



101 East Marine View Drive  
Everett, Washington 98201  
Tel (206) 339 2800  
Fax (206) 339 2786

March 25, 1997

Nadine Romero  
Senior Program Hydrogeologist  
Industrial Section  
Department of Ecology  
300 Desmond Drive  
Lacey, WA 98504

RECEIVED  
MAR 27 1997  
Department of Ecology  
Industrial Section

Dear Nadine:

Enclosed is the Consent Decree for the Weyerhaeuser Everett East Site. We have reviewed the entire document and have noted typographical errors, which we request be fixed before submitting the Decree to the Court. The errors on the affected pages or sections are flagged with yellow "Post-it" tags. Please note that when the errors are fixed, it will not effect pagination on the signature page.

To expedite the filing process, Weyerhaeuser has signed the Consent Decree. We would like to begin the field work on April 14.

Please continue with your filing process. Joe Jackowski will process the other legal documents that were/will be sent by Tom Morrill. After the Decree is filed with the Court, Weyerhaeuser will need at least two complete copies of the Decree, and its specific attachments, along with legal documents such as joint motions, summons, complaint, affidavits, public responsive summary, etc.

Thank you for your assistance during this long process. If there is anything I can do to assist you, please contact me at 206-339-2871.

Sincerely,

A handwritten signature in cursive script that reads "Stuart Triolo".

Stuart Triolo  
Project Manager

pc: Arlan Ruf  
Harold Ruppert  
Joe Jackowski  
Jennifer Strachan

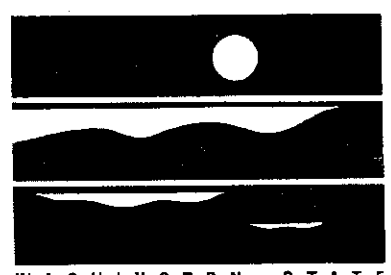
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notice

**CONSENT DECREE**

**Weyerhaeuser Mill E / Koppers Site  
Everett, Washington**

**Prepared by**

**Washington Department of Ecology  
October 8, 1998**



WASHINGTON STATE  
DEPARTMENT OF  
E C O L O G Y

629 Woodland Square Loop  
Bellevue

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**TABLE OF CONTENTS**

I. INTRODUCTION ..... 1

II. JURISDICTION ..... 2

III. PARTIES BOUND ..... 3

IV. DEFINITIONS ..... 3

V. STATEMENT OF FACTS ..... 4

VI. WORK TO BE PERFORMED ..... 7

VII. DESIGNATED PROJECT COORDINATORS ..... 11

VIII. PERFORMANCE ..... 12

IX. ACCESS ..... 12

X. SAMPLING, DATA REPORTING, AND AVAILABILITY ..... 13

XI. PROGRESS REPORTS ..... 13

XII. RETENTION OF RECORDS ..... 14

XIII. TRANSFER OF INTEREST IN PROPERTY ..... 14

XIV. RESOLUTION OF DISPUTES ..... 15

XV. AMENDMENT OF CONSENT DECREE ..... 16

XVI. EXTENSION OF SCHEDULE ..... 16

XVII. ENDANGERMENT ..... 18

XVIII. OTHER ACTIONS ..... 19

XIX. INDEMNIFICATION ..... 20

XX. COMPLIANCE WITH APPLICABLE LAWS ..... 20

XXI. REMEDIAL AND INVESTIGATIVE COSTS ..... 21

XXII. IMPLEMENTATION OF REMEDIAL ACTION ..... 22

XXIII. PERFORMANCE AND COMPLIANCE MONITORING ..... 22

1	XXIV.FIVE YEAR REVIEW .....	23
2	XXV.PUBLIC PARTICIPATION .....	23
3	XXVI.DURATION OF DECREE .....	24
4	XXVII.COVENANT NOT TO SUE .....	24
5	XXVIII.CLAIMS AGAINST THE STATE .....	26
6	XXIX.CONTRIBUTION PROTECTION .....	26
7	XXX.EFFECTIVE DATE .....	26
8	XXXI.PUBLIC NOTICE AND WITHDRAWAL OF CONSENT .....	26
9		
10	Exhibit A - Legal Description	
11	Exhibit B - Site Diagram	
12	Exhibit C - Cleanup Action Plan	
13	Exhibit D - Work Schedule	
14	Exhibit E - Performance and Compliance Monitoring Plan	
15	Exhibit F - Ground Water Sampling Data Submittal Requirements	
16	Exhibit G - Restrictive Covenant	
17	Exhibit H - Public Participation Plan	
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NOV 16 1998

FAM L. DANIELS  
COUNTY CLERK  
SNOHOMISH CO. WASH.

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5 **IN THE SUPERIOR COURT OF THE STATE OF WASHINGTON**  
6 **IN AND FOR SNOHOMISH COUNTY**

7 STATE OF WASHINGTON,  
8 DEPARTMENT OF ECOLOGY,

Plaintiff,

9 v.

10 WEYERHAEUSER COMPANY, a  
11 Washington Corporation,

Respondent.

**98 2 08718 6**

COMPLAINT

12  
13  
14 Plaintiff, State of Washington, Department of Ecology ("Ecology"), alleges as follows:

15 **I. DESCRIPTION OF ACTION**

16 1. This action is brought on behalf of the State of Washington, Department of  
17 Ecology, to enter a settlement agreement (Consent Decree) for a remedial action at a facility  
18 where there have been releases and/or threatened releases of hazardous substances.

19 2. The complaint and settlement are limited to the scope of the Consent Decree. The  
20 facility, or "Site", is referred to as Mill E/Koppers facility. The Mill E/Koppers facility, consists  
21 of the facility located at 515 East Marine View Dr., on the Weyerhaeuser Company's East site  
22 property in Everett, Washington 98201. The Site is more particularly described in Exhibit A of  
23 the Consent Decree that is being submitted to settle this action.  
24  
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1 **II. JURISDICTION**

2 3. This Court has jurisdiction under ch. 70.105D RCW, the Model Toxics Control  
3 Act ("MTCA"). This Court has jurisdiction over the subject matter and over the parties pursuant  
4 to the MTCA. Venue is properly laid in Snohomish County, the location of the property at issue.

5 4. Authority is conferred upon the Washington State Attorney General by RCW  
6 70.105.D.040(4)(a) to agree to a settlement with any potentially liable person if, after public  
7 notice and hearing, Ecology finds the proposed settlement would lead to a more expeditious  
8 cleanup of hazardous substances in compliance with cleanup standards under RCW  
9 70.105D.030(2)(e). Ecology has made the required finding. Under RCW 70.105D.040(4)(b),  
10 such a settlement must be entered as a Consent Decree issued by a court of competent  
11 jurisdiction.

12 5. Ecology has determined that a release or threatened release of a hazardous  
13 substance has occurred at the Site.

14 6. Ecology has given notice to Weyerhaeuser Company ("Weyerhaeuser"), as  
15 provided in RCW 70.105D.020(16), of Ecology's determination that they are potentially liable  
16 persons for the Site and that there has been a release and/or threatened release of hazardous  
17 substances at the Site.

18 **III. PARTIES**

19 7. Plaintiff Ecology is an agency of the State of Washington responsible for  
20 overseeing remedial action at sites contaminated with hazardous substances under ch. 70.105D  
21 RCW.

22 8. Defendant refers to the Weyerhaeuser Company.

23 **IV. FACTUAL ALLEGATIONS**

24 9. The Mill E/Koppers facility is property owned by Weyerhaeuser and is located at  
25 on the Weyerhaeuser Company's East site property at 515 East Marine View Dr. in Everett,  
26 Washington, 98201.

1 The Mill E/Koppers Site is located northeast of downtown Everett and consists of  
2 approximately 8.9 acres zoned M-2 heavy manufacturing, by the City of Everett. The Site has  
3 been always used for industrial purposes.

4 The Site is relatively flat and triangular in shape. It is bordered on the east by the  
5 Snohomish River and on the north, south, and west by the property owned by the Port of Everett.

6 Weyerhaeuser began operations in the Everett area in 1902. In 1915, Weyerhaeuser built  
7 a large sawmill complex (Mill B), which was located west and north of the Site. The Site was  
8 used as a lumber storage area from 1915 until 1948, when American Lumber Treating Co.  
9 (ALTC) leased the Site from Weyerhaeuser. ALTC constructed a wood-treatment facility and  
10 began wood treatment operations at the Site. Koppers Company acquired ALTC in 1954. Wood  
11 treatment at the Site continued until 1963, when the lease expired and Weyerhaeuser resumed use  
12 of the Site. Beginning in 1963, Weyerhaeuser gradually converted the former wood-treatment  
13 facility into an equipment maintenance facility. The maintenance facility operated from 1963 to  
14 1984. Activities at the maintenance facility consisted of petroleum fueling and maintenance of  
15 vehicles and engines. The petroleum tanks and some of the petroleum contaminated soil were  
16 removed in 1988. Weyerhaeuser built a sawmill, named Mill E, at the northeast end of the Site  
17 in 1971. Mill E was designed to handle small-diameter logs and produce dimensional lumber.  
18 Mill E was shut down in 1984 and the building was demolished except for the foundation in  
19 1988.

19 10. There has been a release of hazardous substances at the Site.

20 11. Ecology and the defendants have entered into a Consent Decree regarding the  
21 remedial actions to be taken at the Site.

## 22 V. CAUSES OF ACTION

23 12. Plaintiff realleges paragraphs 1 through 11, above.

24 13. Ecology alleges that the defendants are responsible for remedial action at the  
25 facility pursuant to ch. 70.105D RCW and ch. 173-340 WAC.  
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14. Ecology and the defendants have entered into a Consent Decree requiring remedial actions at the facility. The Consent Decree has been subject to public notice and comment, and a public hearing, under RCW 70.105D.040(4)(a).

**VI. PRAYER FOR RELIEF**

WHEREAS Ecology, and Weyerhaeuser Company have voluntarily entered into a proposed Consent Decree, Ecology requests that the Court, pursuant to RCW 70.105D.040, approve and order the entry of the proposed Consent Decree. Ecology further requests that the Court retain jurisdiction to enforce the terms of the Consent Decree.

Respectfully submitted this 12<sup>th</sup> day of November, 1998.

CHRISTINE O. GREGOIRE  
Attorney General



THOMAS C. MORRILL, WSBA #18388  
Assistant Attorney General  
Attorneys for Plaintiff

State of Washington  
Department of Ecology  
(360) 459-6159

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**FILED**

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PAUL L. DANIELS  
COUNTY CLERK  
SNOHOMISH CO. WASH.

**IN THE SUPERIOR COURT OF THE STATE OF WASHINGTON  
IN AND FOR SNOHOMISH COUNTY**

**98 2 08718 6**

STATE OF WASHINGTON,  
DEPARTMENT OF ECOLOGY,

Plaintiff,

v.

WEYERHAEUSER COMPANY, a  
Washington Corporation,

Respondent.

NO.

**ORDER ENTERING  
CONSENT DECREE**

Having reviewed the Consent Decree signed by the parties to this matter, the Joint Motion for Entry of the Consent Decree, the Declarations of Paul Skyllingstad and Thomas C. Morrill, and the file herein, it is hereby

ORDERED AND ADJUDGED that the Consent Decree in this matter is Entered and that the Court shall retain jurisdiction over the Consent Decree to enforce its terms.

DATED this \_\_\_\_\_ day of \_\_\_\_\_, 19\_\_\_\_  
*NOV 30 1998*

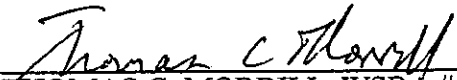
RICHARD J. THORPE

\_\_\_\_\_  
JUDGE/COMMISSIONER  
Snohomish County

1 **Presented by:**

2 **CHRISTINE O. GREGOIRE**  
3 Attorney General

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5 THOMAS C. MORRILL, WSBA #18388  
6 Assistant Attorney General

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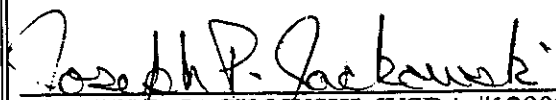
7 Attorneys for Plaintiff  
8 State of Washington  
9 Department of Ecology

8

9 DATED: November 12, 1998

9

10 **WEYERHAEUSER COMPANY**

11 

12 JOSEPH P. JACKOWSKI, WSBA #12903  
13 Attorney for Defendant  
14 Weyerhaeuser Company

14

15 DATED: 11/12/98

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16 TOM\WEYERHSR\PL.YWOOD ORDER ENTERING CD.DOC

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**FILED**

NOV 16 1998

PAM L. DANIELS  
COUNTY CLERK  
SNOHOMISH COUNTY WASH

**IN THE SUPERIOR COURT OF THE STATE OF WASHINGTON  
IN AND FOR SNOHOMISH COUNTY**

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STATE OF WASHINGTON,  
DEPARTMENT OF ECOLOGY,

Plaintiff,

v.

WEYERHAEUSER COMPANY, a  
Washington Corporation,

Respondent.

NO.

SUMMONS

To: Weyerhaeuser Company;

And To: The Clerk of the above-entitled Court:

A lawsuit has been started against you in the above-entitled court by the State of Washington, Department of Ecology, Plaintiff. Plaintiff's claim is stated in the written complaint, a copy of which is served upon you with this Summons.

The parties have agreed to resolve this matter by entry of a Consent Decree.

Accordingly, this Summons shall not require the filing of an answer.

Respectfully submitted this 12<sup>th</sup> day of November, 1998.

CHRISTINE O. GREGOIRE  
Attorney General



THOMAS C. MORRILL, WSBA #18388  
Assistant Attorney General  
Attorneys for Plaintiff  
Department of Ecology  
(360) 459-6159

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**IN THE SUPERIOR COURT OF THE STATE OF WASHINGTON  
IN AND FOR SNOHOMISH COUNTY**

STATE OF WASHINGTON,  
DEPARTMENT OF ECOLOGY,  
  
Plaintiff,  
  
v.  
  
WEYERHAEUSER COMPANY, a  
Washington Corporation,  
  
Respondent.

NO.  
  
CONSENT DECREE

**I. INTRODUCTION**

A. In entering into this Consent Decree (Decree), the mutual objective of the Washington State Department of Ecology (Ecology), and Weyerhaeuser Company is to provide for remedial action at a facility where there has been a release or threatened release of hazardous substances. This Decree requires Weyerhaeuser Company to undertake the cleanup of the former Everett Weyerhaeuser Mill E/Koppers Facility. Ecology has determined that these actions are necessary to protect public health and the environment.

B. The Complaint in this action is being filed simultaneously with this Decree. An answer has not been filed, and there has not been a trial on any issue of fact or law in this case. However, the parties wish to resolve the issues raised by Ecology's Complaint. In addition, the parties agree that settlement of these matters without litigation is reasonable and in the public interest and that entry of this Decree is the most appropriate means of resolving these matters.

C. In signing this Decree, Weyerhaeuser Company agrees to its entry and agrees to be bound by its terms.

1 D. By entering into this Decree, the parties do not intend to discharge nonsettling  
2 parties from any liability they may have with respect to matters alleged in the Complaint. The  
3 parties retain the right to seek reimbursement, in whole or in part, from any liable persons for  
4 sums expended under this Decree.

5 E. This Decree shall not be construed against Weyerhaeuser as proof of liability or  
6 responsibility for any releases of hazardous substances or cost for remedial action nor an  
7 admission of any facts; provided, however, that the Weyerhaeuser Company shall not challenge  
8 the jurisdiction of Ecology in any proceeding to enforce this Decree.

9 F. The Court is fully advised of the reasons for entry of this Decree, and good cause  
10 having been shown: IT IS HEREBY ORDERED, ADJUDGED, AND DECREED AS  
11 FOLLOWS:

## 12 II. JURISDICTION

13 A. This Court has jurisdiction over the subject matter and over the parties pursuant to  
14 Chapter 70.105D RCW, the Model Toxics Control Act (MTCA).

15 B. Authority is conferred upon the Washington State Attorney General by RCW  
16 70.105D.040(4)(a) to agree to a settlement with any potentially liable person if, after public  
17 notice and hearing, Ecology finds the proposed settlement would lead to a more expeditious  
18 cleanup of hazardous substances. RCW 70.105D.040(4)(b) requires that such a settlement be  
19 entered as a consent decree issued by a court of competent jurisdiction.

20 C. Ecology has determined that a release or threatened release of hazardous  
21 substances has occurred at the Site which is the subject of this Decree.

22 D. Ecology has given notice to Weyerhaeuser Company, as set forth in RCW  
23 70.105D.020(16), of Ecology's determination that the Weyerhaeuser Company is a potentially  
24 liable person for the Site and that there has been a release or threatened release of hazardous  
25 substances at the Site.

26

1 E. The actions to be taken pursuant to this Decree are necessary to protect public  
2 health, welfare, and the environment and shall be conducted in compliance with MTCA and  
3 Chapter 173-340 WAC.

4 F. Weyerhaeuser Company has agreed to undertake the actions specified in this  
5 Decree and consents to the entry of this Decree under the MTCA.

6 G. Ecology has determined that this Decree is not based upon circumstances unique  
7 to Weyerhaeuser within the meaning of RCW 70.105D.040 (4)(e)(ii).

### 8 III. PARTIES BOUND

9 This Decree shall apply to and be binding upon the signatories to this Decree. The  
10 undersigned representative of each party hereby certifies that he or she is fully authorized to enter  
11 into this Decree and to execute and legally bind such party to comply with the Decree.

12 Weyerhaeuser Company agrees to undertake all actions required by the terms and conditions of  
13 this Decree and not to contest state jurisdiction regarding this Decree. No change in ownership  
14 or corporate status shall alter the responsibility of the Weyerhaeuser Company under this Decree.  
15 Weyerhaeuser Company shall provide a copy of this Decree to all agents, contractors and  
16 subcontractors retained to perform work required by this Decree and shall ensure that all work  
17 undertaken by such contractors and subcontractors will be in compliance with this Decree.

