approximately 0.75 miles upstream from the river mouth at Port Gardner in Puget Sound. The river is channelized

and consists of a main stream and numerous sloughs separated by marshy islands. The main channel runs next to the site and is approximately 600 feet wide. The site is within the low-lying floodplain of the river and is a former estuarine tide flat. The site was filled with dredged sand from the river bottom during the early 1900's. The bank of the river has been stabilized along the length of the site with a bulkhead of timber pilings.

The sediment underlying the site consists of man-made dredge fill overlying natural floodplain deposits. The general stratigraphy of the site is listed below from youngest to oldest.

- The grade fill and mixed fill unit is continuous across the site. It is composed of sandy gravel, asphalt, angular pebbles and cobbles of crushed rock, wood chips, wood bark, and wood debris. The grade fill ranges in thickness from 1 to 4 feet in Areas 11, 12, 13, 15, 16, 17 and 18. Area 14 is filled with wood chips.

- The Upper Sand unit (dredge fill) consists of gray brown to black, fine to medium sand with trace coarse sand. The unit ranges in thickness from 2 to 10 feet. The material was dredged from the Snohomish River and deposited on estuarine tidal flats across most of the West site.

- The Upper Silt unit consists of a stiff, low plasticity to nonplastic, gray-brown to dark brown silt with abundant organic matter consisting of wood fragments and rootlets in the upper portions of the unit. The unit is interbedded with thin lenses of fine sand and silty sand. The thickness of the unit is unknown at the site.

The hydrogeology of the site consists of a shallow unconfined aquifer in the dredge fill upper sand unit. Ground water was encountered at depths ranging from 2 to 6 feet across the site. The thickness of the saturated zone ranges from 4 to 12 feet, or to the base of the Upper Sand unit. No pump testing was conducted on the unit to determine yields.

The hydraulic gradient of the shallow ground water is north toward the Snohomish River. The shallow unconfined aquifer has been studied in the vicinity of the PUD Delta switching station, formerly the Weyerhaeuser demolition landfill which was located directly east of the site. Water levels in the aquifer near the former landfill were monitored to evaluate the effect of the tidal induced water level changes in the Snohomish River. The results indicate a very minor change in water levels for a large change in tidal range. This suggests that the river has some effect upon the shallow aquifer beneath the site but the effect

is probably locally isolated from the river.
Deep alluvial aquifers have been found to be saline (Miller Shingle well on Smith Island) in the vicinity of the site. There are no beneficial users of ground water that are reported within 2000 feet of the West Site. The nearest well to the site is located three quarters of a mile east of the site and across the Snohomish River which acts as a ground water divide.

3.1.3 Soil and Ground Water Investigations

Two media, soil and ground water were examined during the environmental investigations. Locations of ground water sample points, monitoring wells, soil borings, and soil sample pits are given in Figure 3 Site Map. Ground water was examined using sixteen temporary well points, four piezometers, and eight monitoring wells. The monitoring wells are located along the northern edge of the property and downgradient from each of the suspect contaminated areas. Samples taken from well points and sample borings are located throughout the site. Three rounds of ground water monitoring well sampling were conducted during June 1993, October 1993 and February 1994. Temporary well point and soil boring sampling occurred during August 1992, and June of 1993. Ground water samples were tested for some or all of the following analytes: BTEX, TPH-G, TPH-D, TPH-O(extended), VOC, PAH, PCB, dissolved metals, total metals and general chemistry including pH, specific conductance, and turbidity. TPH-O(extended) analysis is the TPH-D analysis extended to heavier hydrocarbons.

At this Site, temporary well points give a general idea of water quality. The well points have not been developed and do not have clean sand filter packs placed next to their screens. The eight well monitoring system can be used to determine specific water quality at the site. The monitoring well system has been developed and has been constructed properly. A description of each monitoring event and analytical results is given below.

June 1993 Monitoring Event - General site wide monitoring. Temporary soil bores, well points, and monitoring wells.

TPH-G - Three samples were taken from well points in the vicinity of the Area 17 former underground storage tank. TPH-G was not detected.

TPH-D and TPH-O(extended) - Twenty eight samples were collected from the monitoring well system and temporary well point system. The TPH-D results ranged from non-detection to 2.0 mg/kg. Five of the samples contain some TPH-D hydrocarbons. TPH-O(extended) was detected in two samples at 1.3 and 2.4 mg/l. Six samples from either the temporary well points or monitoring wells had TPH-O(extended) or D levels above the cleanup standard of 1 mg/kg. Of these six samples only one monitoring well (MW-1302) had TPH levels above the MTCA Method A limit of 1 mg/kg.

VOC's - Ten ground water samples were collected near areas

where petroleum products, solvents, or other organic chemicals may have been used. Only one sample had levels above method detection limits. The sample (SB 1601) contained six VOC compounds at ranges of 2 ug/l to 36 ug/l. The well point is located next to the oil shack in the pulp mill area 16. No other monitoring well or well point contained any VOC compounds.

BTEX - Ten samples sites were analyzed and no BTEX compounds were detected.

PAH and Semi Volatile Organic Compounds - Seven ground water samples were tested for semi-volatile organic compounds. Four of the samples contained trace amounts of different semi-volatile compounds. Only one sample contained contaminant levels that measured above the MTCA method B cleanup level. The compound is bis(2-ethylhexl)phthalate, a common plasticizer, at the 7 ug/l level.

PCBs - Thirteen ground water samples were collected and analyzed for PCBs. No PCBs were detected in any of the samples.

Dissolved Metals (As, Cr, Pb, and Hg) - Twenty one samples were analyzed for dissolved metals. Arsenic was detected in 23 of 26 samples. Levels of arsenic range from 3 ug/l to 100 ug/l. Chrome was detected in 4 of 26 samples collected. The chrome values range from 12 to 57 ug/l. Mercury was detected in 2 of 26 samples at .2 ug/l. Lead was detected in 4 of 26 samples at levels that range from 4 to 52 ug/l. MTCA method A values for arsenic, lead, and chrome were exceeded in the samples.

Specific conductance, pH and Turbidity - Twenty one samples were analyzed for pH. The pH ranged from 5.4 - 9.9. Specific conductance and turbidity were within normal ranges.

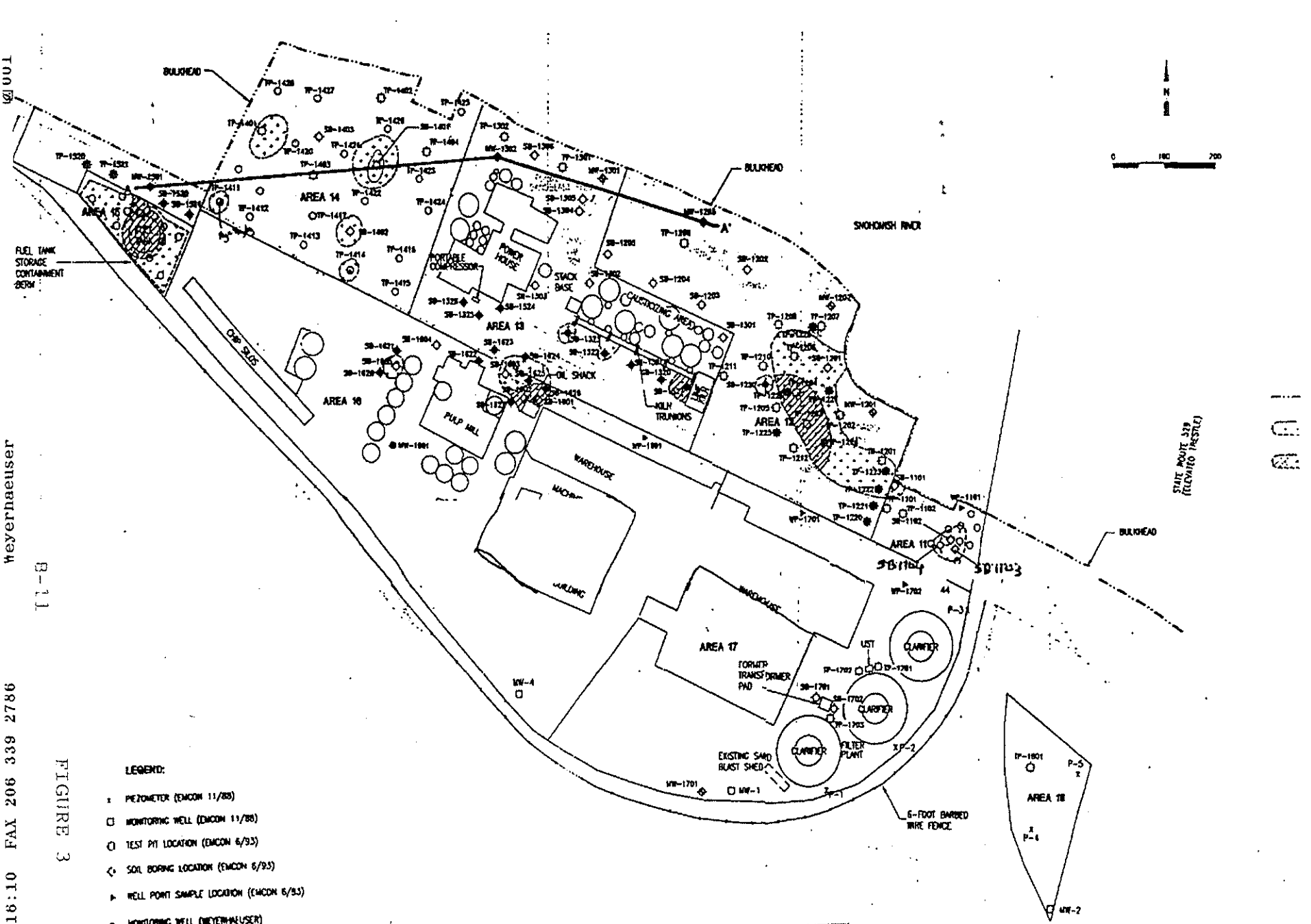
<u>October 1993 Monitoring Event.</u> - Monitoring Well Sampling. Eight ground water monitoring wells, no soil bores or temporary well points. Water from monitoring wells was analyzed for TPH-D, TPH-O(extended), PAHs, dissolved metals, and total metals. The results are given below.