### 18 IV. DEFINITIONS

19 Except for as specified herein, all definitions in WAC 173-340-200 apply to the terms in  
20 this Decree.

21 A. Site: The Site, referred to as Mill E/Koppers Facility, is located next to the  
22 Snohomish River, approximately 2 miles up stream from the river mouth at Port Gardner Bay.  
23 The Site is located at 515 East Marine View Drive, Everett, Washington. The Site mailing  
24 address is 101 East Marine View Drive, Everett, Washington, 98201. The Site is legally  
25 described in Exhibit A, and a detailed Site diagram is shown in Exhibit B.

26 B. Parties: Refers to the Washington State Department of Ecology and  
Weyerhaeuser Company, a Washington Corporation.

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C. Weyerhaeuser: Refers to Weyerhaeuser Company.

D. Consent Decree or Decree: Refers to this Consent Decree and each of the exhibits to the Decree. All exhibits are integral and enforceable parts of this Consent Decree. The terms "Consent Decree" or "Decree" shall include all Exhibits to the Consent Decree.

E. Day: Refers to calendar days unless specified otherwise.

**V. STATEMENT OF FACTS**

Ecology makes the following finding of facts without any express or implied admissions by Weyerhaeuser Company.

A. Site Description: Weyerhaeuser owns the Everett Mill E/Koppers Facility (Site). The Mill E/Koppers Site is located at 515 East Marine View Drive, Everett, Washington. The Mill E/Koppers Site is located northeast of downtown Everett and consists of approximately 8.9 acres zoned M-2 heavy manufacturing, by the City of Everett. The Site has been always used for industrial purposes.

The Site is relatively flat and triangular in shape. It is bordered on the east by the Snohomish River and on the north, south, and west by the property owned by the Port of Everett. The Site is legally described in Exhibit A, and is shown on a diagram in Exhibit B.

B. Site Geology. The Site is relatively level, and is located approximately two miles up stream from the Snohomish River mouth at Port Gardner Bay in Possession Sound. Most of the Site is underlain by dredged sand fill. The River is channeled and consists of a main stream and several shallow sloughs separated by marshy islands. The main channel is approximately 750 feet wide and runs next to the Site. The Site is located within the low-lying flood plain of the Snohomish River (a former estuarine tidal flat), which is bound on the west by a steeply sloping hill that extends 500 feet above mean sea level. In the early 1900's the Site was filled with dredged sand from the river bottom, which was placed over the natural flood plain/tidal flat sediments. The bank of the river adjacent to the Site has been stabilized with a bulkhead of timber piling. The Site stratigraphy from surface to depth is as follows:

1           1.     Grade Fill and Mixed Fill Unit. The unit is approximately 1 to 4 feet thick  
2 and consists of asphalt, sandy gravel, angular pebbles, cobbles of crushed rock, wood debris, and  
3 bark. The fill unit forms a dense but permeable unit at the surface. The unit is generally  
4 continuous across the Site.

5           2.     Upper Sand Unit. The upper sand unit consists of gray brown to black,  
6 fine to medium sand with trace amounts of coarse sand. The upper sand averages 5 to 6 feet  
7 thick and ranges from less than 1 foot to 10.5 feet thick. Historical records indicate that the unit  
8 was dredged from the Snohomish River and deposited on the estuarine tidal flats. Faint bedding  
9 along with a general upward coarsening of grain size with depth confirm that the unit is dredge  
10 fill.

11           3.     Upper Silt Unit. The upper silt unit consists of stiff, low plasticity to non-  
12 plastic gray-brown to dark brown silt with abundant organic matter in the upper layers of the  
13 unit. Lenses of fine sand, sandy silt, and silty sand 0.1 to 0.2 feet thick are found throughout the  
14 unit. The unit was encountered in all borings penetrating the base of the upper sand or other fill  
15 at the Site. The unit ranges in thickness from 1 to 17 feet.

16           4.     Lower Sand Unit. The lower sand unit is composed of medium to  
17 coarse sand with a trace gravel and wood debris. The base of the unit may have been intercepted  
18 in one boring where the unit is 63 feet thick. The unit is interpreted to be fluvial sediment  
19 deposited by the Snohomish River.

20           C.     Site Hydrogeology. Three hydrostratigraphic units were identified during the Site  
21 investigations: a shallow unconfined aquifer (Grade Fill and Upper Sand Units), a semi-confined  
22 zone (Upper Silt Unit), and a semi-confined aquifer (Lower Sand Unit). Ground water is  
23 approximately 4 feet below ground surface on the Site.

24           The three hydrostratigraphic units correspond to the geologic units described above:

25           1.     Grade Fill and Mixed Fill. The grade fill and mixed fill unit is generally  
26 unsaturated throughout the Site.



1                   2.     Upper Sand Aquifer. The upper sand aquifer is the unconfined saturated  
2 portion of the upper sand unit. The average water table depth is 4 feet bgs. The water table  
3 fluctuates an average of 2.5 feet between seasonal maximum and minimum. The saturated  
4 thickness ranges from 2 to 7 feet. Groundwater flow in the upper sand aquifer is generally  
5 horizontal, perpendicular to and toward the Snohomish River. Groundwater elevations in the  
6 upper sand aquifer are generally 3 feet higher than the average river elevation. Water elevations  
7 are not significantly influenced by the tidal action of the Snohomish River. A minor component  
8 of groundwater flows downward through the upper silt primarily during low tide.

9                   3.     Upper Silt Aquitard. The upper silt unit is a low-permeability layer  
10 between the two sand aquifers. No monitoring wells have been installed in the silt unit.

11                   4.     Lower Sand Aquifer. The lower sand unit is partially to completely  
12 confined, tidally influenced, and bounded above and below by low-permeability silt layers.  
13 Water elevations are influenced by tidal fluctuations of the Snohomish River. The horizontal  
14 groundwater gradient in the aquifer varies depending on the stage of the tidal cycle. The average  
15 groundwater flow direction appears to be perpendicular to and toward the Snohomish River.

16           D.     Site History. Weyerhaeuser began operations in the Everett area in 1902. In  
17 1915, Weyerhaeuser built a large sawmill complex (Mill B), which was located west and north of  
18 the Site. The Site was used as a lumber storage area from 1915 until 1948, when American  
19 Lumber Treating Co. (ALTC) leased the Site from Weyerhaeuser. ALTC constructed a wood-  
20 treatment facility and began wood treatment operations at the Site. Koppers Company acquired  
21 ALTC in 1954. Wood treatment at the Site continued until 1963, when the lease expired and  
22 Weyerhaeuser resumed use of the Site. Beginning in 1963, Weyerhaeuser gradually converted  
23 the former wood-treatment facility into an equipment maintenance facility. The maintenance  
24 facility operated from 1963 to 1984. Activities at the maintenance facility consisted of  
25 petroleum fueling and maintenance of vehicles and engines. The petroleum tanks and some of  
26 the petroleum contaminated soil were removed in 1988. Weyerhaeuser built a sawmill, named  
Mill E, at the northeast end of the Site in 1971. Mill E was designed to handle small-diameter

1 logs and produce dimensional lumber. Mill E was shut down in 1984 and the building was  
2 demolished except for the foundation in 1988.

3 E. Prior Site Work. In compliance with MTCA and Chapter 173-340 WAC,  
4 Weyerhaeuser provided notice to Ecology of a release of hazardous substances at the Site,  
5 prepared and submitted to Ecology the following documents: Results of Phase III Sediment  
6 Sampling Former Mill E/Koppers (4/96); Ground water Monitoring Results (2/94, 8/94, 2/95,  
7 8/95, 2/96, 8/96); Remedial Investigation Report for Former Mill E/Koppers Facility (9/94);  
8 Treatability Summary Report (3/94); Feasibility Study Former Mill E/Koppers Facility (2/97);  
9 Evaluation of Mass Removal Enhancements to Remedial Alternative 4 Former Mill E/Koppers  
10 Facility (9/97); Description of Final Cleanup Action and RI/FS Summary (1/98); Design Basis  
11 Memorandum Former Mill E/Koppers (1/98); SEPA Environmental Checklist (1/98); Draft  
12 Engineering Design Report Former Mill E/Koppers (3/98); Design Drawings (3/98); Draft  
13 Performance and Compliance Monitoring Plan (3/98), and numerous letter/technical  
14 memorandums clarifying information requested by Ecology (referenced in the Description of  
15 Final Cleanup Action and RI/FS Summary). By review of these reports, Ecology believes  
16 Weyerhaeuser has met the functional requirements of the MTCA for a Remedial Investigation  
17 (WAC 173-340-350) and a Feasibility Study (WAC 173-340-350).

## 18 VI. WORK TO BE PERFORMED

19 This Decree contains a program designed to protect public health, welfare and the  
20 environment from the known release, or threatened release, of hazardous substances or  
21 contaminants at, on, or from the Weyerhaeuser Mill E/Koppers Site. This program implements  
22 Ecology's Cleanup Action Plan (CAP) and with the remainder of this Consent Decree and  
23 Exhibits, implements the Model Toxics Control Act (MTCA).

24 Specifically, this Decree requires Weyerhaeuser to undertake the following remedial  
25 action(s) which are described in more detail in the Engineering Design Report of March 11, 1998:

- 26 1. Excavate up to 1,200 cubic yards of "hot spot" contaminated soil from the "blow pit" area.

- 1 2. Fill excavation with clean fill.
- 2 3. Prepare the Site for the construction of a low-permeability barrier wall by
- 3 completing Site grading, removal or rerouting of underground utilities, and
- 4 demolition of current Site structures.
- 5 4. Construct a low-permeability, vertical barrier wall around an area outlined in
- 6 Exhibit B where nonaqueous-phase liquids or heavy residual soil contamination
- 7 occurs.
- 8 5. Construct a low-permeability asphalt cap over the barrier wall containment area.
- 9 6. Construct a soil cap over portions of the Site not covered by the asphalt cover
- 10 system.
- 11 7. Perform ground water performance monitoring.
- 12 8. Record a restrictive covenant for the contaminated areas on Site that remain above
- 13 the cleanup levels, including a restriction from removing water from the
- 14 uppermost aquifer beneath the Site.

15 Ecology has determined that these and the other actions required by this Consent Decree are  
16 necessary to protect public health and the environment and comply with MICA and Chapter  
17 173-340 WAC.

18 A. Cleanup Action Plan. Ecology's cleanup action plan constitutes an integral part  
19 of this Decree and is attached as Exhibit C.

20 B. Cleanup Standards. The following compounds were analyzed in soil, ground  
21 water and surface water at the Weyerhaeuser Mill E/Koppers Site: soil – metals (arsenic (As),  
22 chromium, copper, lead, mercury), polychlorinated biphenyl (PCB), total petroleum  
23 hydrocarbons (TPH), volatile organic compounds (VOC), semivolatile organic compounds  
24 (SVOC), and dioxins/furans; water – total and dissolved metals (arsenic, chromium, copper, lead,  
25 mercury), TPH, VOCs, and SVOCs; and surface water - metals (arsenic, chromium, copper, lead,  
26 mercury), TPH, and SVOC's. Of these compounds the following were determined to be the most  
representative indicator hazardous substances (IHS) in soil or ground water: TPH, arsenic,  
chromium, copper, total CPAH's (soil only) and pentachlorophenol (PCP). The cleanup  
standards established for the Weyerhaeuser Mill E/Koppers Site IHS's and the basis for those

standards are set forth in the table below. The point of compliance for the Mill E/Koppers Site is the Site boundary.

**MTCA Cleanup Standard for Soil**

Parameter	Cleanup Level (mg/Kg)	Protection Basis
PCP	280 <sup>1</sup>	MTCA C Industrial
Total CPAHs	20.0	MTCA A Industrial
TPH	2,500 <sup>2</sup>	MTCA B
Chromium	500	MTCA A Industrial
ARSENIC <sup>3</sup>	200	MTCA A Industrial

1 Leach studies were conducted for the Snohomish County Consent Decree entered in the matter of  
 2 Department of Ecology v. Weyerhaeuser Company (Cause No. 97 2 02773 8) concerning the  
 3 Weyerhaeuser East Site. A soil cleanup level of 280 mg/kg was determined from soil leach studies  
 4 to ensure the protection of groundwater.  
 5 A soil cleanup level of 2,500 mg/kg will be implemented based on soil leach studies to ensure the  
 6 protection of groundwater.  
 7 The arsenic cleanup standard is only applicable to soils found within the vertical containment  
 8 area.

**MTCA Cleanup Standard for Ground Water**

Parameter	Cleanup Standard	Protection Basis
TPH	10.0 mg/L	MTCA Method C
PCP	7.29 ug/L	MTCA Method C
As <sup>1</sup>	5.0 ug/L	MICA Method A

1 Cleanup standard is only applicable to groundwater found within the vertical containment wall  
 2 area.

- 1 C. Scope of Work. Weyerhaeuser through its contractors and subcontractors as  
2 necessary, shall accomplish the following work:
- 3 1. Obtain any and all federal permits required by applicable law before work  
4 on-site can commence.
  - 5 2. Prepare Site Health and Safety Plan in accordance with OSHA and  
6 WISHA, and their implementing regulations.
  - 7 3. Prepare a contaminated material-handling plan, which will be used in the  
8 excavation and removal of contaminated soils and other materials present on the Site.
  - 9 4. Remove to design grade all concrete structures such as retaining walls,  
10 wing walls, and foundations from the former mill buildings, and standpipes. Reroute or abandon  
11 existing utilities around the proposed barrier wall alignment.
  - 12 5. Excavate 1,200 cubic yards of contaminated soils from the area known as  
13 the "blow pit" located south of former Mill E and east of the former wood treating building. The  
14 excavation depth shall be the static ground water table at the time of excavation. Material shall  
15 be transported by rail, tractor-trailer, or dump truck to a RCRA dangerous waste landfill  
16 approved by Ecology.
  - 17 6. Fill excavations with clean backfill.
  - 18 7. Install an approximate 1,600 foot low-permeability, vertical, barrier wall  
19 around the portion of the Site where wood treating contaminants (creosote, PCP, and Wolman  
20 salts) consisting of nonaqueous-phase liquids (NAPL) and certain soils containing these  
21 contaminants are present.
  - 22 8. Grade and fill the Site to design grade.
  - 23 9. Install a low permeability asphalt cap over the vertical barrier wall  
24 containment area.
  - 25 10. Install a one-foot thick soil cap over the area on the Site that is not covered  
26 by the asphalt cover system.
  11. Hydroseed the soil cap and install an asphalt cap drainage system.

1           12.     A ground water performance monitoring plan has been submitted by  
2 Weyerhaeuser. Install six ground water performance monitoring wells. One of these wells shall  
3 be designated as a compliance monitoring well.

4           13.     Institutionally control by recording a restrictive covenant (WAC 173-340-  
5 440), within 90 days after completion of the final capping, areas that contain soil or ground water  
6 contaminant levels above method A or Method B levels for TPH, total CPAH's, PCP, As, and  
7 chromium.

8           D.     Schedule. The schedule for the implementation of the Scope of Work is shown in  
9 Exhibit D.

10           E.     Except as set forth in Section VII. below, Weyerhaeuser Company agrees  
11 not to perform any remedial actions outside the scope of this Decree unless the parties agree to  
12 amend the scope of work to cover these actions. All work conducted under this Decree shall be  
13 done in accordance with ch. 173-340 WAC unless otherwise provided herein.

#### 14                               **VII.    DESIGNATED PROJECT COORDINATORS**

15           The project coordinator for Ecology is:

16                               Paul Skillingstad  
17                               Industrial Section  
18                               Department Of Ecology  
19                               PO Box 47706  
20                               Olympia, WA 98504-7706  
21                               Phone (360) 407-6949

22           The project coordinator for Weyerhaeuser Company is:

23                               Mr. Stuart Triolo  
24                               Weyerhaeuser Company  
25                               101 East Marine View Drive  
26                               Everett, WA 98201  
                                  Phone (425) 339-2871

Each project coordinator shall be responsible for overseeing the implementation of this  
Decree. The Ecology project coordinator will be Ecology's designated representative at the Site.  
To the maximum extent possible, communications between Ecology and the Weyerhaeuser  
Company and all documents, including reports, approvals, and other correspondence concerning

1 the activities performed pursuant to the terms and conditions of this Decree, shall be directed  
2 through the project coordinators. The project coordinators may designate, in writing, working  
3 level staff contacts for all or portions of the implementation of the remedial work required by this  
4 Decree. The project coordinators may agree to minor modifications to the work to be performed  
5 without formal amendments to this Decree. Minor modifications will be documented in writing  
6 by Ecology.

7 Any party may change its respective project coordinator. Written notification shall be  
8 given to the other parties at least ten (10) calendar days prior to the change.

### 9 VIII. PERFORMANCE

10 All work performed pursuant to this Decree shall be under the direction and supervision,  
11 as necessary, of a professional engineer or hydrogeologist, or equivalent, with experience and  
12 expertise in hazardous waste Site investigation and cleanup. Any construction work must be  
13 under the supervision of a professional engineer. Weyerhaeuser Company shall notify Ecology  
14 in writing as to the identity of such engineer(s) or hydrogeologist(s), or others and of any  
15 contractors and subcontractors to be used in carrying out the terms of this Decree, in advance of  
16 their involvement at the Site.

### 17 IX. ACCESS

18 Ecology or any Ecology authorized representatives shall have the authority to enter and  
19 freely move about all property at the Site at all reasonable times for the purposes of, inter alia:  
20 inspecting records, operation logs, and contracts related to the work being performed pursuant to  
21 this Decree; reviewing Weyerhaeuser Company's progress in carrying out the terms of this  
22 Decree; conducting such tests or collecting such samples as Ecology may deem necessary; using  
23 a camera, sound recording, or other documentary type equipment to record work done pursuant  
24 to this Decree; and verifying the data submitted to Ecology by the Weyerhaeuser Company. All  
25 parties with access to the Site pursuant to this paragraph shall comply with approved health and  
26 safety plans.

1                   **X.       SAMPLING, DATA REPORTING, AND AVAILABILITY**

2                   With respect to the implementation of this Decree, Weyerhaeuser Company shall make  
3 the results of all sampling, laboratory reports, and/or test results generated by it, or on its behalf  
4 available to Ecology and shall submit these results in accordance with Section XI of this Decree.

5                   In accordance with WAC 173-340-840(5), ground water sampling data shall be submitted  
6 according to Exhibit F: GROUND WATER SAMPLING DATA SUBMITTAL  
7 REQUIREMENTS. These submittals shall be provided to Ecology in accordance with Section  
8 XI of this Decree.

9                   If requested by Ecology, Weyerhaeuser Company shall allow split or duplicate samples to  
10 be taken by Ecology and/or its authorized representatives of any samples collected by  
11 Weyerhaeuser Company pursuant to the implementation of this Decree. Weyerhaeuser Company  
12 shall notify Ecology seven (7) days in advance of any sample collection or work activity at the  
13 Site. Ecology shall, upon request, allow split or duplicate samples to be taken by Weyerhaeuser  
14 Company or its authorized representatives of any samples collected by Ecology pursuant to the  
15 implementation of this Decree provided it does not interfere with the Department's sampling.  
16 Without limitation on Ecology's rights under Section IX, Ecology shall endeavor to notify  
17 Weyerhaeuser Company prior to any sample collection activity.

18   **XI.       PROGRESS REPORTS**

19                   Weyerhaeuser Company shall submit to Ecology written monthly progress reports which  
20 describe the actions taken during the previous month to implement the requirements of this  
21 Decree. The progress reports shall include the following:

- 22                   A.       A list of on-site activities that have taken place during the month;
- 23                   B.       Detailed description of any deviations from required tasks not otherwise  
24 documented in project plans or amendment requests;
- 25                   C.       Description of all deviations from the schedule (Exhibit D) during the current  
26 month and any planned deviations in the upcoming month;



1 D. For any deviations in schedule, a plan for recovering lost time and maintaining  
2 compliance with the schedule;

3 E. All raw data (after appropriate QA/QC) (including laboratory analysis) received by  
4 the Weyerhaeuser Company during the past month and an identification of the source of the  
5 sample;

6 F. A list of deliverables for the upcoming month if different from the schedule.

7 All progress reports shall be submitted by the tenth day of the month in which they are  
8 due after the effective date of this Decree. Unless otherwise specified, progress reports and any  
9 other documents submitted pursuant to this Decree shall be sent by mail, to Ecology's project  
10 coordinator. Progress reports shall only be required during the soil remediation, wall installation,  
11 cap installation, and monitoring installation portion of this Decree, and shall cease upon  
12 submission of the final remediation report. Thereafter, reporting requirements shall be in  
13 accordance with Section XXIII. below.

## 14 XII. RETENTION OF RECORDS

15 Weyerhaeuser Company shall preserve, during the pendency of this Decree and for ten  
16 (10) years from the date this Decree is no longer in effect as provided in Section XXVI, all  
17 records, reports, documents, and underlying data in its possession relevant to the implementation  
18 of this Decree and shall insert in contracts with project contractors and subcontractors a similar  
19 record retention requirement. Upon request of Ecology, Weyerhaeuser Company shall make all  
20 non-archived records available to Ecology and allow access for review. All archived records  
21 shall be made available to Ecology within a reasonable period of time.

## 22 XIII. TRANSFER OF INTEREST IN PROPERTY

23 No voluntary or involuntary conveyance or relinquishment of title, easement, leasehold,  
24 or other interest in any portion of the Site shall be consummated without provision for continued  
25 operation and maintenance of any containment system, treatment system, and monitoring system  
26 installed or implemented pursuant to this Decree.

1 Prior to transfer of any legal or equitable interest in all or any portion of the property, and  
2 during the effective period of this Decree, Weyerhaeuser Company shall serve a copy of this  
3 Decree upon any prospective purchaser, lessee, transferee, assignee, or other successor in interest  
4 of the property; and, at least thirty (30) days prior to any transfer, Weyerhaeuser Company shall  
5 notify Ecology of said contemplated transfer.

#### 6 **XIV. RESOLUTION OF DISPUTES**

7 A. In the event a dispute arises as to an approval, disapproval, proposed modification  
8 or other decision or action by Ecology's project coordinator, the parties shall utilize the dispute  
9 resolution procedure set forth below.

10 (1) Upon receipt of the Ecology project coordinator's decision, the  
11 Weyerhaeuser Company has fourteen (14) days within which to notify Ecology's project  
12 coordinator of its objection to the decision.

13 (2) The parties' project coordinators shall then confer in an effort to resolve  
14 the dispute. If the project coordinators cannot resolve the dispute within fourteen (14) days,  
15 Ecology's project coordinator shall issue a written decision.

16 (3) Weyerhaeuser Company may then request Ecology management review of  
17 the decision. This request shall be submitted in writing to the Toxics Cleanup Program Manager  
18 within seven (7) days of receipt of Ecology's project coordinator's decision.

19 (4) Ecology's Program Manager shall conduct a review of the dispute and  
20 shall issue a written decision regarding the dispute within thirty (30) days of the Weyerhaeuser  
21 Company's request for review. The Program Manager's decision shall be Ecology's final  
22 decision on the disputed matter.

23 B. If Ecology's final written decision is unacceptable to Weyerhaeuser Company,  
24 Weyerhaeuser Company has the right to submit the dispute to the Court for resolution. The  
25 parties agree that one judge should retain jurisdiction over this case and shall, as necessary,  
26 resolve any dispute arising under this Decree. In the event Weyerhaeuser Company presents an  
issue to the Court for review, which issue is subject to RCW 70.105D.060, the Court shall review

1 the action or decision of Ecology on the basis of whether such action or decision was arbitrary  
2 and capricious and render a decision based on such standard of review.

3 C. The parties agree to only utilize the dispute resolution process in good faith and  
4 agree to expedite, to the extent possible, the dispute resolution process whenever it is used.  
5 Where either party utilizes the dispute resolution process in bad faith or for purposes of delay,  
6 the other party may seek sanctions.

7 Implementation of these dispute resolution procedures shall not provide a basis for delay  
8 of any activities required in this Decree, unless Ecology agrees in writing to a schedule extension  
9 or the Court so orders.

#### 10 **XV. AMENDMENT OF CONSENT DECREE**

11 This Decree may only be amended by a written stipulation among the parties to this  
12 Decree that is entered by the Court or by order of the Court. Such amendment shall become  
13 effective upon entry by the Court. Agreement to amend shall not be unreasonably withheld by  
14 any party to the Decree.

15 Weyerhaeuser Company shall submit any request for an amendment to Ecology for  
16 approval. Ecology shall indicate its approval or disapproval in a timely manner after the request  
17 for amendment is received. If the amendment to the Decree is substantial, Ecology will provide  
18 public notice and opportunity for comment. Reasons for the disapproval shall be stated in  
19 writing. If Ecology does not agree to any proposed amendment, the disagreement may be  
20 addressed through the dispute resolution procedures described in Section XIV of this Decree.

#### 21 **XVI. EXTENSION OF SCHEDULE**

22 A. An extension of schedule shall be granted only when a request for an extension is  
23 submitted in a timely fashion, generally at least 30 days prior to expiration of the deadline for  
24 which the extension is requested, and good cause exists for granting the extension. All  
25 extensions shall be requested in writing. The request shall specify the reason(s) the extension is  
26 needed.

1 An extension shall only be granted for such period of time as Ecology determines is  
2 reasonable under the circumstances. A requested extension shall not be effective until approved  
3 by Ecology or the Court. Ecology shall act upon any written request for extension in a timely  
4 fashion. It shall not be necessary to formally amend this Decree pursuant to Section XV when a  
5 schedule extension is granted.

6 B. The burden shall be on the Weyerhaeuser Company to demonstrate to the  
7 satisfaction of Ecology that the request for such extension has been submitted in a timely fashion  
8 and that good cause exists for granting the extension. Good cause includes, but is not limited to,  
9 the following:

10 (1) Circumstances beyond the reasonable control and despite the due diligence  
11 of Weyerhaeuser Company including delays caused by unrelated third parties or Ecology, such  
12 as (but not limited to) delays by Ecology in reviewing, approving, or modifying documents  
13 submitted by Weyerhaeuser Company; or

14 (2) Acts of God, including fire, flood, blizzard, extreme temperatures, storm,  
15 or other unavoidable casualty; or

16 (3) Endangerment as described in Section XVII.

17 However, neither increased costs of performance of the terms of the Decree nor changed  
18 economic circumstances shall be considered circumstances beyond the reasonable control of  
19 Weyerhaeuser Company.

20 C. Ecology may extend the schedule for a period not to exceed ninety (90) days,  
21 except where an extension is needed as a result of:

22 (1) Delays in the issuance of a necessary permit which was applied for in a  
23 timely manner; or

24 (2) Other circumstances deemed exceptional or extraordinary by Ecology; or

25 (3) Endangerment as described in Section XVII.

26 Ecology shall give Weyerhaeuser Company written notification in a timely fashion of  
Ecology's decision.

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## XVII. ENDANGERMENT

In the event Ecology determines that activities implementing or in noncompliance with this Decree, or any other circumstances or activities, are creating or have the potential to create a danger to the health or welfare of the people on the Site or in the surrounding area or to the environment, Ecology may order Weyerhaeuser Company to stop further implementation of this Decree for such period of time as needed to abate the danger or may petition the Court for an order as appropriate. During any stoppage of work under this section, the obligations of Weyerhaeuser Company with respect to the work under this Decree which is ordered to be stopped shall be suspended and the time periods for performance of that work, as well as the time period for any other work dependent upon the work which is stopped, shall be extended, pursuant to Section XVI of this Decree, for such period of time as Ecology determines is reasonable under the circumstances.

In the event Weyerhaeuser Company determines that activities undertaken in furtherance of this Decree or any other circumstances or activities are creating an endangerment to the people on the Site or in the surrounding area or to the environment, Weyerhaeuser Company may stop implementation of this Decree for such period of time necessary for Ecology to evaluate the situation and determine whether Weyerhaeuser Company should proceed with implementation of the Decree or whether the work stoppage should be continued until the danger is abated. Weyerhaeuser Company shall notify Ecology's project coordinator as soon as possible, but no later than twenty-four (24) hours after such stoppage of work, and thereafter provide Ecology with documentation of the basis for the work stoppage. If Ecology disagrees with the Weyerhaeuser Company determination, it may order Weyerhaeuser Company to resume implementation of this Decree. If Ecology concurs with the work stoppage, the Weyerhaeuser Company obligations shall be suspended and the time period for performance of that work, as well as the time period for any other work dependent upon the work which was stopped, shall be extended, pursuant to Section XVI of this Decree, for such period of time as Ecology determines

1 is reasonable under the circumstances. Any disagreements pursuant to the clause shall be  
2 resolved through the dispute resolution procedures in Section XIV.

### 3 XVIII. OTHER ACTIONS

4 Ecology reserves its rights to institute remedial action(s) at the Site and subsequently  
5 pursue cost recovery, and Ecology reserves its rights to issue orders and/or penalties or take any  
6 other enforcement action pursuant to available statutory authority under the following  
7 circumstances:

8 (1) Where Weyerhaeuser Company fails, after notice, to comply with any  
9 requirement of this Decree;

10 (2) In the event or upon the discovery of a release or threatened release not addressed  
11 by this Decree;

12 (3) Upon Ecology's determination that action beyond the terms of this Decree is  
13 necessary to abate an emergency situation which threatens public health or welfare or the  
14 environment; or

15 (4) Upon the occurrence or discovery of a situation beyond the scope of this Decree  
16 as to which Ecology would be empowered to perform any remedial action or to issue an order  
17 and/or penalty, or to take any other enforcement action. This Decree is limited in scope to the  
18 geographic Site described in Exhibit A and to those contaminants which Ecology knows to be at  
19 the Site when this Decree is entered.

20 Ecology reserves all rights regarding the injury to, destruction of, or loss of natural  
21 resources resulting from the release or threatened release of hazardous substances from the  
22 Weyerhaeuser Mill E/Koppers Site.

23 Ecology reserves the right to take any enforcement action whatsoever, including a cost  
24 recovery action, against potentially liable persons not party to this Decree.

25 This Consent Decree is without prejudice to, and Weyerhaeuser reserves the right to  
26 assert, all of its defenses with respect to any such actions against Weyerhaeuser by Ecology that  
are outside the scope of this decree.

1 **XIX. INDEMNIFICATION**

2 Weyerhaeuser Company agrees to indemnify and save and hold the State of Washington,  
3 its employees, and agents harmless from any and all claims or causes of action for death or  
4 injuries to persons or for loss or damage to property arising from or on account of acts or  
5 omissions of Weyerhaeuser Company, its officers, employees, agents, or contractors in entering  
6 into and implementing this Decree. However, the Weyerhaeuser Company shall not indemnify  
7 the State of Washington nor save nor hold its employees and agents harmless from any claims or  
8 causes of action arising out of the negligent acts or omissions of the State of Washington, or the  
9 employees or agents of the State, in implementing the activities pursuant to this Decree.

10 **XX. COMPLIANCE WITH APPLICABLE LAWS**

11 A. All actions carried out by Weyerhaeuser Company pursuant to this Decree shall  
12 be done in accordance with all applicable federal, state, and local requirements, including  
13 requirements to obtain necessary permits, except as provided in paragraph B. of this section.

14 B. Pursuant to RCW 70.105D.090(1), the substantive requirements of chapters 70.94,  
15 70.95, 70.105, 75.20, 90.48, and 90.58 RCW and of any laws requiring or authorizing local  
16 government permits or approvals for the remedial action under this Decree that are known to be  
17 applicable at the time of entry of the Decree have been included in Exhibit C, the Cleanup Action  
18 Plan, and are binding and enforceable requirements of the Decree. Weyerhaeuser Company has  
19 a continuing obligation to determine whether additional permits or approvals addressed in RCW  
20 70.105D.090(1) would otherwise be required for the remedial action under this Decree. In the  
21 event either Weyerhaeuser Company or Ecology determines that additional permits or approvals  
22 addressed in RCW 70.105D.090(1) would otherwise be required for the remedial action under  
23 this Decree, it shall promptly notify the other party of this determination. Ecology shall  
24 determine whether Ecology or Weyerhaeuser Company shall be responsible to contact the  
25 appropriate state and/or local agencies. If Ecology so requires, Weyerhaeuser Company shall  
26 promptly consult with the appropriate state and/or local agencies and provide Ecology with  
written documentation from those agencies of the substantive requirements those agencies

1 believe are applicable to the remedial action. Ecology shall make the final determination on the  
2 additional substantive requirements that must be met by Weyerhaeuser Company and on how  
3 Weyerhaeuser Company must meet those requirements. Ecology shall inform Weyerhaeuser  
4 Company in writing of these requirements. Once established by Ecology, the additional  
5 requirements shall be enforceable requirements of this Decree. Weyerhaeuser Company shall not  
6 begin or continue the remedial action potentially subject to the additional requirements until  
7 Ecology makes its final determination.

8 Ecology shall ensure that notice and opportunity for comment is provided to the public  
9 and appropriate agencies prior to establishing the substantive requirements under this section.

10 C. Pursuant to RCW 70.105D.090(2), in the event Ecology determines that the  
11 exemption from complying with the procedural requirements of the laws referenced in RCW  
12 70.105D.090(1) would result in the loss of approval from a federal agency which is necessary for  
13 the State to administer any federal law, the exemption shall not apply and the Weyerhaeuser  
14 Company shall comply with both the procedural and substantive requirements of the laws  
15 referenced in RCW 70.105D.090(1), including any requirements to obtain permits.

## 16 **XXI. REMEDIAL AND INVESTIGATIVE COSTS**

17 The Weyerhaeuser Company agrees to pay costs incurred by Ecology pursuant to this  
18 Decree. These costs shall include work performed by Ecology or its contractors for, or on, the  
19 Site under Ch. 70.105D RCW both prior to and subsequent to the issuance of this Decree for  
20 investigations, remedial actions, and Decree preparation, negotiations, oversight and  
21 administration. Ecology costs shall include costs of direct activities and support costs of direct  
22 activities as defined in WAC 173-340-550(2). The Weyerhaeuser Company agrees to pay the  
23 required amount within ninety (90) days of receiving from Ecology an itemized statement of  
24 costs that includes a summary of costs incurred, an identification of involved staff, and the  
25 amount of time spent by involved staff members on the project. A statement of work performed  
26 will be provided. Itemized statements shall be prepared quarterly. Failure to pay Ecology's costs  
within ninety (90) days of receipt of the itemized statement will result in interest charges.



1 **XXII. IMPLEMENTATION OF REMEDIAL ACTION**

2 If Ecology determines that Weyerhaeuser Company has failed without good cause to  
3 implement the remedial action, Ecology may, after notice to Weyerhaeuser Company, perform  
4 any or all portions of the remedial action that remain incomplete. If Ecology performs all or  
5 portions of the remedial action because of the Weyerhaeuser Company's failure to comply with  
6 its obligations under this Decree, Weyerhaeuser Company shall reimburse Ecology for the costs  
7 of doing such work in accordance with Section XXI, provided that Weyerhaeuser Company is  
8 not obligated under this section to reimburse Ecology for costs incurred for work inconsistent  
9 with or beyond the scope of this Decree.

10 **XXIII. PERFORMANCE AND COMPLIANCE MONITORING**

11 Monitoring the effectiveness of the remediation will be addressed by evaluating the  
12 performance of the cleanup action by inspections of the asphalt cap, water level monitoring both  
13 inside and outside of the containment barrier wall, and ground water monitoring of TPH, PCP,  
14 and As. The Performance and Compliance Monitoring Plan is attached as Exhibit E.

15 The asphalt cap shall be inspected for signs of failure semi-annually for the first two  
16 years and annually for years 3 through 5. During the first two years of inspections at least one  
17 inspection shall occur during a storm event. The observations will be discussed in an annual  
18 monitoring report.