TPH-D and TPH-O(extended) - Eight ground water samples were analyzed for TPH-D and TPH-O(extended). Samples range from <0.13 mg/l to .98 mg/l TPH-D and <.5 mg/l to .69 mg/l TPH-O(extended). One monitoring well, MW 1302, contained .98 mg/l TPH-D.

PAH and Semi-Volatiles - Six ground water wells were analyzed for semi-volatiles. Base neutral acid compounds below 10 ug/l were identified in three samples. Only two PAH compounds were identified above 10 ug/l. Acenaphthene was detected at 32 ug/l in MW-1302 and fluorene was detected at 13 ug/l in MW-1302.

Dissolved Metals (As, Cr, Pb, Hg) - Eight ground water samples were analyzed for dissolved metals and no Cr, Pb, Hg was found in the samples. Arsenic was found in 7 of 8 samples ranging from 3 to 130 ug/l.

<u>February 1994 Monitoring Event.</u> Monitoring Well Sampling. Eight ground water monitoring wells, no soil bore holes, or temporary well points. Water from monitoring wells was analyzed for TPH-D, TPH-O(extended), semi-volatile organics, and dissolved



LEGEND:

- PIEZOMETER (EMCON 11/88)
- MONITORING WELL (EMCON 11/88)
- TEST PIT LOCATION (EMCON 6/93)
- SOIL BORING LOCATION (EMCON 6/93)
- WELL POINT SAMPLE LOCATION (EMCON 6/93)
- MONITORING WELL (WEYERHAEUSER)
- MONITORING WELL (EMCON 12/93)
- SOIL BORING LOCATION (EMCON 3/94)
- TEST PIT LOCATION (EMCON 3/94)
- TEST PIT LOCATION (EMCON 3/94)
- BULKHEAD
- ESTIMATED LIMITS OF SOIL REMEDIATION (200 Mg/Kg TPH Soil Cleanup Level)

FIGURE 3

B-11

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To [redacted]	From S. Triolo
Co. Ecology	Co. Weyco
Dept.	Phone # 339-2871
Fax # 206-407-6902	Fax #

weyerhaeuser, Everett
west Site
Site Plan + Sampling

arsenic. Results are given below:

TPH-D and TPH-O(extended) - Seven ground water samples were analyzed for TPH-D and TPH-O(extended). Samples range from <.13 mg/l to 1.0 mg/l TPH-D and <.13 mg/l to .55 mg/l TPH-O(extended). Monitoring well, MW-1301, contained 1.0 mg/l TPH-D.

Dissolved Arsenic - Water from seven monitoring wells was analyzed for arsenic. Dissolved arsenic was found in all but one sample (MW-1701) and ranged from 3 to 96 ug/l.

Semi-volatiles - Water from six monitoring wells was analyzed for semi-volatile chemicals. Only two compounds, acenaphthene and fluorene, were found above 10 ug/l. Acenaphthene was detected at 32 ug/l and fluorene was detected at 13 ug/l, both in monitoring well MW-1302.

Soil Sampling Events.

The soil was examined in each of the eight units. The following contaminants have been discovered in soil at the Weyerhaeuser West Site Areas 11-18.

Area 11 Sandblast Fill. The soil was analyzed for TPH, total metals and leachable metals using the toxicity characteristic leachate procedure (TCLP). Fourteen samples were taken during two different sampling events. The following results were reported.

- TPH as diesel and oil were detected in 2 out of 14 samples at > 250 mg/kg TPH.
- No elevated TCLP metals were detected.
- Total metals results include Cr (11.1 to 2930 mg/kg), As (70.2 mg/kg), and Pb (659 mg/kg). No elevated concentrations of the other total metals were detected.
- One sample contained PCB Aroclor 1254 at 25 mg/kg level.

Chemicals which require remediation in Area 11 are TPH-O(extended), PCB's and chromium. Isolated hot spots of arsenic and lead will be removed with TPH remediation.

Area 12. Former Mill C. Sixteen soil samples were collected from 6 soil borings and 12 test pits on 6/93. All the samples were analyzed for TPH-D, TPH-O(extended), selected samples were analyzed for total metals (As,Cr,Pb,Hg), PCBs, VOCs, PAHs, PCP, and pH. Ten soil samples were collected from one soil boring and nine test pits on 3/94. The samples were analyzed for TPH-D, TPH-O(extended), selected samples were analyzed for total metals (As,Cr,Pb, Hg), PCB's, and VOC's. The following results were reported for both sampling events.

- TPH-O(extended) was detected in 7 samples (280-22,000 mg/kg).
- TPH-D was detected in 5 of the 14 samples (910-4200

mg/kg).

- o No elevated concentrations of total metals or PCB's were noted in the analyses.
- o One VOC (methyl ethyl ketone 14 mg/kg) was detected in one sample. Two other VOC compounds (acetone and carbon disulfide) at less than 1 mg/kg in two samples. All of the high VOC samples came from the 6/93 sample event.
- o PAH's or PCP's were not found in the three samples tested.
- o Soil pH was in the normal range (4.0 to 9.0).

Chemicals which require remediation in Area 12 are TPH-O(extended) and TPH-D.

Area 13 Powerhouse, Recovery, and Causticizing Areas. In 1991 approximately 30 yards of stained soil was removed from the area around lime kiln trunion number 4. An undetermined amount of contaminated material was left in place in 1991. Sampling in Area 13 during 1992, 1993, and 1994 discovered further areas of contamination. During 1992 and 1994 a total of 13 samples were taken adjacent the lime kiln trunions. The samples were analyzed for TPH-D and TPH-O(extended). The results are given below.

- o TPH-O(extended) was detected in 6 of the 13 samples (210-5100 mg/kg).
- o TPH-D was detected in 2 of 13 samples (270&4200 mg/kg).

In June of 1993 seven soil borings and two test pits were sampled in area 13. Soil borings were located near the compressor area and around the powerhouse. The samples were tested for TPH-D, TPH-O(extended), PCBs, PAHs, total metals and pH. The results are given below.

- o TPH-D and TPH-O(extended) were not detected in any samples.
- o PCB's were not detected in the one sample analyzed.
- o PAH's were not detected in the one sample analyzed.
- o No elevated concentrations of total metals were detected.
- o Soil pH was within the normal range for all samples.

Chemicals which require remediation in Area 13 are TPH-O(extended) and TPH-D.