19 The ground water elevation shall be collected at each of the ground water monitoring wells,  
20 quarterly for year one, semi-annually for years two and three and annually for years four and  
21 five. The ground water elevations will be used to determine water balance within the  
22 containment system and hydraulic gradients across the containment. Weyerhaeuser will  
23 immediately notify Ecology if the data shows significant water flow into or out of the  
24 containment system. The effectiveness of the containment system will be discussed in the annual  
25 monitoring report. Should a steadily increasing water elevation within the containment system  
26 become apparent, Weyerhaeuser shall notify Ecology to discuss the significance of the trend and  
the engineering method that shall be used to correct the trend. Weyerhaeuser shall then

1 implement the corrective action and monitor the containment to determine if the corrective action  
2 is effective.

3 Weyerhaeuser shall use one monitoring well on the Site for monitoring the following  
4 chemical constituents TPH, PCP and As within the containment barrier wall. The monitoring  
5 well shall be located within the containment area down gradient from the former treatment  
6 building in an area of contaminated soil and ground water. Constituents shall be monitored  
7 semi-annually in year one and annually in year 3 and year 5.

#### 8 **XXIV. FIVE YEAR REVIEW**

9 As remedial action, including ground water monitoring, continues at the Site, the parties  
10 agree to review the progress of remedial action at the Site, and to review the data accumulated as  
11 a result of site monitoring as often as is necessary and appropriate under the circumstances. At  
12 least every five years Ecology shall review the status of the Site and the need, if any, of further  
13 remedial action at the Site, and Ecology may require further remedial action at the Site, pursuant  
14 to WAC 173-340-420. This provision shall remain in effect for the duration of the Decree.

#### 15 **XXV. PUBLIC PARTICIPATION**

16 Prior to entry of this Consent Decree, Weyerhaeuser prepared and implemented a public  
17 participation plan for this Site which complied with MTCA and Chapter 173-340. Ecology shall  
18 maintain the responsibility for public participation at the Site. However, Weyerhaeuser  
19 Company shall continue to cooperate with Ecology and, if agreed to by Ecology, shall:

20 A. Prepare drafts of public notices and fact sheets where Ecology determines it is  
21 necessary. Ecology will finalize (including editing if necessary) and distribute such fact sheets  
22 and prepare and distribute public notices of Ecology's presentations and meetings;

23 B. Notify Ecology's project coordinator prior to the preparation of all press releases  
24 and fact sheets, and before major meetings with the interested public and local governments.  
25 Likewise, Ecology shall notify Weyerhaeuser Company prior to the issuance of all press releases  
26 and fact sheets, and before major meetings with the interested public and local governments;

1 C. Participate in public presentations on the progress of the remedial action at the  
2 Site. Participation may be through attendance at public meetings to assist in answering  
3 questions, or as a presenter;

4 D. In cooperation with Ecology, arrange and/or continue information repositories to  
5 be located at Everett Public Library and Ecology's Headquarters at 300 Desmond Drive, Lacey,  
6 WA. At a minimum, copies of all public notices, fact sheets, and press releases; all quality  
7 assured ground water, surface water, soil, sediment, and air monitoring data; remedial action  
8 plans, supplemental remedial planning documents, and all other similar documents relating to  
9 performance of the remedial action required by this Decree shall be promptly placed in these  
10 repositories.

11 **XXVI. DURATION OF DECREE**

12 This Decree shall remain in effect and the remedial program described in the Decree shall  
13 be maintained and continued until the Weyerhaeuser Company has received written notification  
14 from Ecology that the requirements of this Decree have been satisfactorily completed.

15 **XXVII. COVENANT NOT TO SUE**

16 In consideration of Weyerhaeuser's compliance with the terms and conditions of this  
17 Decree, the State of Washington covenants not to institute legal, equitable or administrative  
18 actions against Weyerhaeuser its successors and assigns, regarding matters within the scope of  
19 this Decree.

20 This covenant is strictly limited in its application to the Site specifically defined in  
21 Exhibit A and to contamination which Ecology knows to be located at the Site as of the entry of  
22 this Decree, except that this covenant is not applicable to the Arsenic contamination in soil and  
23 ground water located outside the vertical barrier wall to be constructed pursuant to Section  
24 VI.C.7. The state retains all of its authority relative to such arsenic contamination.

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**XXVIII. CLAIMS AGAINST THE STATE**

Weyerhaeuser Company hereby agrees that it will not seek to recover any costs accrued in implementing the remedial action required by this Decree from the State of Washington or any of its agencies; and further, that the Weyerhaeuser Company will make no claim against the State Toxics Control Account or any Local Toxics Control Account for any costs incurred in implementing this Decree. Except as provided above, however, Weyerhaeuser Company expressly reserves its right to seek to recover any costs incurred in implementing this Decree from any other potentially liable person.

**XXIX. CONTRIBUTION PROTECTION**

By signing this Decree, the parties intend that Weyerhaeuser will receive the protection against claims for contribution for matters addressed in this Decree that is provided in RCW 70 106D.040(d)(4).

**XXX. EFFECTIVE DATE**

This Decree is effective upon the date it is entered by the Court.

**XXXI. PUBLIC NOTICE AND WITHDRAWAL OF CONSENT**

This Decree has been the subject of public notice and comment under RCW 70.105D.040(4)(a). As a result of this process, Ecology has found that this Decree will lead to a more expeditious cleanup of hazardous substances at the Site.

If the Court withholds or withdraws its consent to this Decree, it shall be null and void at the option of any party and the accompanying Complaint shall be dismissed without costs and without prejudice. In such an event, no party shall be bound by the requirements of this Decree.

STATE OF WASHINGTON  
DEPARTMENT OF ECOLOGY

CHRISTINE O. GREGOIRE  
Attorney General

\_\_\_\_\_  
JIM PENDOWSKI  
Program Manager  
Toxics Cleanup Program

\_\_\_\_\_  
TOM MORRIL, WSBA #18388  
Assistant Attorney General

DATED: \_\_\_\_\_


DATED: \_\_\_\_\_

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WEYERHAEUSER COMPANY

WEYERHAEUSER COMPANY

  
Name: John P. Gross

  
JOSEPH P. JACKOWSKI, WSBA #12903  
Attorney for Weyerhaeuser Company

Title: Sr Environmental Mgr

DATED 11/12/98

DATED 11/12/98

DATED this \_\_\_\_\_ day of \_\_\_\_\_, 199\_.

JUDGE  
Snohomish County Superior Court

JJ398

**EXHIBIT A**

**LEGAL DESCRIPTION**

**Weyerhaeuser Mill E/Koppers Site  
Everett, Washington**

PD TRACT 11-3 LEGAL DESCRIPTION AFTER BOUNDARY LINE ADJUSTMENT

THAT PORTION OF GOVERNMENT LOT 7 AND THE SOUTHEAST QUARTER OF THE SOUTHEAST QUARTER OF SECTION 8, AND THAT PORTION OF GOVERNMENT LOT 9, SECTION 9, TOWNSHIP 29 NORTH, RANGE 5 EAST OF THE WILLAMETTE MERIDIAN, DESCRIBED AS FOLLOWS: COMMENCING AT THE POINT OF INTERSECTION OF THE SOUTH LINE OF SAID GOVERNMENT LOT 9, SECTION 9, WITH THE CENTER LINE OF THE ORIGINAL MAIN TRACK OF THE NORTHERN PACIFIC RAILWAY COMPANY, WHICH POINT BEARS NORTH 89° 12' 51" EAST A DISTANCE OF 67.76 FEET FROM THE SOUTHWEST CORNER OF SAID GOVERNMENT LOT 9, ALL AS SHOWN ON THAT CERTAIN SURVEY RECORDED IN VOLUME 37 OF SURVEYS, PAGES 196 THROUGH 206, INCLUSIVE, RECORDS OF SNOMISH COUNTY, WASHINGTON; THENCE NORTH 89° 12' 51" EAST, ALONG THE SOUTH LINE OF SAID GOVERNMENT LOT 9, A DISTANCE OF 21.17 FEET TO A POINT ON THE EAST LINE OF THE NORTHERN PACIFIC RAILWAY COMPANY 100 FOOT WIDE FORMER RIGHT OF WAY AS SHOWN ON SAID SURVEY, WHICH POINT IS THE TRUE POINT OF BEGINNING; THENCE NORTH 19° 57' 15" WEST, ALONG THE EAST LINE OF SAID RIGHT OF WAY, A DISTANCE OF 2364.81 FEET; THENCE ON A CURVE OF THE EAST LINE OF SAID RIGHT OF WAY, TO THE LEFT, HAVING A RADIUS OF 784.49 FEET, THROUGH A CENTRAL ANGLE OF 3° 41' 30", AN ARC DISTANCE OF 50.55 FEET TO A POINT ON THE SOUTH LINE OF THAT CERTAIN TRACT DESIGNATED AS PARCEL NO. 2 IN THAT DEED DATED DECEMBER 1, 1892, FROM EVERETT LAND COMPANY, TO THE FUGET SOUND REDUCTION COMPANY OF CLEVELAND, OHIO, AND RECORDED IN VOLUME 30 OF DEEDS AT PAGE 113 IN THE OFFICE OF THE AUDITOR OF SAID SNOMISH COUNTY; THENCE NORTH 56° 25' 52" EAST, ALONG SAID SOUTH LINE OF PARCEL 2, TO THE LEFT BANK OF THE SNOMISH RIVER; THENCE IN A SOUTHERLY DIRECTION, ALONG THE LEFT BANK OF THE SNOMISH RIVER TO A POINT ON THE SOUTH LINE OF SAID GOVERNMENT LOT 9; THENCE SOUTH 89° 12' 51" WEST, ALONG THE SOUTH LINE OF SAID GOVERNMENT LOT 9, A DISTANCE OF 840.76 FEET TO THE TRUE POINT OF BEGINNING, EXCEPT ALL THAT PORTION OF SAID GOVERNMENT LOT 9, SECTION 9, DESCRIBED AS FOLLOWS: COMMENCING AT THE SOUTHWEST CORNER OF SAID SECTION 9; THENCE NORTH 89° 12' 51" EAST, ALONG THE SOUTH LINE OF SAID SECTION 9, A DISTANCE OF 432.39 FEET TO THE TRUE POINT OF BEGINNING; THENCE NORTH 57° 55' 37" EAST A DISTANCE OF 134.97 FEET; THENCE NORTH 74° 24' 33" EAST A DISTANCE OF 114.14 FEET; THENCE NORTH 81° 31' 30" EAST A DISTANCE OF 104.50 FEET; THENCE NORTH 71° 02' 33" EAST A DISTANCE OF 64.27 FEET; THENCE SOUTH 75° 03' 41" EAST A DISTANCE OF 105.54 FEET TO A POINT ON THE LINE OF MEAN HIGH TIDE OF THE LEFT BANK OF THE SNOMISH RIVER, WHICH POINT IS ON THE FACE OF A TIMBER BULKHEAD; THENCE SOUTH 09° EAST, ALONG SAID LINE OF MEAN HIGH TIDE AND SAID TIMBER BULKHEAD A DISTANCE OF 104.83 FEET TO A POINT ON THE SOUTH LINE OF SAID SECTION 9; THENCE SOUTH 89° 12' 51" WEST, ALONG SAID SOUTH LINE OF SECTION 9, A DISTANCE OF 497.30 FEET TO THE TRUE POINT OF BEGINNING. CONTAINING 54.71 ACRES, MORE OR LESS.

PD TRACT 11-4 LEGAL DESCRIPTION AFTER BOUNDARY LINE ADJUSTMENT

ALL THAT PORTION OF GOVERNMENT LOT 9, IN SECTION 9, TOWNSHIP 29 NORTH, RANGE 5 EAST OF THE WILLAMETTE MERIDIAN, DESCRIBED AS FOLLOWS: COMMENCING AT THE SOUTHWEST CORNER OF SAID GOVERNMENT LOT 9; THENCE NORTH 89° 12' 51" EAST, ALONG THE SOUTH LINE OF SAID SECTION 9, A DISTANCE OF 432.39 FEET TO THE TRUE POINT OF BEGINNING; THENCE NORTH 57° 55' 37" EAST A DISTANCE OF 134.97 FEET; THENCE NORTH 74° 24' 33" EAST A DISTANCE OF 114.14 FEET; THENCE NORTH 81° 31' 30" EAST A DISTANCE OF 104.50 FEET; THENCE NORTH 71° 02' 33" EAST A DISTANCE OF 64.27 FEET; THENCE SOUTH 75° 03' 41" EAST A DISTANCE OF 105.54 FEET TO A POINT ON THE LINE OF MEAN HIGH TIDE OF THE LEFT BANK OF THE SNOMISH RIVER, WHICH POINT IS ON THE FACE OF A TIMBER BULKHEAD; THENCE SOUTH 09° EAST, ALONG SAID LINE OF MEAN HIGH TIDE AND SAID TIMBER BULKHEAD A DISTANCE OF 104.83 FEET TO A POINT ON THE SOUTH LINE OF SAID SECTION 9; THENCE SOUTH 89° 12' 51" WEST, ALONG SAID SOUTH LINE OF SECTION 9, A DISTANCE OF 497.30 FEET TO THE TRUE POINT OF BEGINNING. TOGETHER WITH THAT PORTION OF GOVERNMENT LOT 2 OF SECTION 16 IN TOWNSHIP 29 NORTH, RANGE 5 EAST OF THE WILLAMETTE MERIDIAN, BEING A PORTION OF LOTS "A", "B", "C" AND "D" OF THE FLAT OF SUBDIVISION OF LOT 2 SEC. 16 T. 29 N. R. 5 E. W. M., ACCORDING TO THE PLAT THEREOF RECORDED IN VOLUME 5 OF PLATS, PAGE 16, RECORDS OF SNOMISH COUNTY, WASHINGTON, DESCRIBED AS FOLLOWS: COMMENCING AT THE NORTHWEST CORNER OF SAID GOVERNMENT LOT 2; THENCE NORTH 89° 12' 51" EAST, ALONG THE NORTH LINE OF SAID SECTION 16, A DISTANCE OF 432.39 FEET TO THE TRUE POINT OF BEGINNING; THENCE SOUTH 57° 55' 37" WEST A DISTANCE OF 41.01 FEET; THENCE SOUTH 12° 56' 04" WEST A DISTANCE OF 117.99 FEET; THENCE SOUTH 27° 44' 21" EAST A DISTANCE OF 715.71 FEET TO A POINT ON THE LINE OF MEAN HIGH TIDE OF THE LEFT BANK OF THE SNOMISH RIVER, WHICH POINT IS ON THE FACE OF A TIMBER BULKHEAD; THENCE IN A NORTHERLY DIRECTION, ALONG SAID LINE OF MEAN HIGH TIDE AND SAID TIMBER BULKHEAD ON THE FOLLOWING COURSES: NORTH 18° 40' 16" EAST 417.89 FEET, NORTH 16° 03' 42" EAST 84.09 FEET, NORTH 13° 24' 08" EAST 90.75 FEET, NORTH 8° 49' 41" EAST 63.97 FEET, NORTH 5° 57' 29" EAST 86.56 FEET, NORTH 3° 28' 47" EAST 85.16 FEET, NORTH 0° 17' 19" EAST 64.72 FEET, NORTH 3° 44' 09" WEST 50.28 FEET TO A POINT ON THE NORTH LINE OF SAID SECTION 16; THENCE SOUTH 89° 12' 51" WEST, ALONG SAID NORTH LINE OF SECTION 16; THENCE SOUTH 89° 12' 51" FEET TO THE TRUE POINT OF BEGINNING. CONTAINING 8.40 ACRES, MORE OR LESS.



PD TRACT 11-4 LEGAL DESCRIPTION AFTER BOUNDARY LINE ADJUSTMENT

ALL THAT PORTION OF GOVERNMENT LOT 9, IN SECTION 9, TOWNSHIP 29 NORTH, RANGE 5 EAST OF THE WILLAMETTE MERIDIAN, DESCRIBED AS FOLLOWS: COMMENCING AT THE SOUTHWEST CORNER OF SAID GOVERNMENT LOT 9; THENCE NORTH 89° 12' 51" EAST, ALONG THE SOUTH LINE OF SAID SECTION 9, A DISTANCE OF 432.39 FEET TO THE TRUE POINT OF BEGINNING; THENCE NORTH 57° 55' 37" EAST A DISTANCE OF 134.97 FEET; THENCE NORTH 74° 24' 33" EAST A DISTANCE OF 114.14 FEET; THENCE NORTH 81° 31' 30" EAST A DISTANCE OF 104.50 FEET; THENCE NORTH 71° 02' 33" EAST A DISTANCE OF 64.27 FEET; THENCE SOUTH 75° 03' 41" EAST A DISTANCE OF 105.54 FEET TO A POINT ON THE LINE OF MEAN HIGH TIDE OF THE LEFT BANK OF THE SNOHOMISH RIVER, WHICH POINT IS ON THE FACE OF A TIMBER BULKHEAD; THENCE SOUTH 3° 44' 09" EAST, ALONG SAID LINE OF MEAN HIGH TIDE AND SAID TIMBER BULKHEAD A DISTANCE OF 104.83 FEET TO A POINT ON THE SOUTH LINE OF SAID SECTION 9; THENCE SOUTH 89° 12' 51" WEST, ALONG SAID SOUTH LINE OF SECTION 9, A DISTANCE OF 497.30 FEET TO THE TRUE POINT OF BEGINNING.