Area 14 Northern Chip Storage. During June of 1993 six soil samples were collected from four test pits and two soil borings. In March of 1994, eighteen soil samples were taken from 18 test pits. All samples were tested for TPH-O(extended) and TPH-D, selected samples were sampled for total metals (Cr, As, Hg, and Pb), PCB's, and pH. The following results were reported for both sampling events.

- o TPH-O(extended) was detected in 6 samples (210-1100 mg/kg). TPH-D was detected in 1 sample (220 mg/kg).
- o No elevated concentrations of PCBs were detected.
- o Mercury was detected in 1 sample at 4.0 mg/kg. No elevated concentrations of the other total metals was detected.
- o Soil pH was 9.2 and 12.5 in 2 of 21 samples.

The chemicals which requires remediation in Area 14 are TPH and mercury.

Area 15 Fuel Tank Areas. During April and November 1991, approximately 300 cubic yards of petroleum hydrocarbon contaminated soil was excavated from the fuel tank area. In August of 1992, nineteen soil samples were collected from nineteen test pits within the fuel storage tank containment area. All samples were analyzed for TPH-D and TPH-O(extended). The results are reported below.

- o TPH-O(extended) was detected in fourteen samples (380 mg/kg - 5,600 mg/kg).
- o TPH-D was detected in eight samples (230-12,000 mg/kg).

In March 1994, four soil samples were taken from four soil borings located north and outside of the fuel containment. The four samples were analyzed for TPH-O(extended) and TPH-D. No contaminates were detected in the samples. Both TPH-O(extended) and TPH-D require remediation in area 15.

Area 16 Pulp Mill. During June 1993 and November 1994 twelve samples were taken from twelve soil borings. All samples were tested for TPH-D and TPH-O(extended). Eight samples of the twelve samples were tested for volatile organic compounds. The following results were reported for both of the sample events.

- o TPH-O(extended) was detected in three samples (250-1,400 mg/kg) and TPH-D was not detected.
- o Two volatile organic compound were found in one sample (xylene 250 mg/kg, ethylbenzene 48 mg/kg).
- o Soil pH was within normal ranges.

The chemicals that require remediation in the pulp mill area are TPH-O(extended), total xylenes, and ethylbenzene.

Area 17 Warehouse and Filter Plant. During November of 1991 approximately 22 tons of sandblast grit was excavated from the Filter Plant area near the former sandblast shed.
On September 1992, five soil samples were collected in the vicinity of the former sandblast shed in Area 17. The samples were analyzed for TCLP metals.

- o No elevated concentrations of TCLP metals were

detected.

On December 1992 six grab samples were collected from the surface soil in the vicinity of the former sand blast shed in Area 17. The six samples were analyzed for total metals (As, Cr, Pb, Hg, Ag, Ba, Cd, and Se).

- Hg was detected in one sample at 1.4 mg/kg, and Pb was detected in one sample at 1000 mg/kg. Ag and Cd were not detected. All other compounds were detected but at levels below background concentrations.

In June of 1993, two soil samples were collected from two soil borings and three soil samples were collected from three soil test pits. Selected samples were analyzed for TPH-O(extended), TPH-D, TPH-G, BTEX, PCB's and total Pb. The results are given below:

- TPH-D, TPH-O(extended), and TPH-G were not detected.
- BTEX was not detected near the former underground storage tank.
- PCB's were not detected in the three samples tested.
- Elevated concentrations of lead were not detected.

No chemicals were detected in the sampling event that require cleanup in Area 17. No cleanup is required in this area.

Area 18 Former White Liquor Storage. During June of 1993, one soil sample was collected from one test pit. The sample was analyzed for TPH-D, TPH-O(extended), and pH. No contaminants were detected. No cleanup is required in this area.

3.2 REMEDIATION AREAS

The primary soil contaminant present on the West Site is oil range petroleum hydrocarbons. TPH-O(extended) was found in each of the contaminated areas. Other contaminants identified in limited quantities in hot spots above MTCA method A soil limits included PCBs, ethylbenzene, total xylenes, chromium, and mercury. The chart below describes areas that will require remediation.

Remediation Area	Contaminant
Area 11 Sandblast Fill	TPH-O(extended), PCBs, Chromium
Area 12 Former Mill C	TPH-O(extended)

Area 13 Powerhouse, Recovery, and Causticizing	TPH-O(extended)
Area 14 Northern Chip Storage	TPH-O(extended), & Mercury
Area 15 Fuel Tank Area	TPH-O(extended)
Area 16 Pulp Mill	TPH-O(extended), ethylbenzene, & total xylenes

4.0 MEDIA CLEANUP LEVELS

4.1 Selection of Method for Establishing Cleanup Levels

The Model Toxics Control Act Cleanup Regulation provides three methods for determining cleanup levels at a contaminated site. The methods are known as Method A, Method B, and Method C. Method A applies to relatively straight forward sites that involve only a few hazardous substances. The method defines cleanup levels for 25 of the most common hazardous substances. The method also requires that the cleanup meet promulgated federal and state regulations such as the maximum contaminant levels established by the clean water act. Method B is a standard method that can be used at all sites. The clean up levels are set using a site risk assessment which focuses on site characteristics or concentrations of individual hazardous substances established under applicable state and federal laws. Method C is similar to Method B. The main difference in the two methods is that the life time cancer risk is set at a lower number. The method can be only used when either Method A or Method B are technically impossible, the site is defined as an industrial site, or where is attainment of Method A or Method B cleanup levels has the potential for creating a significantly greater overall threat to human health and the environment. In addition, Method C also requires that the person undertaking the action comply with all applicable state and federal laws.

In addition to a cleanup standard, the Weyerhaeuser Everett site will have a cleanup action level established for total petroleum hydrocarbons. The cleanup action level determines at what point the remediation is considered complete. The action level will determine the amount of soil remediated at the site.

The Weyerhaeuser West Site is considered a routine site where Method A industrial soil standards can be used along with Method A ground water standards. The site is considered an Industrial site because it is zoned heavy industry currently and for the foreseeable future. The individual cleanup standards set for

each contaminant of concern are discussed below.

4.2 Ground Water Cleanup Standards

The ground water cleanup levels at the Weyerhaeuser West site were set according to WAC 173-340-720, Ground Water Cleanup Standards. Two contaminants of concern were found above MTCA method A standards in approved monitoring wells: arsenic and petroleum hydrocarbons. The method A standard is given below. The ground water point of compliance for the site is the plant boundary.

Parameter	Cleanup Level	Basis
Arsenic	5.0 ug/kg	MTCA METHOD A
TPH	1000 ug/kg	MTCA METHOD A

4.3 Soil Cleanup Standards

The method A cleanup standard for industrial soils (WAC 173-340-745(2))will be used for the following contaminants found on the site. Individual cleanup standard levels are given below.

Parameter	Cleanup Level	Basis
PCBs	10 mg/kg	MTCA A
Chromium	500 mg/kg	MTCA A
Mercury	1.0 mg/kg	MTCA A
Ethylbenzene	20 mg/kg	MTCA A
Total Xylenes	20 mg/kg	MTCA A
TPH-D or TPH-O(extended)	200 mg/kg	MTCA A

For the contaminant TPH a cleanup action level of 1000 mg/kg TPH or excavation to the surface of ground water is established at the site. TPH will be analyzed using a TPH-D extended method. TPH action level in Area 12 and Area 14 can be modified with Ecology on site approval to 2,500 mg/kg if visually observable amounts of organic material are found during the excavation or quantified by pervious investigative work.. When the modified TPH action level is used the TPH analysis will use an silica gel/acid cleanup to attempt to eliminate organic interference. The two different TPH action levels will be used to direct

excavation of the contaminated soils. Soils left on site above the MTCA method A industrial soil cleanup standard of 200 mg/kg will noted in the property deed.

SUMMARY OF ALTERNATIVE CLEANUP ACTIONS

5.1 INTRODUCTION - GENERAL CLEANUP REMEDIES

This section of the CAP summarizes the cleanup actions considered by Weyerhaeuser in the work plan and subsequent submittals. The work plan outlines four different cleanup remedies. Based on the type of contaminant present in the cleanup area, several different cleanup remediation options were examined. The remedies all focus on petroleum hydrocarbon remediation because approximately 95 % of the contaminated soils found on site are contaminated by heavy-end long chain petroleum products. Because the overall volume of soils containing other contaminants is small, the only technology considered for these soils was landfilling. The following four basic cleanup technologies were examined to remediate TPH contaminated soils. The technologies evaluated are: excavation and off-site disposal, on-site thermal desorption, off-site asphalt incorporation, and on-site bioremediation. Each of the TPH remediation technologies is described below.