TOGETHER WITH THAT PORTION OF GOVERNMENT LOT 2 OF SECTION 16 IN TOWNSHIP 29 NORTH, RANGE 5 EAST OF THE WILLAMETTE MERIDIAN, BEING A PORTION OF LOTS "A", "B", "C" AND "D" OF THE PLAT OF SUBDIVISION OF LOT 2 SEC.16 T.29 N.R.5 E.W.M., ACCORDING TO THE PLAT THEREOF RECORDED IN VOLUME 5 OF PLATS, PAGE 16, RECORDS OF SNOHOMISH COUNTY, WASHINGTON, DESCRIBED AS FOLLOWS: COMMENCING AT THE NORTHWEST CORNER OF SAID GOVERNMENT LOT 2; THENCE NORTH 89° 12' 51" EAST, ALONG THE NORTH LINE OF SAID SECTION 16, A DISTANCE OF 432.39 FEET TO THE TRUE POINT OF BEGINNING; THENCE SOUTH 57° 55' 37" WEST A DISTANCE OF 41.01 FEET; THENCE SOUTH 12° 56' 04" WEST A DISTANCE OF 142.05 FEET; THENCE SOUTH 15' 31' 15" EAST A DISTANCE OF 117.99 FEET; THENCE SOUTH 27° 44' 21" EAST A DISTANCE OF 715.71 FEET TO A POINT ON THE LINE OF MEAN HIGH TIDE OF THE LEFT BANK OF THE SNOHOMISH RIVER, WHICH POINT IS ON THE FACE OF A TIMBER BULKHEAD; THENCE IN A NORTHERLY DIRECTION, ALONG SAID LINE OF MEAN HIGH TIDE AND SAID TIMBER BULKHEAD ON THE FOLLOWING COURSES: NORTH 18° 40' 16" EAST 417.89 FEET, NORTH 16° 03' 42" EAST 84.09 FEET, NORTH 13° 24' 08" EAST 90.75 FEET, NORTH 8° 49' 41" EAST 63.97 FEET, NORTH 5° 57' 29" EAST 86.56 FEET, NORTH 3° 28' 47" EAST 85.16 FEET, NORTH 0° 17' 19" EAST 64.72 FEET, NORTH 3° 44' 09" WEST 50.28 FEET TO A POINT ON THE NORTH LINE OF SAID SECTION 16; THENCE SOUTH 89° 12' 51" WEST, ALONG SAID NORTH LINE OF SECTION 16, A DISTANCE OF 497.30 FEET TO THE TRUE POINT OF BEGINNING. CONTAINING 8.40 ACRES, MORE OR LESS.

PD TRACT 25 LEGAL DESCRIPTION AFTER BOUNDARY LINE ADJUSTMENT

THAT PORTION OF GOVERNMENT LOT 2 OF SECTION 16 IN TOWNSHIP 29 NORTH, RANGE 5 EAST OF THE WILLAMETTE MERIDIAN, DESCRIBED AS FOLLOWS; LOT 7 OF THE SUPPLEMENTAL PLAT OF THE SUBDIVISION OF LOT 2, SECTION 16, TOWNSHIP 29 NORTH, RANGE 5 EAST OF THE WILLAMETTE MERIDIAN, ACCORDING TO THE OFFICIAL PLAT THEREOF ON FILE IN THE OFFICE OF THE COMMISSIONER OF PUBLIC LANDS AT OLYMPIA, WASHINGTON.

TOGETHER WITH LOTS "A", "B", "C", "D" AND "E", PLAT OF SUBDIVISION OF LOT 2 SEC. 16 T.29 N.R.5 E.W.M., ACCORDING TO THE PLAT THEREOF RECORDED IN VOLUME 5 OF PLATS AT PAGE 16, RECORDS OF SNOHOMISH COUNTY, WASHINGTON, BEING A SUBDIVISION OF SAID GOVERNMENT LOT 2. EXCEPT THEREFROM THAT CERTAIN 100 FOOT WIDE RIGHT OF WAY CONVEYED BY WEYERHAEUSER LUMBER COMPANY TO NORTHERN PACIFIC RAILWAY COMPANY BY DEED DATED MAY 8, 1915, AND RECORDED SEPTEMBER 23, 1915, UNDER AUDITOR'S FILE NUMBER 214488, AND FILED IN VOLUME 167 OF DEEDS AT PAGES 133 AND 134, RECORDS OF SAID COUNTY. ALSO EXCEPT THAT PORTION THEREOF DESCRIBED AS FOLLOWS: COMMENCING AT THE NORTHWEST CORNER OF SAID GOVERNMENT LOT 2; THENCE NORTH 89° 12' 51" EAST, ALONG THE NORTH LINE OF SAID SECTION 16 A DISTANCE OF 432.39 FEET TO THE TRUE POINT OF BEGINNING; THENCE SOUTH 57° 55' 37" WEST A DISTANCE OF 41.01 FEET; THENCE SOUTH 12° 56' 04" WEST A DISTANCE OF 142.05 FEET; THENCE SOUTH 15' 31' 15" EAST A DISTANCE OF 117.99 FEET; THENCE SOUTH 27° 44' 21" EAST A DISTANCE OF 715.71 FEET TO A POINT ON THE LINE OF MEAN HIGH TIDE OF THE LEFT BANK OF THE SNOHOMISH RIVER, WHICH POINT IS ON THE FACE OF A TIMBER BULKHEAD; THENCE IN A NORTHERLY DIRECTION, ALONG SAID LINE OF MEAN HIGH TIDE AND SAID TIMBER BULKHEAD ON THE FOLLOWING COURSES: NORTH 18° 40' 16" EAST 417.89 FEET, NORTH 16° 03' 42" EAST 84.09 FEET, NORTH 13° 24' 08" EAST 90.75 FEET, NORTH 8° 49' 41" EAST 63.97 FEET, NORTH 5° 57' 29" EAST 86.56 FEET, NORTH 3° 28' 47" EAST 85.16 FEET, NORTH 0° 17' 19" EAST 64.72 FEET, NORTH 3° 44' 09" WEST 50.28 FEET TO A POINT ON THE NORTH LINE OF SAID SECTION 16; THENCE SOUTH 89° 12' 51" WEST, ALONG SAID NORTH LINE OF SECTION 16, A DISTANCE OF 497.30 FEET TO THE TRUE POINT OF BEGINNING. CONTAINING 16.35 ACRES, MORE OR LESS.

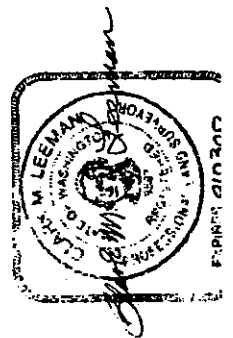


Exhibit A

**EXHIBIT B**

**SITE DIAGRAM**

**Weyerhaeuser Mill E/Koppers Site  
Everett, Washington**

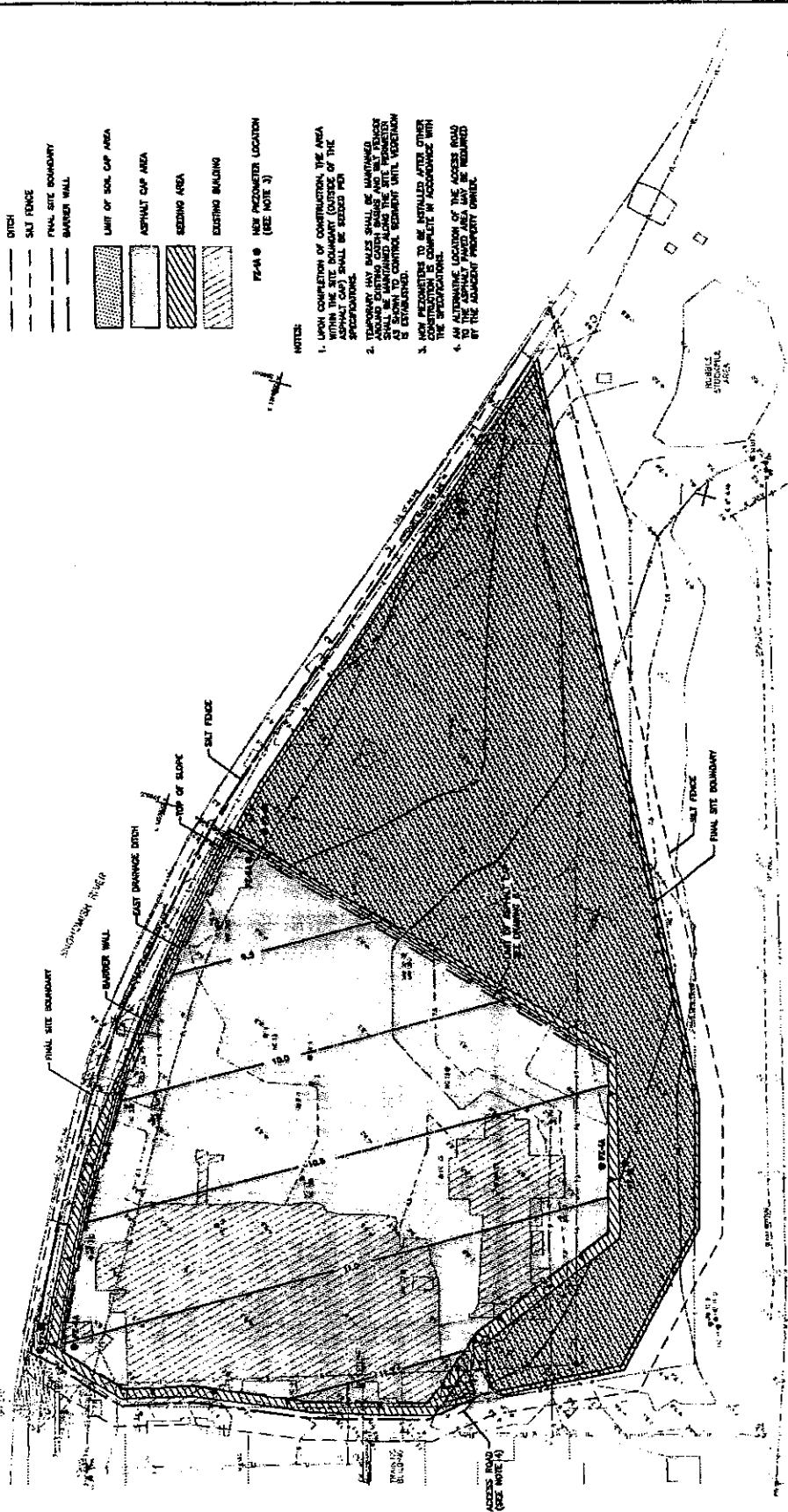
LEGEND

- ASPHALT CONTOUR
- SOIL CAP CONTOUR
- DASH-DOT LINE
- LIMIT OF ASPHALT CAP
- DITCH
- SALT FENCE
- FINAL SITE BOUNDARY
- BARBER WALL
- [Hatched Box] LIMIT OF SOIL CAP AREA
- [Dotted Box] ASPHALT CAP AREA
- [Diagonal Lines] SEEDING AREA
- [Cross-hatched Box] EXISTING BUILDING
- NEW PERIMETER LOCATION (SEE NOTE 3)

FIG. 9 NEW PERIMETER LOCATION (SEE NOTE 3)

NOTES:

1. UPON COMPLETION OF CONSTRUCTION, THE AREA WITHIN THE LIMIT OF SOIL CAP AND ASPHALT CAP SHALL BE SEEDING PER SPECIFICATIONS.
2. TEMPORARY RAY BAILS SHALL BE MAINTAINED AND RAY BAILING CONTINUED UNTIL THE PERIMETER IS SHOWN TO CONTAIN REMOVED UNTIL VERIFICATION IS ESTABLISHED.
3. NEW PERIMETERS TO BE INSTALLED AND OTHER PERIMETERS TO BE COMPLETED IN ACCORDANCE WITH THE SPECIFICATIONS.
4. AN ALTERNATE LOCATION OF THE ACCESS ROAD TO THE ASPHALT PAVED AREA MAY BE REQUIRED BY THE ADJACENT PROPERTY OWNER.



NOT FOR CONSTRUCTION

DATE	BY	CHK'D BY	APP'D BY
01/17/88	CLM	CLM	CLM
DATE FOR COPY OF DAILY REPORT	BY	CHK'D BY	APP'D BY
01/17/88	CLM	CLM	CLM



WEYERHAEUSER COMPANY  
WEYERHAEUSER EVERETT MILL  
EVERETT, WASHINGTON  
FORMER MILL NO. 1 KOPPEL SITE REMEDIATION  
SCHEMATIC REMEDIATION PLAN

DRAWING NO.  
**1-2**  
PROJECT NO.  
4411-031719

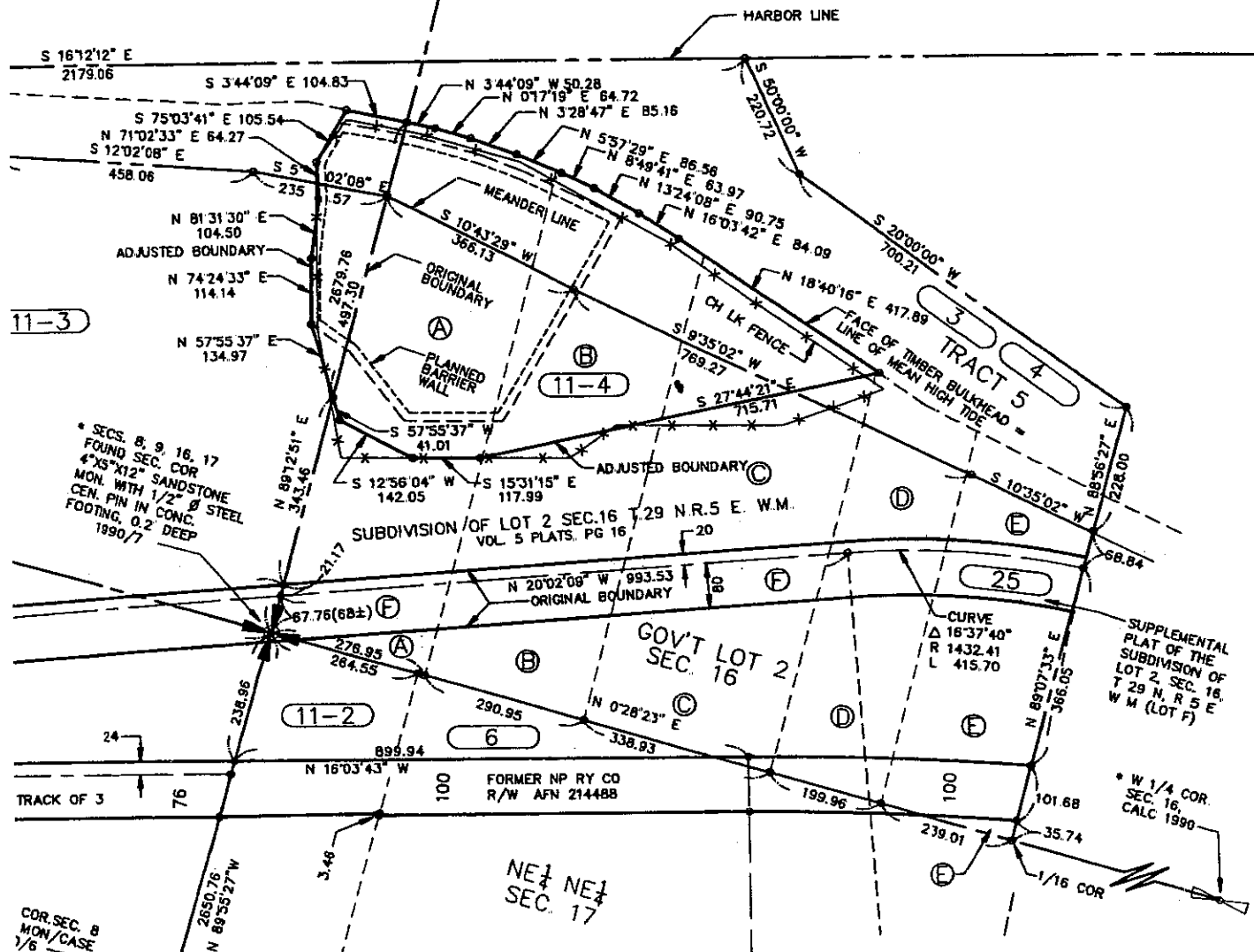
THIS MAP IS CONSIDERED TO BE A FINAL INSTRUMENT OF SERVICE BY CLARY M. LERNANZ SURVEYING IN DECEMBER, 1987.

SCALE (1:1)

CUR. SEC. 9  
1990 2" IRON PIPE

Exhibit B

MISH RIVER WATERWAY



\* SECS. 8, 9, 16, 17  
FOUND SEC. COR  
4" X 5" X 12" SANDSTONE  
MON. WITH 1/2" Ø STEEL  
CEN. PIN IN CONC.  
FOOTING, 0.2' DEEP  
1990/7

SUPPLEMENTAL  
PLAT OF THE  
SUBDIVISION OF  
LOT 2, SEC. 16,  
T 29 N, R 5 E  
W M (LOT F)

**SURVEYOR'S CERTIFICATE**

This map correctly represents a survey made by me or under my direction in conformance with the requirements of the Survey Recording Act at the request of WEYERHAEUSER COMPANY

In JULY 19 97

Certificate No. 9597

REVISED FEB 9, 1998



Page 2

- GOV'T LOT 7= ± NE 1/4 SE 1/4 SEC 8
- GOV'T LOT 9= ± SW 1/4 SW 1/4 SEC 9
- GOV'T LOT 2= ± NW 1/4 NW 1/4 SEC 16

9802235001

SHEET 1 OF 2

**RECORDING CERTIFICATE**

Filed for record this 23rd day of February 1998, at 10:21 A.M. in Volume (See AFN) of Surveys at page at the request of Weyerhaeuser Company

**WEYERHAEUSER COMPANY**  
**BOUNDARY LINE ADJUSTMENT**  
 PTN GOV'T LOT 7 & SE 1/4 SE 1/4 SEC 8, & GOV'T LOT 9 SEC 9,  
 & PTN GOV'T LOT 2 SEC 16, T 29 N, R 5 E WM  
 EVERETT, WASHINGTON

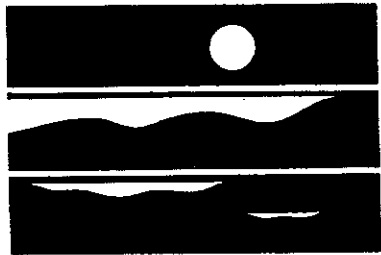
**Exhibit C**

**CLEANUP ACTION PLAN**

**Weyerhaeuser Mill E / Koppers Site  
Everett, Washington**

**Prepared by**

**Washington Department of Ecology  
October 8, 1998**



**WASHINGTON STATE  
DEPARTMENT OF  
E C O L O G Y**

# Cleanup Action Plan

Weyerhaeuser Company  
Everett Mill E / Koppers Site  
Everett, Washington

October 8, 1998

## 1.1 PURPOSE

This document is the Cleanup Action Plan (CAP) for the Weyerhaeuser Company – Everett Mill E/Koppers Site. The CAP outlines the steps and procedures for conducting an environmental cleanup of the Weyerhaeuser Mill E/Koppers Site and includes data and site-specific information obtained from various assessment reports and work plans.

The Mill E/Koppers Site consists of one 8.9-acre parcel of industrial property, which is located on the banks of the Snohomish River, three miles northeast of downtown Everett, Washington. The Mill E/Koppers Site is adjacent to the former Weyerhaeuser East Site. The East Site was a former industrial sawmill that was remediated through a separate consent decree in 1997.

The Mill E/Koppers Site formerly consisted of a sawmill and a wood treating facility. Weyerhaeuser began operations in the Everett area in 1902. In 1915, Weyerhaeuser built a large sawmill complex (Mill B), which was located west and north of the Site. The Site was used for log storage from 1915 until 1948, when American Lumber Treating Co. (ALTC) leased the Site from Weyerhaeuser. ALTC constructed a wood-treatment facility and began wood treatment operations at the Site. Koppers Co. acquired ALTC in 1954. Wood treatment at the facility continued until 1963, when the lease expired and Weyerhaeuser resumed use of the Site. Beginning in 1963, Weyerhaeuser gradually started to convert the former wood treatment facility into an equipment maintenance facility. The maintenance facility operated from 1963 until 1984. Activities at the maintenance facility consisted of petroleum fueling and maintenance of vehicles and engines. The petroleum storage tanks and some of the petroleum contaminated soil were removed from the Site in 1988. Weyerhaeuser built a sawmill, named Mill E, at the north end of the Site in 1971. Mill E was designed to handle small diameter logs and produce dimensional lumber. Mill E was shut down in 1984 and the building was demolished except for the foundation slab in 1988.

The cleanup action plan for the Mill E/Koppers Site is based on information provided from the following reports:

- (1) "Draft" Remedial Investigation Report for Former Mill E/Koppers Facility, Everett, Washington, Volume 1 Report, EMCON Northwest, Inc., September 1994.

- (2) "Draft" Remedial Investigation Report for Former Mill E/Koppers Facility Everett, Washington, Volume 2 (Appendices A-F), EMCON Northwest, Inc., September 1994.
- (3) "Draft" Remedial Investigation Report for Former Mill E/Koppers Facility, Everett, Washington; Volume 3 (Appendices G-I), EMCON Northwest, Inc., September 1994.
- (4) Treatability Study Summary Report Former Mill E/Koppers Facility, Everett, Washington, EMCON Northwest Inc., March 1994.
- (5) Ground water Monitoring Results Former Mill E/Koppers Facility, Everett, Washington, EMCON Northwest Inc., February 1994, August 1994, February 1995, August 1995, February 1996, August 1996
- (6) Results of Phase III Sediment Sampling Former Mill E/Koppers Facility, Everett, Washington, EMCON, April 1996.
- (7) Feasibility Study, Former Mill E/Koppers Facility Everett, Washington, EMCON, February 25, 1997.
- (8) Substantial and Disproportionate Cost Analysis, Former Mill E/Koppers Facility, Everett, Washington, EMCON, August 19, 1997.
- (9) Evaluation of Mass Removal Enhancements to Remedial Alternative 4 Former Mill E/Koppers Facility, Everett, Washington, EMCON, September 1997.
- (10) Description of Final Cleanup Action and RI/FS Summary, Former Mill E/Koppers Facility, Everett, Washington, EMCON, January 16, 1998.
- (11) Design Basis Memorandum, Former Mill E/Koppers Facility, Everett, Washington, EMCON, January 16, 1998.
- (12) Engineering Design Report, Former Mill E/Koppers Site Remediation, Everett, Washington, EMCON, March 11, 1998.
- (13) Performance and Compliance Monitoring Plan, Former Mill E/Koppers Facility, Everett, Washington, EMCON, March 11, 1998.

The CAP summarizes Site-specific data and information gathered from previous investigations and reports; summarizes the alternative cleanup scenarios examined by Weyerhaeuser in the course of developing a work plan; and describes the proposed cleanup. The CAP provides an opportunity for the public to comment on the Ecology proposed cleanup work plan.

## **1.2 APPLICABILITY**

This CAP is applicable only to the Weyerhaeuser Mill E/Koppers Site. The cleanup standards, and cleanup actions presented in this document have been developed as a result of a remediation process conducted with the Department of Ecology oversight. The cleanup levels and actions are Site specific and should not be considered as setting precedents for other similar sites.

Ecology is SEPA lead agency for this action. A threshold determination has been made to issue a Determination of Non-significance (DNS) for this cleanup project. The DNS will be public noticed concurrently with the CAP and the Consent Decree. A public hearing will be held concerning the action. Weyerhaeuser is exempt from shoreline permitting and a Hydraulic Project Approval from the Department of Wildlife. Weyerhaeuser has independently applied for a local grading permit from the City of Everett. The project is designed to be consistent with the City of Everett standard specifications and drainage ordinances. At this time no additional permits are required. In the event Ecology or Weyerhaeuser determines that additional permits are necessary for the remedial action, Weyerhaeuser will be notified and the substantive requirements of the permit will be determined and fulfilled.

Potentiality Liable Persons (PLP's) cleaning up sites independently, without Ecology oversight, may not cite numerical values of cleanup levels specified in this document as justification for cleanup levels in other unrelated sites. PLP's that are cleaning up sites under Ecology oversight must base cleanup levels and cleanup standards on site specific regulatory considerations and not on 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 extent where practicable. For this remediation project, treatment and recycle technologies were examined but not used. Treatment or recycle technologies were not selected because (1) these technologies could not successfully treat all dense non-aqueous petroleum contaminants found at the site and (2) the cost differences between the recycle and treatment alternatives were disproportionate to the incremental degree of protection provided when compared to removal and containment remedies. Removal of highly contaminated soils to an approved dangerous waste landfill and containment by barrier wall and cap, performance monitoring and institutional controls are the Ecology approved cleanup remedies for the affected material on the Site.

Site ground water is affected by contaminants from on-site and off-site sources. Water treatment technologies such as pump and treat were examined but were not considered practicable at this Site due to the physical nature of the dense non-aqueous contaminant. Limited source control (excavation), containment (barrier wall and cap) and institutional controls (deed restriction) are the chosen remediation strategies for the Site.



## **2.0 SITE DESCRIPTION AND HISTORY**

### **2.1 SITE LOCATION AND HISTORY**

The Weyerhaeuser Mill E/Koppers Site is located within the City of Everett, Washington along the bank of the Snohomish River. The Weyerhaeuser Company has been operating in the City of Everett since 1902. The Mill E/Koppers Site was once part of a larger sawmill complex known as Mill B or the East Site. Both the Mill E/Koppers Site and the area directly surrounding the Site are zoned M-2 heavy industry. Zoning is residential on the bluffs that overlook the Site. The bluffs are located about 1/8-mile west of the Site. The Site address is located at 515 East Marine View Drive, Everett, Washington. The Mill E/Koppers Site is legally described in Exhibit A, and a detailed Site diagram is shown in Exhibit B of the Consent Decree.

The Mill E/Koppers Site is 8.9 acres in size. Structures remaining on Site include a bulkhead constructed to retain dredge fill, a 7,800 square foot concrete foundation from the former wood treating building, and a 21,000 square foot slab concrete foundation from the former Mill E sawmill.

The Site was used as a lumber storage area from 1915 until 1948 when American Lumber and Treating Co. (ALTC) constructed a wood treating facility on leased Weyerhaeuser property. Koppers Company (later known as Beazer East, Inc ) acquired ALTC in 1954. Wood treatment at the facility continued until 1963, when the lease expired and Weyerhaeuser resumed using the facility for engine maintenance activities. The maintenance facility operated from 1963 until 1984. In 1971 Weyerhaeuser built a sawmill designed to handle small diameter logs on the north end of the Site. This facility known as Mill E was shut down in 1984 and the mill building along with the maintenance facility building were demolished in 1988. Since 1984 this site has been largely unused.

The ALTC wood treatment facility consisted of eight vertical aboveground storage tanks, two 132-foot-long by 6-foot-diameter steel retorts, above and under ground supply piping, and railroad supply lines. Wood treatment processes used creosote and creosote-petroleum solutions; Wolman salts (chromated copper arsenate (CCA)), "Minolith" fire retardant and pentachlorophenol. Lumber was treated while stacked on narrow-gauge railroad cars. The rail cars were moved into the retorts from the north, the retorts were sealed, and a vacuum was applied to remove surface moisture from the wood. Treatment chemicals were introduced into the retorts until filled, and then pressure was applied. Following a holding period to saturate the lumber, the retort was depressurized, the excess liquid was drained from the retort, and the lumber was removed. Treated lumber was stored and stacked temporarily on site or on rail cars. During retort depressurization the excess treatment liquid and air was blown into a pit known as the blow pit area east of the treatment buildings.

Weyerhaeuser began site assessment and investigations of the Mill E/Koppers Site in the late 1980's to determine soil, ground water, and surface water impacts from the industrial activities.

The site assessment activities included a review and analysis of plant blueprints, aerial photographs, agency files, interviews with former employees, historic fire insurance map and U.S.G.S topographic maps. The initial work indicated elevated levels of contaminants in soils and ground water on the site. The highest concentrations detected were centered at and east of the former wood treatment/maintenance building.

## **2.2 CURRENT STATUS.**

The Mill E sawmill and associated facilities have been demolished and removed. A concrete foundation slab remains on site. The Koppers wood treatment facility was decommissioned in 1963. The conversion to the engine maintenance shop resulted in the removal of several above ground storage tanks and two retorts. The maintenance shop was closed in 1984. With the closure of the maintenance facility Weyerhaeuser removed several large underground storage tanks and cleaned up a small area of petroleum contaminated soil. Only concrete foundations and small areas of narrow gauge track bed remain on site.

## **2.3 FUTURE USE**

All future land use will follow the M-2 zoning ordinances and will be limited by the deed restriction placed on the Site. Future Site uses will likely be similar to uses on the East Site, which is owned by the Port of Everett.

## **3.0 RESULTS OF ENVIRONMENTAL STUDIES**

### **3.1 SITE CHARACTERIZATION - GEOLOGY**

#### **3.1.1 Site Description**

The Mill E/Koppers Site is one of seven Model Toxics Control Act (MTCA) Operable Units found on the Weyerhaeuser property in Everett. Environmental assessments have been completed on all the operable unit Sites. General compounds analyzed on the Mill E/Koppers Site are: (a) soils - metals (arsenic, chromium, copper, lead, mercury), polychlorinated biphenols (PCBs), total petroleum hydrocarbons (TPH), semivolatile organic compounds (SVOCs), volatile organic compounds (VOCs), and dioxins/furans; and (b) ground water -- metals (arsenic, copper, lead, chromium, mercury), TPH, VOCs, and SVOCs. PCBs were detected in soil at only two locations, at very low levels (0.041 mg/kg), and are not discussed in any of the reports.

#### **3.1.2 Site Geology**

The Mill E/Koppers Site is located within the low-lying flood plain of the Snohomish River approximately two miles up stream from Port Gardner Bay in Possession Sound. The geologic deposits beneath the site consist of man-made materials overlying natural sediments. The following geologic units, listed from youngest to oldest are found on the site:

Grade and mixed fill unit;  
Upper sand unit (dredge fill);  
Upper silt unit (estuarine); and  
Lower sand unit (fluvial).

The units are described below.

**Grade Fill and Mixed Fill Unit.** Grade fill or mixed fill was encountered at the surface at most of the test pit and soil boring locations on Site. Grade fill apparently was placed at the Site to improve the working surface. The fill is composed of sandy gravel, asphalt, angular pebbles and cobbles of crushed rock, wood debris, and bark. The grade fill forms a very dense but permeable layer at the surface. The fill ranges from 1 foot to 4 feet in thickness.

**Upper Sand Unit.** The upper sand unit is comprised of gray brown to black, fine to medium sand with trace coarse sand. The upper unit averages 5 to 6 feet in thickness and ranges from less than a foot thick to 10.5 feet thick. The sand is typically uniform in texture and composition. Historical records indicate that the sand was dredged from the Snohomish River and placed on estuarine tidal flats. The dredge sand unit was encountered in all test pits and soil borings on Site. The unconfined ground water table is found in the unit at an average depth of 4 feet below the surface.

**Upper Silt Unit.** The upper silt unit was encountered in all borings penetrating the base of the upper sand at the site. The silt is composed of stiff, low plasticity to non-plastic, gray to brown to dark brown silt with abundant organic matter (wood fragments and rootlets) in the upper layers of the unit. Thin lenses of sand were found in all borings of the unit. The average thickness of the unit is 8 feet and ranges from 1 foot to 17 feet. The silt varies in thickness through out the Site and when thick appears to fill a former cutoff river channel.

**Lower Sand Unit.** The lower sand was encountered in all borings advanced below the base of the upper silt unit. The lower sand unit is composed of medium to coarse sand with trace gravel and wood debris. Zones of coarse sand and gravel were found in the unit approximately 5 to 8 feet below the base of the upper silt unit. The bottom of the lower sand was tentatively identified in one borehole on Site. The sand thickness at this borehole is 63 feet.

### 3.1.3 Site Hydrogeology – Hydrogeologic Units

The Site has been divided into four hydrostratigraphic units. These are, in order of increasing depth: grade fill and mixed fill, upper sand, upper silt, and lower sand.

**Grade Fill and Mixed Fill.** The grade fill unit is composed primarily of sandy gravel with or without abundant wood debris. The unit is not a barrier to water infiltration. Where compacted, the fill unit ponds water at the surface. The grade and mixed fill unit are unsaturated in all areas of the Site, but may be part of the capillary fringe of the Upper Sand aquifer during maximum water table conditions.

**Upper Sand Aquifer.** The upper sand hydrostratigraphic unit underlies the grade and mixed fill unit below the entire Site. The unit is sand and forms an unconfined aquifer. The water table depth is approximately 4 feet below ground surface. A capillary fringe is estimated to extend a few inches above the water table. The water table fluctuates annually approximately 2.5 feet between seasonal maximum and minimum elevations. The saturated thickness ranges from less than 2 feet to more than 6 feet during the year.

The upper sand aquifer is recharged by surface infiltration of precipitation and discharges to the unit below and to the east into the Snohomish River. A timber and sheet pile bulkhead along the river shoreline restricts discharge to the river. The bulkhead acts as a slightly permeable barrier to ground water flow.

**Upper Silt Aquitard.** The upper silt hydrostratigraphic unit underlies the upper sand aquifer and is composed of soft to stiff low plasticity to nonplastic silt. No monitoring wells were installed in the unit. Soil samples and vertical permeability measurements indicate that the unit impedes ground water flow. The upper silt aquitard was fully saturated during drilling. The unit is recharged by the upper sand aquifer, and discharges ground water downward into the lower sand aquifer and to the east into the Snohomish River.

**Lower Sand Aquifer.** The lower sand hydrostratigraphic unit is a saturated medium to coarse sand with scattered lenses of silt and gravel. The aquifer is a partially confined aquifer because it is bounded above and below by beds of distinctly lower permeability. The Snohomish River tidally influences the aquifer. The tidal influence decreases with distance away from the river.

The Snohomish River cuts through the aquifer and the aquifer both discharges to the river and is recharged by the river depending on the stage of the tidal cycle.

**Tidal Influence.** The Snohomish River is a tidally influenced river at the site. The river changes elevation with the stage of the tides. The upper sand aquifer shows minimal fluctuation with the tidal cycle. The Lower Sand aquifer shows direct connection to the Snohomish River. Tidal changes in the river translate into tidal changes in the aquifer of 4 to 6 feet. Typically there is a time lag between the river stage and the change in the Lower Sand Aquifer. The time lags ranged from 40 minutes to 117 minutes increasing with distance to the river.

### **3.1.4 Site Hydrogeology – Aquifer Parameters.**

**Hydraulic Conductivity and Gradients.** Three methods were used to determine hydraulic conductivity of the upper sand, upper silt, and lower sand units. The horizontal conductivity (K) of the upper sand was estimated using short-term in situ, rising head tests and an aquifer pumping test. The vertical K of the upper silt was measured by conducting laboratory permeameter tests on undisturbed core samples. The horizontal K of the lower sand unit was measured using short-term slug tests. In general the gradient and flow of water in the upper and lower aquifers is toward the Snohomish River.

**Upper Sand Aquifer.** The upper sand aquifer was slug tested in 13 different wells. The hydraulic conductivity estimated from these tests ranged from 0.001 to 0.031 cm/sec, averaging 0.007 cm/sec.

An aquifer pumping test was conducted in the area surrounding the "blow pit" area. The estimated horizontal hydraulic conductivity from this test ranged from 0.03 to 0.08 cm/sec, averaging 0.054 cm/sec, using time drawdown and drawdown recovery calculations. No vertical hydraulic conductivity measurements were conducted on the upper sand aquifer.

The horizontal gradient in the upper sand aquifer was estimated using July 1992 water table maps. The gradient appeared uniform from July to December 1992. The average horizontal gradient for this time period is 0.0037 ft/ft toward the Snohomish River. The gradient ranged from 0.0034 to 0.0039 ft/ft.

The estimated average horizontal linear velocity values for both the upper and lower sand aquifers range from 0.56 to 2.7 feet/day and average 1.8 feet/day. Differences in grain size and porosity in both units cause the variation in the velocity.

**Upper Silt Aquitard.** The vertical hydraulic conductivity of the upper silt was determined from three silt samples. The average vertical hydraulic conductivity of the upper silt aquitard is  $2.2 \times 10^{-7}$  cm/sec. Higher permeability lenses of sand and silty sand exist within the upper silt aquitard and may provide conduits for ground water flow.