Landfill Disposal

Soil contaminated with TPH and PCBs can be disposed of at an Ecology approved solid waste landfills. The landfill needs to meet the minimum functional standards design criteria. The alternative would require transportation of the contaminated material to the landfill and placement of cleanup backfill. The estimated costs associated with the excavation and off-site disposal include $3.00/ton for excavation and handling, $38.00 /ton for disposal, and $7/ton for importing, backfilling, and compacting clean backfill. The estimated total cost per ton is $48.00. The advantages of this technology are described below.

Advantages	Disadvantages
Short time frame to complete	Long term liability still exists
All contaminants allowed	Clean backfill needs to be imported
All soil types allowed	
Low cost	
Secure facilities	

Thermal Desorption

Petroleum contaminated soils may be remediated by volatilizing or evaporating hydrocarbon products from the soil and then oxidizing them in the discharge air stream using a thermal desorption unit. The process unit is portable and is set up temporarily on the site. The treated soil will meet MTCA standards and can be used for backfill.

The estimated costs associated with the process include $ 5.00/ton for excavation and backfilling, and $ 50.00/ton for treatment. The total cost is estimated to be $ 55.00/ton.

Advantages and disadvantages are described below.

Advantages	Disadvantages
Short time requirement	No treatment of PCB or metals
Reduction of liability	Increase cost due to soil type
Use of recycle technology	Need for air permit
	Public concerns regarding incineration

Asphalt Incorporation

Asphalt incorporation involves combining hydrocarbon contaminated soils with stone aggregate to produce asphalt at an off site asphalt plant.

The estimated costs associated with off-site asphalt incorporation include $3.00/ton for excavation, $4.00-$7.00/ton for transportation, $55.00/ton for asphalt production, and $ 7.00-$8.00/ton for imported backfill. The total estimated cost is $70.00/ton.

The advantages and disadvantages are summarized below.

Advantages	Disadvantages
Short time period	No PCB or metals treatment
Recycle technology	Use of imported backfill
	High cost

Bioremediation

Petroleum contaminated soils can be remediated by using microorganisms to consume the contaminants. The soil is typically spread out in lifts of 12 inches in thickness. The lifts are aerated by tilling, and the microorganisms are maintained by the addition of nutrients and moisture.

Estimated costs for the biotreatment process are $40.00/ton for treatment, $7.00-$8.00/ton for excavation and transportation to the treatment area, and $7.00-$8.00/ton for importing backfill. The total estimated costs are $60.00/ton.

The advantages and disadvantages are outlined below.

Advantages	Disadvantages
TPH destroyed	Long time frames for heavy-end hydrocarbons
Treatment on site	Uncertainty of treatment efficiency for heavy-end TPH
	Metals not treated
	Imported backfill required
	Large areas required

5.2 REMEDIAL ACTION ALTERNATIVES

Four different potential cleanup action alternatives were developed for the site. Most of the cleanup action alternatives consisted of a combination of the four remedial action technologies. The final alternative also has to be timely, since Weyerhaeuser needs to transfer the site to a new owner in 1995. Bioremediation was eliminated from consideration due to its limited ability to treat long chain oil range hydrocarbons in a timely manor. Each of the four cleanup alternative is discussed below.

Alternative 1 - Excavation and Landfill Disposal

This alternative would consist of excavating all contaminated soils exceeding the MTCA cleanup standard (200 ppm TPH) from the six identified areas and disposing the soil in an approved landfill within 200 miles of the site. Approximately 16,900 cubic yards of soil exceed the standard. Excavation would be

conducted to ground water at the site. Excavated soils would be loaded into rail cars or trucks for shipment to the landfill. Excavations would be filled with imported backfill.

Some deed restrictions may be required due to contaminated ground water. Ground water monitoring would not be required because all soils exceeding method A standards would be removed.

The estimated capital costs for this alternative are $1,220,000. This does not include monitoring costs or maintenance costs.

Alternative 2 - Excavation and Thermal Desorption/Landfill Disposal

This alternative would require excavation of all soil exceeding the cleanup standard from each of the six contaminated areas shown in Figure One. Only soils containing solely petroleum hydrocarbons would be treated on site by thermal desorption. Soils containing PCBs or metals would be disposed of in an approved landfill within 200 miles of the site. In most areas, soil excavation would be conducted to the depth of shallow ground water at the site.

Soil treated by thermal desorption would be stockpiled and then used as backfill. Metals and PCB contaminated soils would be transported by truck or rail to the landfill.

Deed restrictions on withdrawal of ground water would be required. Ground water monitoring would not be required because all soils exceeding method A standards would be removed.

Costs for this alternative consist of capital costs only. No operations and maintenance cost have been included. The estimated total capital cost $1,400,000

Alternative 3 - Excavation and Asphalt Incorporation/Landfill Disposal

This alternative would consist of excavating contaminated soils exceeding the method A cleanup standard from the six contaminated areas. Soils containing petroleum hydrocarbons only would be transported off site to an asphalt batch plant. Soils containing PCBs and metals would be disposed of in a regulated landfill within 200 miles of the site. In most areas soil excavation would be conducted to ground water. Soil to be incorporated into asphalt would be stockpiled near the excavation area. The soil would be screened and shipped to the asphalt plant. Soil with high levels of metals or PCBs would be shipped by rail to a landfill. Excavations would be filled with clean imported backfill.

Deed restrictions on ground water would be necessary at the site. Monitoring of ground water would not be necessary.

Costs for this alternative consist of capital costs only. No ongoing operational or maintenance costs have been included. The estimated total cost is $1,900,000.

Alternative 4 - Excavation to a Set Action Level and Landfill Disposal

This alternative would consist of excavation of contaminated soils which exceeds a action level of 2,500 mg/kg TPH-O(extended). The alternative would leave contaminated material on site that exceeds the cleanup standard of 200 mg/kg TPH-O(extended). After excavation the resulting pit would be filled with clean imported backfill. The contaminated soils would be shipped by rail or truck to an approved landfill. The clean back fill would serve as a surface cover and prevent direct contact with the material.

Institutional controls would be required in the form of a deed restriction limiting further site use to industrial activities and preventing shallow ground water withdrawal for drinking purposes. The remedy would also require a ground water monitoring program to determine the effectiveness of the removal of the contaminated source material.

Costs for this alternative consist of capital costs of $1,220,000 with a cleanup action level of 200 mg/kg TPH. This cost is dependent on the cleanup action level chosen for the site. At 2,500 mg/kg TPH action level the capital costs drop to $216,000. Annual ground water compliance monitoring is estimated to cost $7,000 per year and would be reduced at year four.

SELECTION OF CLEANUP ALTERNATIVE

6.0 INTRODUCTION

The cleanup strategy proposed by Ecology is similiar to alternative 4 proposed by Weyerhaeuser. This strategy assumes that the area around the site will be used for industrial purposes for the foreseeable future. Ecology used remedy 4 proposed by Weyerhaeuser with a cleanup action level of 1,000 mg/kg TPH-O(extended). Weyerhaeuser proposes a cleanup action level of 2,500 mg/kg TPH-O(extended). The rational for Ecology cleanup action level 1,000 mg/kg TPH-O(extended) is given below along with a more detailed description of the remedy.

The Weyerhaeuser site is located bordering the Snohomish River. Data from a closed landfill off site indicate that the upper aquifer of the site may be partially connected to the Snohomish

River system in the subsurface. The shallow upper aquifer is not separated from lower water bearing units by a high permeability unit. It is separated by a interbedded silt and sand unit of unknown permeability. No geotechnical data has been shown to document the permeability of the unit. Current policy for the cleanup of petroleum contaminated soils directs the Ecology site manager to use the method A cleanup standard of 200 mg/kg unless the site does not pose a threat of cross media contamination or a human health threat through direct exposure. At the completion of remediation the Weyerhaeuser site will not pose a human direct contact threat due to the placement of a clean soil cover but will still pose an environmental threat to the aquifer below the surface fill and potentially to the Snohomish River. Currently two monitoring wells on site show traces of petroleum hydrocarbons. Several soil boreholes and temporary well point water analysis show TPH levels as high as 2 mg/kg. All but one monitoring well show arsenic contamination. The upper shallow aquifer while not a source of drinking water is still a transport avenue to the Snohomish River. Because of this fact the suggested cleanup action level of 2,500 mg/kg TPH is not acceptable at the site.