**Lower Sand Aquifer.** The average horizontal hydraulic conductivity of the lower sand unit is estimated from slug test results at 0.05 with a range of 0.006 to 0.09 cm/sec. These are typical sand aquifer values.

The Snohomish River influences the lower sand aquifer horizontal gradient. The gradient for high and low tides are 0.0033 ft/ft to the west and 0.0032 ft/ft to the east respectively. Velocity in the unit also varies with tidal stage and ranges from 0.2 to 2.8 feet/day at high and low tide. The average linear velocity in the unit is 0.2 feet/day toward the Snohomish River.

### **3.2 SITE CHARACTERIZATION - GEOCHEMICAL SOIL AND GROUND WATER INVESTIGATIONS.**

**3.2.1 Data Sources.** The soil, surface and ground water data used for the evaluation of the nature and extent of the contamination on the Weyerhaeuser -Mill E/ Koppers Site were derived from field investigations conducted between July 15 and December 30, 1992. Additional soil investigations were performed in August 1993 to more closely define the limits of contamination. Ground water monitoring was conducted on a quarterly basis from August 1992 through August 1993, and is now being conducted on a semiannual basis.

**3.2.2 Soil.** Soil samples were collected at the surface in the grade fill and mixed fill units. Subsurface samples were collected at the base of these two fill units, in both the unsaturated and

saturated zones of the upper sand unit, and at the top of the upper silt unit. Soil samples were analyzed for metals (arsenic, chromium, copper, lead mercury), PCBs, TPH, VOCs, SVOCs, and dioxins/furans.

PCBs were detected in soil at two locations, at a maximum concentration of 0.041 mg/kg. Based on these limited detections, PCBs are not discussed further in this report and are not considered a contaminant of concern.

**Grade Fill and Mixed Fill.** Strong creosote-like odors were noted in selected soil borings throughout the Site. Non-aqueous phase liquid (NAPL) was observed in the mixed fill at one soil boring (SB-18) from 6 inches to 3.5 feet below ground surface. SB-18 is located near the wood treating building. Soil samples were analyzed for metals, TPH, SVOCs, and VOCs.

Arsenic, chromium, copper, lead, and mercury were analyzed for in the grade fill and mixed fill units. Copper (20/20 samples - 15.3 mg/kg to 79.2 mg/kg) does not exceed the MTCA Method B or Method C regulatory limits in the unit. Lead (20/20 samples - 7.8 mg/kg to 103 mg/kg) and mercury (3/20 samples - 0.08 mg/kg to 0.13 mg/kg) do not exceed the MTCA Method A regulatory limits in the unit. Arsenic (31/31 samples - 6.8 mg/kg to 187 mg/kg) and chromium (20/20 samples - 15.5 mg/kg to 243 mg/kg) samples do not exceed the MTCA Method A Industrial limit.

The highest concentrations of total petroleum hydrocarbons are found primarily at the base of the grade and mixed fill unit in the vicinity of the former Mill E and east of the former wood treatment building. Values range from the detection limit (1.0 mg/kg) to 7,900 mg/kg.

Twenty-two of the sixty-four semivolatile organic (SVOCs) compounds analyzed were detected in the fill unit samples. Wood preservative chemicals from pentachlorophenol and creosote were found in the fill unit. Pentachlorophenol was detected in 17 of 25 samples, and carcinogenic polycyclic aromatic hydrocarbons (CPAHs) were detected in 19 out of 25 samples. The SVOCs are found primarily along the old railroad lines emanating from the wood treatment building, and in the vicinity of the blow pit area.

**Location and Range of Soil  
Contaminants of Concern - Fill Unit**

Contaminant of Concern	Location of Contamination	Range of Concentrations (mg/kg)
Arsenic	Rail lines, wood treatment building	6.8 - 187
Chromium	Rail lines, wood treatment building	15.6 - 243
TPH	Wood treatment building	4 - 14,700
CPAHs	Rail lines, wood treatment building	0.68 - 380
PCP	Rail lines, wood treatment building	0.055 - 110

**Upper Sand Unit.** Strong hydrocarbon-like odors were found in many of the bore holes and test pits near the wood treatment building. Strong creosote-like odors, iridescent sheens, and dark

brown staining were noted in unsaturated soil and at the water table at thirteen different test pits or bore holes. The observations are interpreted to indicate locations of light-non-aqueous phase liquid (LNAPL). Where strong hydrocarbon odors, iridescent sheens, and dark brown staining was noted without the presence of LNAPL in the unsaturated zone or at the water table it was interpreted that dense-non-aqueous phase liquid (DNAPL) was present.

LNAPL was measured and sampled on May 18, 1993 at three monitoring wells: TW-1 (1.57 feet of dark brown product with a creosote odor), P-1 (0.34 feet, similar to TW-1), and HC-12 (0.14 feet of faint yellow product with a petroleum odor). LNAPL at HC-12 contained approximately 55 percent TPH-diesel and 12 percent TPH other. LNAPL at P-1 contained approximately 55 percent diesel, 16 percent non-carcinogenic PAHs, 0.79 percent PCP, 2,500 ppm CPAHs, and 170 mg/L gasoline. LNAPL at TW-1 contained approximately 80 percent TPH-diesel, 20 percent non-carcinogenic PAHs and 1 percent PCP.

Weyerhaeuser conducted a three-month-long trial to recover LNAPL and DNAPL from all wells (9) where product had been detected or suspected during previous monitoring events. No product was ever measured in four suspected wells. About 85% (2.3 gallons) of product was recovered from well TW-1 during the first event. A total of 0.5 gallons was withdrawn during the following five recovery events. Only well P-2 produced 24 ounces, and the remaining wells produced less than 10 ounces each. The trial product recovery program indicated that there is insufficient product present on-Site to warrant the use of active (pumped) product recovery system.

Metals were analyzed in the upper sand unit. Copper, lead and mercury concentrations are comparable to average regional values. Arsenic and chromium are not comparable to regional average values. Arsenic concentrations in the upper sand unit are higher than the average arsenic concentrations found in north Everett. The maximum concentrations of arsenic appear in the blow pit area, next to the narrow gauge railroad lines and near the wood treatment building. Arsenic and chromium were detected in all samples and concentrations range from 4.0 mg/kg to 459 mg/kg As and from 18.2 mg/kg to 906 mg/kg Cr.

Total petroleum hydrocarbons (TPH) are found primarily at the former blow pit area, around the wood treatment building, around Mill E, and to a lesser extent along the former narrow gauge rail lines. The concentrations of TPH gasoline and diesel are similar to those concentrations found in the upper fill units. However, the concentrations of the lighter TPH compounds in the upper sand around the blow pit are two to three orders of magnitude higher than those in the fill unit. The concentrations of the heavier TPH compounds in the upper sand unit at the treatment building area greater than those in the fill unit. Concentrations of heavier TPH compounds in the upper sand unit elsewhere at the site are significantly lower than those in the fill unit. TPH gasoline ranges from 0.40 mg/kg to 11,000 mg/kg, TPH diesel ranges from 4.0 mg/kg to 3,800 mg/kg, and TPH oil ranges from 3.0 mg/kg to 20,000 mg/kg in the upper sand unit.

Volatile organic compounds are found in the upper sand unit at approximately the same levels as the upper fill unit. Benzene, ethylbenzene, toluene, xylene (BTEX) compounds are found in the

unit along with styrene. The levels of BTEX range from 0.006 mg/kg to 1.5 mg/kg for benzene, range from 0.009 mg/kg to 64.0 mg/kg for ethylbenzene, range from 0.004 mg/kg to 24 mg/kg for toluene, and range from 0.004 mg/kg to 14.8 mg/kg for total xylenes.

Semivolatile organic compounds were found in 31 of 53 samples collected in the upper sand unit. Pentachlorophenol was detected in 25 of 53 (0.042 mg/kg to 410 mg/kg) samples and CPAHs were detected in 31 of 53 (0.04 mg/kg to 980 mg/kg) samples. SVOCs in the upper sand unit are found primarily in the former blow pit area, along the former rail lines and around or near the wood treatment building. The highest concentrations of SVOCs were found in the blow pit area. Elevated concentrations of SVOCs in ground water are spatially correlated to elevated SVOCs in soils.

### Location and Range of Soil Contaminants of Concern - Upper Sand Unit

Contaminant of Concern	Location of Contamination	Range of Concentrations (mg/kg)
Arsenic	Blow pit, rail lines, wood treatment building	4.0 - 459
Chromium	Blow pit, wood treatment building, rail lines	18.2 - 906
TPH	Blow pit, wood treatment building, rail lines, former Mill E	0.85 - 20,000
CPAHs	Blow pit, rail lines, wood treatment building	0.038 - 219
PCP	Blow pit, rail lines, wood treatment building	0.042 - 410

**Upper Silt Unit.** The upper silt unit is found throughout the Site. Strong petroleum odors were noted at the top of the upper silt unit in five soil borings. Strong creosote-like odors and iridescent staining were noted at the tip of the upper silt unit at those borings where DNAPL was observed at the base of the upper sand. Arsenic analysis was completed from eight borings in the upper portion of the Upper Silt Unit. Arsenic in soil ranged from 18.2 to 1,250 mg/kg and appeared to be randomly distributed over the unit.

**3.2.3 Ground Water.** Ground water samples were collected from wells in the upper sand and lower sand aquifers. Ground water samples were collected and analyzed for total and dissolved metals (arsenic, chromium, copper, lead, and mercury), TPH, VOCs, SVOCs.

**Upper Sand Aquifer.** Total and dissolved metal concentrations were compared from the upper sand aquifer. Concentrations of total metals are nearly identical to concentrations of dissolved metals in the first two quarterly sampling events. Total metals concentrations have been used to represent ground water quality.

Arsenic and chromium are found in the ground water at the Site. Elevated arsenic concentrations generally are spatially correlated with elevated soils arsenic concentrations. In the upper sand aquifer, elevated chromium concentrations coincide with elevated arsenic concentrations. Concentrations of arsenic (0.0043 mg/L to 17 mg/L), lead (0.0007 mg/L to 0.047 mg/L), and chromium (0.0014 mg/L to 0.461 mg/L) are found above the MTCA Method A ground water



standards. Mercury and copper are found randomly throughout the site and do not exceed MTCA ground water standards.

Total petroleum hydrocarbons (TPH) are found in the upper sand aquifer primarily around the blow pit area and around the treatment building. In general, elevated TPH concentrations are spatially correlated with elevated soil concentrations. The TPH concentrations are seasonally variable and generally increase during the rainy season (November through May).

A summary of the volatile organic compounds in the upper sand is given below.

#### BTEX in Shallow Aquifer

Compound	Number Detected	Number Analyzed	Minimum (mg/kg)	Maximum (mg/Kg)	Average (mg/kg)	MTCA A Standard (mg/kg)
Benzene	55	93	0.0010	3.20	0.310	0.005
Toluene	55	93	0.0008	7.20	0.706	0.040
Ethylbenzene	53	93	0.0020	0.560	0.105	0.030
Xylenes	58	93	0.007	3.90	0.600	0.020

In general the VOCs in the upper sand aquifer are found near the former wood treatment building.

Thirty of the sixty-four semivolatile organic compounds analyzed were detected in all ninety-two samples analyzed. PCP was detected in 39 samples, and CPAH's were detected in 12 samples. Seasonal fluctuation of SVOC compounds, except for pentachlorophenol (PCP), are similar to those of TPH, where a rise in the water table correlates with a rise in concentrations. SVOCs are found primarily downgradient of the blow pit area, east of the treatment building, and southeast of former Mill E. Elevated concentrations of SVOCs in ground water are spatially correlated to elevated soil concentrations of SVOCs. PCP in the upper sand aquifer is found primarily in the blow pit area, near the treatment building, and along the former rail line but traces of the substance are found in water throughout the Site.

**Lower Sand Aquifer.** Total and dissolved metals concentrations are nearly identical in two sampling events. TSS values for the aquifer are also low, averaging 14 mg/L for both events. Based on these results, total metals concentrations have been used in the FS to represent ground water quality.

The average arsenic concentration (0.163 mg/L) in the lower sand aquifer is about two orders of magnitude greater than the background concentration (0.0012 mg/L). Throughout the Site arsenic concentrations ranged from 0.0011 mg/L to 1.54 mg/L, with the maximum concentrations of arsenic found near and downgradient of the blow pit area. The arsenic concentrations exceed

the MTCA Method A and Method C cleanup standards. Chromium concentrations are about two times the average background concentrations and the average chromium concentration in the lower sand aquifer are four times lower than those in the upper sand aquifer. Chromium concentrations ranged from 0.0024 mg/L to 0.034 mg/L, and are below the MICA Method A cleanup standards. The average copper and lead concentrations are near laboratory method detection limits (Cu-0.0026 mg/L, Pb-0.0013 mg/L). The copper concentrations are approximately three times lower than the upper sand aquifer. Lead was detected in only one sample. Mercury was not detected in the sampling.

TPH concentrations are found primarily beneath the blow pit area. TPH-diesel was the primary petroleum component detected. Mean TPH concentrations in the lower sand aquifer are two to ten times lower than those in the upper sand aquifer.

Only four petroleum related (BTEX) volatile organic compounds were detected in the lower aquifer. The VOCs exhibit no seasonal trends. The mean concentrations of VOCs are about 50% lower than the mean VOC concentrations in the upper aquifer. In general, VOCs are found primarily in association with TPH downgradient of the blow pit.

Thirteen of sixty-four SVOC compounds were detected in forty-two lower sand samples. PCP was detected in seven samples from two wells. CPAH's were not detected in any wells installed in the lower sand aquifer. SVOC concentrations were on average five to ten times lower than average SVOC concentrations found in the upper aquifer. The SVOCs were found primarily near and downgradient of the blow pit area.

## **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 straightforward 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 cleanups 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 cleanup levels are set using a site risk assessment that 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 lifetime 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 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.

The Weyerhaeuser Mill E/Koppers Site is considered an industrial site where MTCA Method C and Method A Industrial soil standards can be used along with MTCA Method C and Method A ground water standards. The Site will be deed restricted after the completion of the cleanup action. The Site is considered an Industrial Site because it is zoned for heavy industry currently and for the foreseeable future. The individual cleanup standards and levels set for each contaminant of concern are discussed below. The arsenic cleanup standards for ground water and soil are only applicable within the capped area surrounded by the vertical containment structure:

## 4.2 GROUND WATER CLEANUP STANDARDS

The ground water cleanup levels at the Weyerhaeuser Mill E/Koppers Site were set according to WAC 173-340-720, Ground Water Cleanup Standards. TPH and PCP were found above MTCA Method C standards in approved monitoring wells using older ground water sampling techniques. Arsenic concentrations are found above the MTCA Method A and Method C ground water standards. Ground water sampling will be conducted using appropriate low-flow sampling technology. One ground water monitoring well will be used to establish contaminant levels within the containment system. The ground water point of compliance for the Site is the property boundary adjacent to the Snohomish River.

### MTCA Ground Water Cleanup Levels

Parameter	Cleanup Level	Protection Basis
TPH	10 mg/l	MTCA METHOD C
PCP	7.29 ug/l	MTCA METHOD C
As*	5.0 ug/L	MTCA METHOD A

\* Cleanup standard only within the area of the containment wall

## 4.3 MTCA SOIL CLEANUP STANDARDS

**4.3.1 Soil cleanup levels.** The MTCA Method C and Method A Industrial cleanup standard for soils (WAC 173-340-745) will be used for the following contaminants found on the Site, except for TPH which has both a MTCA Method A and Method B cleanup standard. For petroleum contaminated soils Method B will be implemented. At this site Method B is based on soil leach studies to ensure the protection of ground water. Individual soil cleanup levels for the Site are given below.

### MTCA Soil Cleanup Levels

Parameter	Cleanup Level	Protection Basis
PCP *	280 mg/kg	MTCA Method C Industrial
CPAH's **	20 mg/kg	MTCA Method A Industrial
TPH ***	2,500 mg/kg	MTCA Method B
Chromium	500 mg/kg	MTCA Method A Industrial
Arsenic ****	200 mg/kg	MTCA Method A Industrial

\* A soil cleanup level of 280 mg/kg was derived from soil leach study to ensure protection of ground water.

\*\* Carcinogenic PAH's = (WAC 173-340-200) benzo(a)anthracene, benzo(b)fluranthene, benzo(a)pyrene, chrysene, dibenzo(a,h)anthracene, and indeno(1,2,3-cd)pyrene.

\*\*\* A soil cleanup action level of 2,500 mg/kg TPH will be implemented based on soil leach studies to ensure protection of ground water.

\*\*\*\* The arsenic cleanup standard is applicable only to soils found within the vertical containment wall area.

**4.3.2 Site-Specific Leaching Study Derived Cleanup and Cleanup Action Levels.** The Site-specific cleanup action level for hydrocarbon contaminated soils (TPH) at the Site will be 2,500 mg/kg. This cleanup action level is based on analytical results and calculations from sequential batch adsorption and column leach tests performed on samples from the Everett East Site. The results indicate that the standards are protective of both East Site and the Mill E/Koppers Site ground water. The Site-specific PCP soil cleanup level will be 280 mg/kg. This Site-specific cleanup level is based on soil leach test and the derived equation values, which were performed on samples from the Everett East Site. The results indicate that the standards are protective of the Mill E/Koppers Sites ground water.

If needed, confirmation soil sampling for TPH and PCP compounds will be analyzed using a modified TPH-DX extended method and GS/MS. The modified TPH-DX analysis will use a silica gel/acid cleanup to attempt to eliminate organic interference. If needed, the soil cleanup levels will be used to determine the excavation limits. As needed, a Sampling and Analysis Plan (SAP) will be developed and will describe the analytical parameters and the procedures to conduct confirmational sampling.

The cleanup boundary for the blow pit excavation, will be the excavation of soil to either the soil cleanup levels, the surface of the Water Table Zone or a total of 1,200 cubic yards of contaminated material. Soils left on Site above the specified industrial soil cleanup levels, in accordance with WAC 173-340-440, will be noted in the Restrictive Covenant (Exhibit G of the Consent Decree). The point of compliance for groundwater is the Site boundary located at the Snohomish River. The industrial cleanup standard requires that the Site be deed restricted.