6.1 SELECTED CLEANUP ACTION

The proposed cleanup action consists of excavation of soils to an action level of 1,000 mg/kg TPH-O(extended), disposal of soils in an approved landfill, capping site with clean fill, and continued groundwater monitoring. In areas 12 and 14 an alternative cleanup level of 2,500 mg/kg TPH using an silica gel/acid cleanup can be established if there is visually observable organic material present in the soil. Specifically:

--- Dismantle, and scrap a 577,000 gallon fuel oil tank in Area 15.

--- Removal of approximately 7,500 cubic yards of contaminated soils in Areas 11, 12, 13, 14, 15, and 16.

--- Conformational sampling to determine if action levels have been met in each area.

--- Remove contaminated soil to a landfill approved to accept petroleum contaminated soils.

--- Fill excavations with clean imported backfill.

--- File institutional controls to prevent withdrawal of ground water from the site for domestic purposes and restrict disruption of TPH contaminated soils.

--- Continued ground water monitoring.

6.2 GROUND WATER MONITORING

Since contaminated soils and ground water will remain on site, a conformational monitoring program for TPH, and arsenic will be implemented as part of the cleanup. The proposed monitoring plan consists of quarterly monitoring for the first three years with annual monitoring for years four and five. At the end of the five year period Ecology and Weyerhaeuser will exchange proposals to amend the consent decree with regard to whether to continued monitoring is necessary and, if so, what constitutes an appropriate schedule.

6.3 SCHEDULE

The proposed cleanup is scheduled to occur in the fall of 1994. If approved, the initial soil removal will begin in October of 1994. It is anticipated that the construction phase of the project will be complete during the winter of 1994/95. Final as built construction diagrams, project completion report, and monitoring plans will be delivered to Ecology after the completion of construction in the spring of 1995. Ground water monitoring will begin in 1995 and continue until 1999.

EXHIBIT C

Project Schedule
Weyerhaeuser West Site

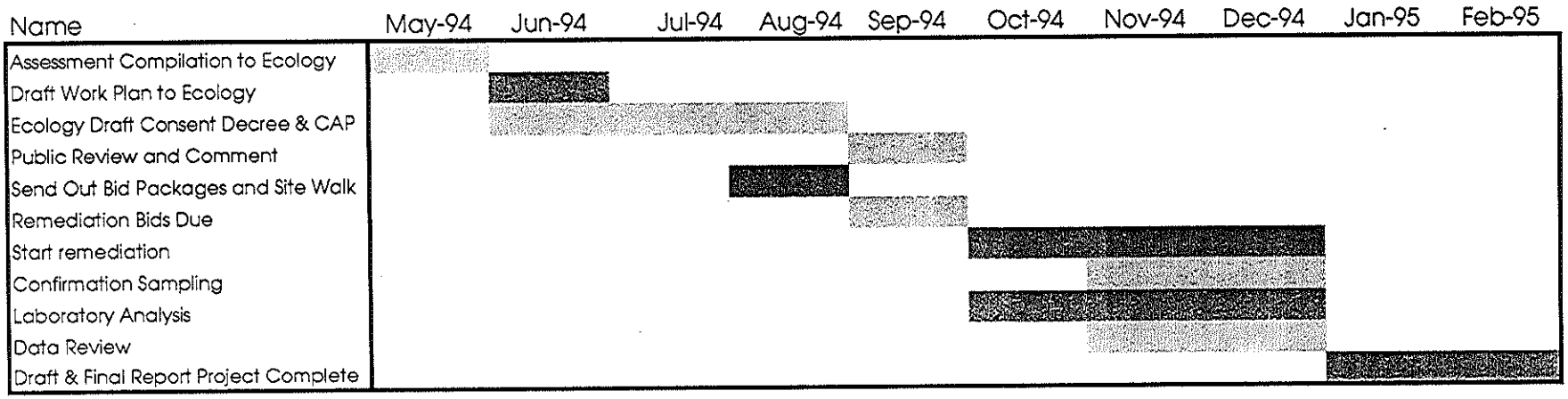

Exhibit D

I. INTRODUCTION AND OVERVIEW OF PUBLIC PARTICIPATION PLAN

The Washington Department of Ecology (Ecology) is committed to providing public participation opportunities during the investigation and cleanup of hazardous waste sites. The public participation plan is intended to promote public understanding of Ecology's responsibilities, planning activities and remedial activities at the Weyerhaeuser Everett West Site (Kraft pulp mill) hazardous waste site. It also provides an opportunity for Ecology to learn information, from the public, that will enable the department to develop a comprehensive cleanup plan that is protective of both human health and the environment.

A. This public participation plan for the Weyerhaeuser Everett West cleanup site covers activities from June 1994 through October 1994 during the public notice of the site draft cleanup action plan and consent decree for cleanup. It has been tailored to the needs of the public based on the stage and nature of the cleanup, the level of public concern, and the risks posed by the site.

B. The Weyerhaeuser Everett West Site is located northeast of the city of Everett along the bank of the Snohomish River. The site consists of 35 acres of industrial property which is the western portion of a larger Weyerhaeuser parcel. The site consists of a former kraft pulp mill complex that was closed in 1992 and several wood processing complexes that were closed in the late 1970's and 1980's.

The major contaminant of concern on the site is petroleum hydrocarbons. Contaminated soils exist in multiple locations throughout the mill site. Other contaminates which are found in soil on the site are mercury, PCB's and chromium. Each of these contaminants is found with hydrocarbon contamination and will be cleaned up along with the hydrocarbons. The ground water on the site contains total petroleum hydrocarbons up to 1 mg/l and arsenic above MTCA cleanup levels.

The Department of Ecology has responsibility for the development of this plan. Both Ecology and Weyerhaeuser mailing lists were used in the public participation effort.

C. The purpose of the public participation effort and of this plan is to assure that the affected public and governmental agencies are kept informed as the studies proceed and that each has an opportunity to contribute information regarding the site and to comment on the study and cleanup activities.

The City of Everett, local community action groups and interested citizens were placed on the site mailing list and contacted using the site fact sheet.

II. SITE DESCRIPTION

A. Land Use. The Weyerhaeuser West Site consists of real property which is owned by Weyerhaeuser Company and located at 101 East Marine View Drive, Everett, Washington. The site is located northeast of downtown Everett and consists of 35 acres zoned M-2 heavy manufacturing, by the city of Everett. The nearest residences live above the site on a bluff approximately 1,000 feet to the south. The nearest public facilities, Everett Community College, Hawthorne and Whittier Schools are located up hill approximately one mile south of the site.

B. The preferred alternative in site cleanup is excavation of soils containing total petroleum hydrocarbons above an action level of 1,000 mg/kg. The excavated soils will be either trucked or moved by rail to a landfill approved for petroleum contaminated soils. Soils which contain chromium, PCBs and mercury above cleanup standards will be removed to an Ecology approved landfill. Excavations will be filled with clean soil. Truck traffic will be restricted to arterial roads during normal working hours. Areas on site which have contamination above action levels will be deed restricted and no domestic ground water withdrawals will be permitted from the contaminated shallow aquifer.

III. PUBLIC PARTICIPATION ACTIVITIES

The public participation plan for Weyerhaeuser Everett West Site will consist of the following activities:

A A 30 day public comment period will be held for the draft cleanup action plan and consent decree, beginning September 2, 1994 and ending October 1, 1994.

B. A public hearing on the Consent Decree shall be held on September 19, 1994 at 7:00 PM at Everett Community College, Parks Building - Conference Room A & B, Everett, Washington. Notice of the public hearing will be advertized in the Everett Herald and through a fact sheet sent to interested parties.

C. Notification of the potentially affected vicinity, which includes: the mill site and neighborhood near the mill site. The Northwest Regional Office, Everett ASARCO smelter and Weyerhaeuser mailing lists will be utilized in contacting nearby neighborhood members.

D. Advertising the public comment period with a legal notice in the Everett Herald on September 2, 1994.

E. The public will be provided copies of the signed SEPA documents, consent decree and draft cleanup action plan for review. Extra copies of the fact sheet are available at the following locations:

Department of Ecology
Industrial Section
300 Desmond Drive
Post Office Box 47706
Olympia, Washington 98504-7706

Attn: Paul Skyllingstad

Phone Number: 206 407-6949
FAX: 206 407-6949

Everett Public Library
2702 Hoyt
Everett, Washington

Northwest Regional Office
3190 - 160th SE
Bellevue, Washington

F. All comments received will be retained in the Ecology site files. Responses to comments received on documents circulated for public comment will be compiled in a "responsiveness summary" that will be sent to those who submit written comments and to the designated information repositories. Notice of availability will be sent to those on the site mailing list.

G. Persons requesting to be placed on a mailing list for the site will be provided with updates on site activities as new information becomes available.

H. Should there be need for additional public participation activities, the public shall be notified through advertisement in the Everett Herald plus a fact sheet mailing utilizing the site mailing list. This public participation plan will be updated and delivered to the information repositories listed above.

I. Public notice announcements regarding the site will be placed in the Ecology Site Register for each comment period.

J. A press release will notify media of the public comment period and public hearing.

Exhibit E

SITE DESCRIPTION AND SAMPLE DATA SUBMITTAL REQUIREMENTS
April 11, 1994 Version

1. Media

Required data must be submitted on MS-DOS[1](version 5) or compatibly formatted diskettes. The diskettes may be 5 1/4 inch (or 3 1/2 inch) either: double sided, double density; or double sided, high density.

2. Data Formats

The SITE DESCRIPTION FILE, FIELD SAMPLE FILE and the LABORATORY SAMPLE FILE are quote, comma delimited ASCII files used as the standard format for transferring sample data to and from Ecology (LOTUS WK1 files and Ashton Tate DBF files may be substituted for ASCII files). The files will include the fields in the format and order listed (C=Character, N=Numeric, D=date[Character may be substituted in non DBF or WK1 format]).

The following Appendices are attached to standardize information entered into required files (see following appendices):

A. Matrix Codes

B. Sample Source Codes

C. Collection Method Codes

D. Chemical Data Dictionary (Standardizes Spelling, STORET P-codes., etc entered into the SAMPLE ANALYSIS FILE.

E. Laboratory Qualifiers

E. State Plane Zones (N or S)
(NOTE: Copy of RCW 58.20 provided for reference)

F. County Fips Codes

3. Submittal
Computer diskettes containing the SITE DESCRIPTION FILE, FIELD SAMPLE FILE and/or the LABORATORY SAMPLE FILE, clearly labeled for Project and Originator shall be submitted in duplicate, along with a backup hard copy of the diskette contents.

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[1] Trademark of the Microsoft Corporation

Washington State Toxics Cleanup Program Data Submittal File Formats

FIELD DEFINITIONS FOR SITE DESCRIPTION FILE

FIELD	TYPE	WIDTH	DEFINITION
REP_DATE	D	10	Reporting date (mm/dd/yyyy).
REP_NAME	C	48	Reporting entity, data submitted by.
PRJ_NAME	C	48	Project, site, or facility name.
STA_TYPE	C	12	Station type (Ground water, Surface water, Sediment, Soil, Sludge, Biological or Air).
STA_USE	C	1	Well use (USGS codes) O=observation, W=water withdrawal, X=waste disposal, D=drain, T=test hole, E=geothermal, P=oil/gas, U=unused, R=recharge, Z=destroyed.
WTR_USE	C	1	Water use (USGS codes) W=water quality/level monitoring, D=dewatering, N=industrial, S=stock supply, B=bottling, I=irrigation, Q=aquaculture, U=unused, C=commercial supply, H=domestic supply, P=public supply, J=industrial cooling, F=fire protection, Z=other.
DATA_REL	C	1	Data Reliability (USGS codes) C=field checked, L=poor location, U=unchecked.
STA_ID	C	12	Station or Well ID number.
PRI_STA	C	15	Ecology primary station code. To be obtained from Ecology TCP.
SEC_STA1	C	12	Additional station code (previous well numbers, alternate or other well designations).
SEC_STA2	C	12	Additional station code (if any).
SEC_STA3	C	12	Additional station code (if any).
STATE_FIPS	C	2	State FIPS code (WA=53).
COUNTYFIPS	C	3	County FIPS code (use state county code, Appendix F).
STATE_CHAR	C	2	State (WA).
COUNTYCHAR	C	16	County.
OWN_NAME	C	30	Sampling location owner's name.
OWN_DT	D	10	Date of ownership of well (mm/dd/yyyy).
OWN_ADD	C	60	Address of owner.
DRILLER	C	30	Name of Driller.

FIELD DEFINITIONS FOR SITE DESCRIPTION FILE

FIELD	TYPE	WIDTH	DEFINITION
STA_DESC	C	48	Activity Site, Sample location or Well location description (for example: "East of Bldg. 2," or "SE corner, intersection 6th and Seneca").
LOC_METHD	C	48	Method of determination of station location coordinates (Note: survey to known horizontal datum is required.)
LAT	N	8	Latitude OPTIONAL (degrees-minutes-seconds-tenths).
LONG	N	9	Longitude OPTIONAL (degrees-minutes-seconds-tenths).
STPCO_NORT	N	12	Northerly state plane coordinates REQUIRED (nearest ft.).
STPCO_EAST	N	12	Easterly state plane coordinates REQUIRED (nearest ft.).
STPCO_ZONE	C	1	State plane coordinates: state plane zone REQUIRED (N or S).
LAND_NET	C	20	Land net location of well (Township, Range, Section, 1/4-1/4 Sec.) Use USGS 1/4-1/4 section alphabetic designator A through R OPTIONAL.
UTM_NORTH	N	9	UTM grid system coordinates: North (meters) OPTIONAL.
UTM_EAST	N	8	UTM grid system coordinates: East (meters) OPTIONAL.
UTM_ZONE	C	2	UTM grid zone.
MAP NAME	C	24	Name of USGS map, scale, and date covering the sampling location (e.g., Yakima 100K 1977).
BORE_DEP	N	8	Depth of original hole drilled, if applicable (nearest 0.01 ft. or equivalent).
WELL_DEP	N	8	Well depth (nearest 0.01 ft. or equivalent).
WTR_ELEV1	N	8	Water level elevation at time of installation (nearest 0.01 ft. or equivalent).
WLEV_DAT1	D	10	Date of water level elevation measurement (mm/dd/yyyy).
MEAS_ELEV	N	8	Measuring point (reference point) elevation (nearest 0.01 ft. or equivalent.
ELEV_UNITS	C	12	May be "FEET," "METERS," "CENTIMETERS," "FATHOMS," etc.
MEAS_DESC	C	48	Measuring point description

FIELD DEFINITIONS FOR SITE DESCRIPTION FILE

FIELD	TYPE	WIDTH	DEFINITION
DATUM	C	48	Measuring point datum (the source of the altitude used to survey in the sampling location altitude, i.e., City of Tacoma Sewer Survey 1921).
LEV_COMM	C	240	Comments, depth, and water level data.
ALTITUDE	N	8	Approximate land surface elevation XXXXX.XX (ft.) at the Station Location.
DEPTOWTR1	N	8	Water depth at time of installation (nearest 0.01 ft. or equivalent).
CONST_DT	D	10	Date of installation (mm/dd/yyyy).
MOREINT	C	1	More than one open interval (Y/N).
UP_DEPTH	N	8	Depth to top of open interval (ft. below measuring point).
LOW_DEPTH	N	8	Depth to bottom of open interval (ft. blow measuring point).
DEPT_UNITS	C	12	May be "FEET," "METERS," "CENTIMETERS," "FATHOMS," etc.
CONST_COMM	C	240	Comments, construction details.
MTD_CON	C	1	Method of construction (USGS WATSTORE codes) A=air rotary, B=bored/augured, C=cable tool, D=dug, H=hydraulic rotary, J=jetted, P=air percussion, T=trenching, V=driven, W=drive wash, R=reverse rotary, X=mud rotary, Z=other.
FILT_LEN	N	5	Length of filter pack (nearest 0.01 ft. or equivalent).
FILT_MAT	C	48	Type of filter pack material and size of material (e.g., Sand 200 mesh).
DIA_BOR	N	8	Boring diameter (in.).
DIA-CAS	N	8	Casing diameter (in.).
CAS_MAT	C	1	Casing material (USGS WATSTORE codes) B=brick, C=concrete, D=copper, F=teflon/fluorocarbon, G=galvanized iron, I=wrought iron, M=other metal, P=pvc/plastics, R=rock/stone, S=steel, T=tile, W=wood, U=coated steel, Z=other.
DIA_OPN	N	6	Diameter of open interval (in.).
LEN_OPN	N	6	Length of open interval (nearest 0.01 ft. or equivalent).
TYP_OPN	C	1	Type of open interval (USGS WATSTORE codes) P=perforated/slotted screen, L=louvered/shuttered screen, S=screen (unknown type), F=fracture, R=wire wound, M=mesh, T=sand point, W=walled, X=open hole, Z=other.

FIELD DEFINITIONS FOR SITE DESCRIPTION FILE

FIELD	TYPE	WIDTH	DEFINITION
TYP_OMT	C	1	Material type, open interval (USGS WATSTORE codes) R=stainless steel, F=teflon/fluorocarbon, G=galvanized iron, P=pvc/plastic, B=brass/bronze, W=wrought iron, S=steel, T=tile, C=concrete, M=other metal, Z=other.
INT_COMM	C	240	Comments, open interval.
LOG_AVAIL	C	1	Well log data available? (Y/N).
TYP_LOG	C	10	Type of well log (USGS WATSTORE codes) A=time, B=collar, C=caliper, D=driller, E=electric, F=fluid conduction, G=geologist, H=magnetic, I=induction, J=gamma ray, K=dip meter, L=lateral log, M=microlog, N=neutron, O=microlateral log, P=photo/video, Q=radioactive, S=sonic, T=temperature, U=gamma gamma, V=fluid velocity, X=core, Z=other.
LOG_DOC	C	240	Log data source documents (e.g., Remedial Investigation Report).
OTHER_DOC	C	240	Other data source documents.
LOG_LOC	C	60	Location of well log (e.g., Ecology Southwest Regional Office).
AQUI_TEST	C	1	Aquifer testing performed (Y/N).
PUMP_DATA	C	240	Pump data such as: Type, Manufacturer, Horsepower, and depth set.
ANDAT_AVAL	C	1	Analytical or Statistical data available (Y/N).
PROGRAM	C	9	Ecology program (TCP, WQFA, WQ, other).
GEN_COMM	C	240	General comments.
HUCODE	C	8	See US Geological Survey Hydrologic Unit Map 1974-Washington.
AGN_USE	C	1	Agency use (USGS codes) A=active, I=inactive, 0-inventory only.

END OF SITE DESCRIPTION FILE

FIELD DEFINITIONS FOR FIELD SAMPLE FILE
***All Fields Required**

FIELD	TYPE	WIDTH	DEFINITION
PRI_STA	C	15	Ecology Monitoring station No. will be assigned by Ecology TCP Program.
STA_ID	C	12	Site or monitoring station ID no. or other designation.
X_LOCATION	C	12	Surveyed coordinates reported in the State Plane Coordinates (to the nearest foot).
Y_LOCATION	C	12	Surveyed coordinates reported in the State Plan Coordinates (to the nearest foot).
STPLNZONE	C	1	N = North; S = South
LO_DAT_U	C	5	Year of reference datum either 1929 or 1983 and which system L Lat Long or S for State Plane Coordinate System.
LOC_DATUM	C	48	Reference datum from map or survey, e.g., 1983 North American Datum (see RCW 58.20).
DEPT_WATER	N	8	Depth to water (in 0.01 ft. or equivalent) at time of sampling.
UP_DEPTH	N	7	Depth (nearest 0.01 ft. or equivalent) to the top of the interval sampled (e.g., top of well screen or core interval).
LOW_DEPTH	N	7	Depth (nearest 0.01 ft. or equivalent) to the bottom of the interval sampled (e.g., bottom of well screen or core interval).
DEPT_UNITS	C	12	May be "FEET," "METERS," "CENTIMETERS," "FATHOMS," etc.
WTR_ELEV	N	8	Water level elevation (in 0.01 ft. or equivalent) at the time of sampling.
AGENCY	C	8	Agency requesting sampling data.
SAMPLE_DAT	D	8	Date of well sampling (mm/dd/yyyy).
SAMP_TIME	C	4	Time of well sampling in military time.
SAMPLE_ID	C	8	Sample ID code or number.
FILTERED	L	1	Was the sample field filtered? Yes(Y) or No(N).
ANAL_MTHOD	C	15	EPA analysis method descriptions (i.e., EPA Method 601).

FIELD DEFINITIONS FOR FIELD SAMPLE FILE
*All Fields Required

FIELD	TYPE	WIDTH	DEFINITION
MEAS_ELEV	N	8	Surveyed elevation of the measuring point used to determine water level depths and elevations (nearest 0.01 ft. or equivalent).
ELEV_UNITS	C	12	May be "FEET," "METERS," "CENTIMETERS," "FATHOMS," etc.
MEAS_DESC	C	48	Description of the well measuring point used (e.g., top of casing, file mark on casing, etc.)
DATUM	C	48	Vertical datum used to reference elevations (e.g., MSL and source/date of information).
MATRIX	C	2	Type of sample; water, sediment, soil, other (from Appendix A).
SOURCE_COD	C	2	Physical environment sampled (from Appendix B).
COLLECTMET	C	2	Collection method code (from Appendix C).
FIELD_PH	N	5	The pH value taken at time of sampling (e.g., 11.67).
FIELD_COND	N	7	The conductivity value in umhos.
FIELD_TEMP	N	5	The field temperature of the sample in degrees Celsius.
PURGE_METH	C	1	Purging method: B = Bail, P = Pump.
PURGE_VOL	C	2	Number of boring volumes removed prior to sampling (liquid).
PRJ_NAME	C	48	Project, site, or facility name.
COMMENTS	C	50	General comments.

END OF FIELD SAMPLE FILE

FIELD DEFINITIONS FOR LABORATORY SAMPLE FILE*
All Fields Required

FIELD	TYPE	WIDTH	DEFINITION
PRI_STA	C	15	Ecology Monitoring Station No. will be assigned by Ecology TCP Program.
STA_ID	C	12	Site or station ID no. or other designation.
SAMPLE_DAT	D	10	Date of sampling event (mm/dd/yyyy).
ANALYZ_DAT	D	10	Date the sample was analyzed (mm/dd/yyyy).
SAMPLE_ID	C	15	Sample ID code or no.
LAB_NAME	C	20	Laboratory performing analysis.
LABSAMP_ID	C	15	Sample number assigned by the laboratory.
CONSTITUEN	C	30	Chemical constituent names as defined in Ecology's Chemical Dictionary (see attached Appendix D).
CAS_ID	C	12	Chemical Abstract Systems ID (see Appendix D).
P_CODE	C	5	STORET Parameter Code (see Appendix D).
RESULT	N	12	Detected chemical concentration result.
UNITS		10	Units of measurement (e.g., ug/Kg not PPB or PPM).
QUAL	C	4	Contract Laboratory Program chemical data qualifiers (such as U, J, R, UJ, etc.). Non-Contract Lab Program qualifiers such as less-than signs ("<") or asterisks, are not acceptable (see Appendix E).
QA_QUAL	C	4	Qualifier associated with QA Review of Lab Report (see Appendix E).
LIMIT	C	10	Lab method detection limit.
DILUTION	N	6	Amount the sample was reduced and diluted to accommodate analysis (i.e., 10x, 20x).
FILTERED	L	1	Was the sample lab filtered? Yes(Y) or No(N).
ANAL_MTHOD	C	15	EPA analysis method descriptions (i.e., EPA Method 601).
MATRIX	C	2	Type of sample; water, sediment, soil, other (from Appendix A).
PRJ_NAME	C	48	Project, site, or facility name.

APPENDIX A: MATRIX CODES

10	Water-Total
11	Water-Dissolved
40	Sediment/Soil
45	Semi-Solid/Sludge
46	Sediment for EP Toxicity
70	Tissue
80	Oil/Solvent
00	Other

APPENDIX B: SAMPLE SOURCE CODES AND DESCRIPTIONS

00	Unspecified source
01	Unknown liquid media (drum/tank)
02	Unknown liquid media (spill area)
03	Unknown liquid media (waste pond)
10	Water (general)
12	Ambient stream/river
13	Lake/reservoir
14	Estuary/ocean
15	Spring/seepage
16	Rain
17	Surface runoff/pond (general)
18	Irrigation canal/return flow
20	Well (general)
21	Well (industrial/agricultural)
22	Well (drinking water supply)
23	Well (test/observation/monitoring)
24	Drinking water intake
25	Drinking water (at tap)
30	Effluent wastewater (general)
31	Municipal effluent
32	Municipal inplant waters
33	Sewage runoff/leachate
34	Industrial effluent
35	Industrial inplant waters
36	Industrial surface runoff/pond
37	Industrial waste pond
38	Landfill runoff/pond/leachate
40	Sediment (general)
42	Bottom sediment of deposit
44	Sludge (general)
45	Sludge (waste pond)
46	Sludge (drum/tank)
48	Soil (general)
49	Soil (spill/contaminated area)
50	Bore hole material

Sample Source Codes and Descriptions
(continued)

60	Air (general)
61	Ambient air
62	Source of effluent air
63	Industrial or workroom air

64	Hi-vol filter
70	Tissue (general)
71	Fish tissue
72	Shellfish tissue
73	Bird tissue
74	Mammal tissue
75	Macroinvertebrate
76	Algae
77	Periphyton
78	Plant/vegetation
80	Oil/solvent (general)
81	Oil (transformer/capacitor)
82	Oil/solvent (drum/tank)
83	Oil/solvent (spill area)
84	Oil/solvent (waste pond)
90	Commercial product formulation
95	Well drill water
96	Well drill mud
97	Well sealing material
98	Gravel pack material

APPENDIX C: COLLECTION METHOD CODES

00	Unknown
10	Hand grab
11	Plastic bucket
12	Stainless steel bucket
13	Brass kemmerer
14	PVC kemmerer
15	D.O. dunker
16	DH 48/DH 49 Integrating sampler
17	Van Dorn bottle
18	Glass dip tube
19	Other
20	Automatic sampler (general)
21	ISCO auto sampler
22	Manning auto sampler
23	Hydrostar or similar pump
24	Submersible pump (electric)
25	Well point sampler (pump)
26	Stainless steel bailer (hand)
27	PVC bailer
28	Teflon bailer
29	Peristaltic pump
30	Dredge (unspecified)
31	Dredge (Peterson)
32	Dredge (Van Dorn)
33	Dredge (Van Veen)
34	Core
35	Freeze core
36	Bladder Pump
40	Macroinvertebrate (unspecified)
41	Picked by hand
42	Kick net
43	Surber
44	Modified Hess type sampler
45	Rock basket
46	Hester Dendy sampler
50	Fish (unspecified)
51	Fish (shocking)
52	Fish (netting)
53	Fish (hook & line)

APPENDIX C CONTINUED:

54	Fish (poison)
60	Periphyton (unspecified)
61	Rock scraping
62	Glass slides

APPENDIX E: LABORATORY QUALIFIERS

LIST OF QUALIFIERS FOR NUMERIC RESULTS

REMARK CODE	DEFINITION
B	Analyte is found in the blank as well as the sample, indicated possible/probable blank contamination.
J	Estimated value; not accurate.
M	Presence of material verified but not quantified
U or K quantitation	Compound was analyzed for but not detected. The associated numerical value is the sample detection limit.
UJ	Compound was analyzed for but not detected. The number is the estimated minimum detection limit.
C	The value is one of, or the sum of both, Benzo (b) Fluoranthene and Benzo (k) Fluoranthene.
X	Many background organisms.
H	Over holding time. Analysis run.
G	Improper container.
Z	Sample low due to interfering substance.
D	Sample high due to interfering substance.
IS	Interfering Substance.
P	Greater than (>).
A	Less than (<).
LMX	Lab Matrix Number.
LBK	Lab Blank Number.

APPENDIX E CONTINUED:

Data Qualifier Definitions

For the purpose of this document the following code letters and associated definitions are provided:

dr	dry weight
wt	wet weight
R	The data are unusable (compound may or may not be present). Resampling and reanalysis is necessary for verification.
N	Presumptive evidence of presence of material.
NJ	Presumptive evidence of the presence of the material at an estimated quantity.
UJ	The material was analyzed for, but was not detected. The sample quantitation limit is an estimated quantity.

The reviewer may determine that qualifiers other than those used in this document are necessary to describe or qualify the data. In these instances, it is the responsibility of each reporting entity to thoroughly document/explain the qualifiers used and notify Ecology prior to submition of data packages.

APPENDIX F: COUNTY FIPS CODES

WASHINGTON

001	ADAMS
003	ASOTIN
005	BENTON
007	CHELAN
009	CLALLAM
011	CLARK
013	COLUMBIA
015	COWLITZ
017	DOUGLAS
019	FERRY
021	FRANKLIN
023	GARFIELD
025	GRANT
027	GRAYS HARBOR
029	ISLAND
031	JEFFERSON
033	KING
035	KITSAP
037	KITTITAS
039	KLICKITAT
041	LEWIS
043	LINCOLN
045	MASON
047	OKANOGAN
049	PACIFIC
051	PEND OREILLE
053	PIERCE
055	SAN JUAN
057	SKAGIT
059	SKAMANIA
061	SNOHOMISH
063	SPOKANE
065	STEVENS
067	THURSTON
069	WAHKIAKUM
071	WALLA WALLA
073	WHATCOM
075	WHITMAN
077	YAKIMA

EXHIBIT F
RESTRICTIVE COVENANT

The property that is the subject of this Restrictive Covenant has been the subject of remedial action under Chapter 70.105D RCW. The work done to clean up the property (hereafter the "Cleanup Action") is described in the Consent Decree entered in State of Washington Department of Ecology v. Weyerhaeuser Company, Snohomish County Superior Court No. _____, and in attachments to the Decree and in documents referenced in the Decree. This Restrictive Covenant is required by Ecology under Ecology's rule WAC 173-340-440 (1991 ed.) because the Cleanup Action on the Site resulted in residual concentrations of petroleum contaminates which exceed Ecology's Method A cleanup levels for soils established under WAC 173-340-745(2) and ground water concentrations of arsenic which exceed Ecology's Method A cleanup levels for ground water established under WAC 173-340-720(2).

The undersigned, Weyerhaeuser Company, is the fee owner of real property in the County of Snohomish, State of Washington (legal description attached), hereafter referred to as the " Weyerhaeuser Everett West Site" (West Site). Weyerhaeuser Company makes the following declaration as to limitations, restrictions, and uses to which the Weyerhaeuser West Site may be put, and specifies that such declarations shall constitute covenants to run with the land, as provided by law, and shall be binding on all parties and all persons claiming under them, including all current and future owners of any portion of or interest in the West Site.

Section 1. No groundwater may be taken for domestic purposes from any well at the West Site. No residential development may take place on the site.

Section 2. Any activity on the West Site that may interfere with the Cleanup Action is prohibited. Any activity on the West Site that may result in the release of a hazardous substance that was contained as part of the Cleanup or Interim Cleanup Action(s) is prohibited; provided, however, if future activity on the West Side disturbs or otherwise releases hazardous substances remaining on-site, such substances shall be either (a) removed from the site and disposed of in accordance with the terms and conditions of the Consent Decree or (b) re-contained on the site in accordance with the terms and conditions of the Consent Decree.

Section 3. The owner of the West Site must give written notice to the Department of Ecology, or to a successor agency, of the owner's intent to convey any interest in the West Site. No conveyance of title, easement, lease or other interest in the West Site shall be consummated by the owner without adequate and complete provision for the continued operation, maintenance and monitoring of the Cleanup Action.

Section 4. The owner must notify and obtain approval from the Department of Ecology, or from a successor agency, prior to any use of the West Site that in inconsistent with the terms of this Restrictive Covenant. The Department of Ecology or its successor agency may approve such a use only after public notice and comment.

Section 5. The owner shall allow authorized representatives of the Department of Ecology, or of a successor agency, the right to enter the West Site at reasonable times for the purpose of evaluation compliance with the Cleanup Action Plan and the Consent Decree, to take samples, to inspect Cleanup Actions conducted at the West Site, and to inspect records that are related to the Cleanup Action.

Section 6. The owner of the West Site and the owner's assigns and successors in interest reserve the right under WAC 173-340-740 and WAC 173-340-

440 (1991 ed.) to record an instrument which provides that this Restrictive Covenant shall no longer limit the use of the West Site or be of any further force or effect. However, such an instrument may be recorded only with the consent of the Department of Ecology, or successor agency. The Department of Ecology, or a successor agency may consent to the recording of such an instrument only after public notice and comment.

Robert C. Lane
Name
Title Vice President
of Weyerhaeuser Company

October 21, 1994
Date