## 5.0 Summary of Alternative Cleanup Actions.

### 5.1 Introduction – Summary of Cleanup Alternatives.

This section of the CAP summarizes the cleanup actions considered by Weyerhaeuser Company in the Feasibility Study and work plan for the Site. The Feasibility Study outlines ten different cleanup scenarios of which six scenarios were developed and evaluated in detail in the Feasibility Study. As part of the remedial investigation, a baseline risk assessment was performed to determine and evaluate the potential risks to human health and the environment which exist on the Site. The risk assessment identified two primary exposure pathways that may present unacceptable risks at the Site. These are direct contact and ingestion of contaminated soil, and discharge of contaminated water to surface water (i.e., the Snohomish River). These two pathways were used to evaluate the different cleanup actions.

The following cleanup actions were examined in the Feasibility Study. Six of the alternatives were retained and examined in detail. The remedial actions initially examined are:

Cleanup Action Alternatives	
No. 1 No Action	Retained
<b>Containment Actions</b>	
No. 2 Site-wide cap, product recovery, ground water monitoring.	Retained
No. 3 Site-wide cap, product recovery, vertical containment of hot spot soil, ground water monitoring	Retained
No. 4 Excavation and consolidation of contaminated soil, cap, product recovery, vertical containment, ground water monitoring.	Retained
No. 5 Site-wide cap, product recovery, ground water recovery, and treatment.	Not Retained
<b>Hot-Spot Removal/Source Control Actions</b>	
No. 6 Hot-spot removal, stabilize excavated soil, site-wide cap, ground water monitoring.	Retained
<b>Total Cleanup Actions</b>	
No. 7 Excavate and stabilize all impacted soil, ground water monitoring	Retained
No. 8 Excavate and treat soil for off site disposal and ground water monitoring.	Not Retained

No. 9 Excavate and stabilize all impacted soil, ground water recovery and treatment.	Not Retained
<b>In Situ Actions</b>	
No. 10 In situ treatment (soil washing, stabilization), product recovery, ground water monitoring.	Not Retained

Each of these ten cleanup alternatives was compared and screened using three criteria: protectiveness, implementability, and cost effectiveness. The six retained alternative cleanup actions are briefly described below.

**Alternative 1 – No Action.** No cleanup action of any kind would occur on the Site. Institutional controls and ground water monitoring would be included because of MTCA requirements. There would be no reduction in any of the risk to human health or the environment beyond that which is already provided at the Site.

**Alternative 2 – Site-wide Cap, Product Recovery, Ground Water Monitoring.** This cleanup action would have three main components: capping areas where fill and unsaturated sand exceed soil action levels, passive recovery of DNAPL in the blow pit area, and ground water monitoring.

**Alternative 3 – Site-wide Cap, Product Recovery, Vertical Containment of Hot Spot Soil, Ground Water Monitoring.** This alternative would include all the actions in Alternative 2 (site-wide cap, product recovery, and ground water monitoring) and would add vertical containment around the saturated hot spot soil in the blow pit area and wood treatment building. The vertical containment would consist of sheet piling with sealable joints. The sheet piling would be installed beneath the 7.5-acre low-permeability asphalt cap.

**Alternative 4 – Soil Consolidation, Cap, Product Recovery, Vertical Containment, Ground water Monitoring.** This alternative would include all of the elements of Alternative 3, but would excavate soils exceeding actions levels located outside of the vertical containment and consolidate them inside of the sheet pile containment area. The cap would only extend over the containment area. The cap would consist of low-permeability asphalt. Passive recovery of DNAPL would occur in and around the blow pit area.

**Alternative 6 – Hot Spot Removal, Stabilize Excavated Soil, Site-wide Cap, Ground water Monitoring.** This alternative would involve excavation and treatment on site by solidification and stabilization of hot spot soils. Excavation of the soils would require the use of sheet piles that would remain in place. Approximately 20,350 cubic yards of soil would be removed, treated, and then backfilled in this alternative. After excavation, treatment, and backfilling, the Site would be covered with an approximately 7.6 acre low-permeability cap.

**Alternative 7 – Excavate and Stabilize All Impacted Soil, Ground water Monitoring.** This alternative would be similar to Alternative 6 except that all impacted soil on the Site would be

treated. The total volume of soil that would require excavation and stabilization would be approximately 44,000 cubic yards.

## **5.2 Detailed Analysis of Alternatives**

This section of the CAP summarizes the cleanup actions submitted by Weyerhaeuser in the Feasibility Study and subsequent submittals. The Feasibility Study outlines six alternatives that were finally considered for the cleanup. Each of the alternatives is examined in detail below.

### **5.2.1 Alternative 1 – No Action**

No cleanup action of any kind would be taken in this alternative. Institutional controls would be included in the no action alternative. The results of ground water monitoring would be summarized in annual reports. Monitoring wells would be maintained as necessary to ensure their long-term usability. The total cost for this alternative is approximately \$ 570,000.

This alternative does little to reduce risks to human health or the environment beyond the existing access controls and fencing. All contaminants would be left in place and no exposure pathways would be eliminated. Site restoration would never be achieved.

### **5.2.2 Alternative 2 – Site-wide Cap, Product Recovery, Ground water Monitoring.**

This action would have three main components: capping areas where fill and unsaturated sand exceed soil action levels, passive recovery of DNAPL in the blow pit area, and ground water monitoring. Leveling and removal of structures such as former building foundations and tank pads would prepare the Site surface. A modified asphalt cap of approximately 7.5 acres in size would be placed over the contaminated area. The cap would be constructed of a three-layer asphalt surface consisting of a 4-inch base course, a low-permeability geomembrane such as Petromat, and a final 2-inch surface course.

Passive product recovery would consist of periodically bailing DNAPL from several newly installed recovery wells. Well locations would be based on the results of a limited soil investigation in the blow pit area. Ground water monitoring would be conducted from 10 monitoring wells in the upper and lower aquifer.

Restrictive covenants would be placed on the Site deed to restrict certain activities and development of areas covered by the cap. Use of Site ground water would be restricted. The estimated cost of the alternative is \$1,920,000.

This alternative, because of the cap, would eliminate the direct exposure and ingestion pathways and would substantially reduce the risks the Site poses to human health. The alternative would not actively address ground water discharges; therefore, it would not provide for a significant reduction in environmental risk.

### **5.2.3 Alternative 3 – Site-wide Cap, Product Recovery, Vertical Containment of Hot Spot Soil, Ground water Monitoring.**

This alternative would retain all of the actions of Alternative 2 (site-wide cap, product recovery, ground water monitoring) and would add vertical containment around saturated hot spot soil. With some minor modifications noted below, the capping and product recovery components of this alternative would be the same as described in Alternative 2.

In this alternative the Site-wide cap would be extended out and over the containment wall to minimize infiltration of rainwater. Vertical containment would consist of a low-permeability barrier wall such as a sheet piling with sealable joints. Approximately 1,700 feet of wall would be required. The average depth of the wall would be 10 feet. The containment wall would be keyed approximately 2 feet into the silt aquitard. The estimated cost of this alternative is \$2,460,000.

Alternative 3 would eliminate the direct exposure and ingestion pathways and therefore substantially reduce the potential risks to human health posed by the Site. The combination of the cap and product recovery would reduce downward migration of contaminants into the ground water and the river. Overall this alternative would provide for significant reductions in environmental risk over time.

### **5.2.4 Alternative 4 – Soil Consolidation, Cap, Product Recovery, Vertical Containment, Ground water Monitoring.**

This alternative would retain all of the elements of Alternative 3 (asphalt cap, vertical containment, product recovery, ground water monitoring) and add excavation and on-Site consolidation of soil exceeding cleanup levels located outside of the containment cell.

In this alternative approximately 13,800 cubic yards of unsaturated and 400 cubic yards of saturated contaminated soil would be excavated and consolidated inside of the vertical containment cell. Excavated fill would be screened to remove oversize material, resulting in an approximately 50 percent reduction in volume. The oversize would be used as back fill in the excavations. Excavations would be filled to grade level, with clean imported fill including the screened over size material. The maximum elevation of the capped area would be approximately two feet above existing ground surface. The estimated cost of implementing this alternative is \$2,660,000.

As with Alternative 3 this remediation would eliminate direct exposure and ingestion pathways, and therefore substantially reduce the potential human health risks posed by the Site. The combination of the cap, product recovery, and sheet piling would also significantly reduce environmental risk over time.



### **5.2.5 Alternative 6 – Hot Spot Removal, Stabilize Excavated Soil, Site-wide Cap, Ground water Monitoring.**

In this Alternative the hot spot soil near the blow pit area would be excavated and stabilized. Approximately 7,780 cubic yards of unsaturated hot spot soils and 12,450 cubic yards of saturated hot spot soils would be removed and treated. The unsaturated material would be removed, screened and treated. The oversize material would be removed and used as fill material. The total quantity of soil to be treated in this alternative is approximately 18,000 cubic yards.

In the implementation of Alternative 6 there exists a possibility of rupturing the lower sand confining silt layer which would allow the both the NAPL and DNAPL contaminants to pass into the lower sand aquifer. During the excavation, it would be very important not to disturb the silt aquitard beneath the upper sand. This silt layer would have to be stabilized by either grout injection or lowering the water table by pumping. A third alternative would be to excavate the contaminated soil without dewatering. Each of these options is either prohibitively expensive or not feasible when examined in detail. The second option of pumping and excavating using standard construction techniques involving sheet piling, dewatering, and excavation has been picked as a potential remediation option. The total estimated cost of this alternative is \$9,340,000.

This Alternative would eliminate the direct exposure and ingestion pathways. The alternative would substantially lower the risks to human health. Treating the saturated hot spot soil and leaving the sheet piling around the excavations would effectively immobilize the major source of ground water contamination and lower environmental risk over time.

### **5.2.6 Alternative 7 – Excavate and Stabilize All Impacted Soil, Ground water Monitoring.**

This alternative is similar to Alternative 6 in that impacted soil would be excavated, soil stabilized on site, then placed back into the excavation. Soil excavated would include all unsaturated and saturated fill and upper sand unit soil exceeding action levels. The problems associated with the heaving of the thin silt confining layer would also be a concern in this clean up alternative. The site would not be capped as in Alternative 6 since all the contaminated soil would be treated.

The total volume of soil requiring excavation is approximately 43,900 cubic yards. Screening the fill will remove approximately 7,450 cubic yards of oversized material. The total volume of soil being stabilized would be approximately 36,450 cubic yards. The total estimated cost of the remediation is \$13,620,000.

Alternative 7 eliminates the direct exposure and ingestion pathways because all soil exceeding action levels would be excavated and stabilized. Treating hot spot soil and leaving sheet piling around the excavations would effectively eliminate the major source of ground water contamination. The alternative would provide a significant reduction in environmental risk.

## **6.0 Selection of Cleanup Alternative**

### **6.1 Introduction.**

The cleanup strategy recommended by the Weyerhaeuser Company in the 1997 Feasibility Study is Alternative 4 (Soil Consolidation, Product Recovery, Vertical Containment, Ground water Monitoring). In 1997, at Ecology's direction, this alternative was modified to include elements of both feasibility study Alternative 3 and Alternative 4 along with soil removal to an approved dangerous waste landfill. The final proposed cleanup alternative includes hot spot soil removal along with an asphalt cap and vertical barrier wall instead of hot spot soil consolidation and product recovery. All of the alternatives assume that the Site will be used for industrial development for the foreseeable future.

This Site will use containment with some soil removal rather than permanent (total) removal or stabilization as a cleanup scenario. Weyerhaeuser conducted a substantial and disproportionate cost analysis to compare the benefit provided by permanent removal or stabilization alternatives and their effectiveness in reducing contaminants out of the site environment. Weyerhaeuser proposed, and Ecology agreed that the incremental degree of protection provided by treatment technologies when compared to the incremental increase in cost was not justified.

### **6.2 Selected Cleanup Action**

The proposed cleanup action for the Site consists of six major items listed below:

- An approximately 1,600 foot long vertical barrier wall installed around the portion of the site where nonaqueous-phase liquids (NPAL) or highly saturated soil contamination have been observed.
- Excavation and off-site disposal of up to 1,200 cubic yards of hot spot soil above the water table in the former blow pit area. All excavated soil will be managed as RCRA listed dangerous waste. The NAPL that collects on the water surface in the hot spot excavation will be collected and disposed of as RCRA dangerous waste. The area will be backfilled with clean imported soil.
- A low permeability asphalt cap installed to cover the vertical barrier wall containment area to minimize infiltration of precipitation inside the wall and prevent direct contact with contaminated soil.

- A soil cap placed over portions of the Site outside of the vertical barrier to prevent direct contact with contaminated soil.
- Institutional controls (soil and water) to control exposure of future site workers to contaminants, as well as to maintain the integrity of the barrier wall and cap.
- Long term monitoring and maintenance of the engineered cap.

### 6.3 Ground water Monitoring

Since contaminated soils and ground water will be contained on Site, an operation and maintenance plan will be implemented as part of the cleanup remedy. Weyerhaeuser has submitted to Ecology a performance and compliance monitoring plan (PCMP) for the cap and barrier wall. The PCMP will include the items listed in the table below.

Monitoring Activity	Description	Frequency	Criteria
Asphalt Cap Inspection	Inspect asphalt cap and related drainage features for the following: <ul style="list-style-type: none"> <li>• Cracked or damaged asphalt</li> <li>• Areas of uneven settlement or standing water</li> <li>• General condition of ditches</li> <li>• Debris free ditches</li> </ul>	<ul style="list-style-type: none"> <li>• Semi-annually for first two years, including at least once per year during a storm event</li> <li>• Annually for years three through 5</li> </ul>	<ul style="list-style-type: none"> <li>• If potential problems are identified, they will be repaired.</li> </ul>
Soil Cover Inspection	Inspect soil cover, to include: <ul style="list-style-type: none"> <li>• Excessive erosion or poorly vegetated areas</li> <li>• Excessive standing water</li> </ul>	<ul style="list-style-type: none"> <li>• Semi-annually for first two years</li> <li>• Annually for years three through 5</li> </ul>	<ul style="list-style-type: none"> <li>• If potential problems are identified, they will be repaired</li> </ul>

Water Level Monitoring	Measure water levels at three piezometers installed inside the barrier wall and in three piezometers installed outside wall	<ul style="list-style-type: none"> <li>• Quarterly for first year</li> <li>• Semi-annual for second year</li> <li>• Annually for years three through five</li> </ul>	<ul style="list-style-type: none"> <li>• If water levels inside barrier wall area stable or decrease, system is functioning normally.</li> <li>• If water levels increase, evaluate performance of cap and implement corrective actions. Increase frequency of water level monitoring</li> </ul>
Chemical Monitoring	Measure chemical constituents in ground water within the containment system	<ul style="list-style-type: none"> <li>• Semi-annually in year one</li> <li>• Annually in years three and five.</li> </ul>	<ul style="list-style-type: none"> <li>• Determine changes in levels of chemical constituents within barrier wall</li> </ul>

The Plan will be re-evaluated at the end of the first five-year period and potential changes will be discussed by Weyerhaeuser and Ecology. A summary of the field activities is given below.

The asphalt cap will be inspected by a registered professional engineer at each monitoring event for signs of cracking, settlement, or the presence of significant amounts of standing water. The drainage ditches will be inspected to evaluate their general condition and to ensure that they are free of debris that may inhibit the flow of stormwater. The soil cap will be inspected for erosion and poorly vegetated area, or excessive standing water. Observations will be reported to Weyerhaeuser and Ecology. Corrective action will result when the inspection reveals that a decrease in the integrity of the containment systems exists.

Ground water level monitoring will be conducted at each of the piezometers quarterly for the first year, semi-annually in the second year and annually for years 3 through 5. Elevations will be measured in the shortest time possible. The data will be used to determine contemporaneous ground water elevations and hydraulic gradients.

The ground water level elevation data will also be used to determine a water balance within the containment system and hydraulic gradients across the containment. If the data indicates significant water flow into or out of the containment, Weyerhaeuser will notify Ecology and determine the cause of the containment failure. Should steadily increasing water level elevations become apparent within the contained portion of the upper sand, Weyerhaeuser will propose a plan to correct the cause of the elevated water levels.

Weyerhaeuser will sample one piezometer within the containment system and analyze for TPH, PCP and Arsenic. The piezometer will be sampled semi-annually in year one, and annually in

years three and five. The data will be used to determine any chemical changes within the containment system.

After each monitoring event Weyerhaeuser will prepare and submit to Ecology a short report describing the fieldwork activities. The reports will include ground water elevations, field observations of the cap and an assessment of the performance and compliance of the remedial action. Annual reports summarizing the fieldwork activities will be submitted to Ecology.

#### **6.4 Schedule.**

The proposed clean up is scheduled to occur in the fall of 1998 or first quarter 1999. If approved, initial soil removal will begin in October of 1998. The two caps and barrier wall will be constructed on the site in the fall of 1998 or the spring of 1999. Final as-built construction diagrams, data, and a project completion report will be delivered to Ecology after the completion of the remedial activities in the summer of 1999. Ground water monitoring and cap performance monitoring will begin in the spring/summer of 1999 and continue as described in the PCMP.

**EXHIBIT D**

**WORK SCHEDULE**

**Weyerhaeuser Mill E/Koppers Site  
Everett, Washington**

**Exhibit D**

**Project Schedule  
Weyerhaeuser Mill E/Koppers Site**

Projects	Aug/ Sept 98	Sept/ Oct 98	Oct/ Nov 98	Nov/ Dec 98	Dec/ Jan 98	Mar 99	June 99	Sep 99	Dec 99	Dec 2003
Consent Decree & CAP										
Public Review Comment Period										
Bid Process										
Remediation										
Data Review Final Site Inspection										
Final Report										
Performance Monitoring										

**EXHIBIT E**

**PERFORMANCE AND COMPLIANCE  
MONITORING PLAN**

**Weyerhaeuser Mill E/Koppers Site  
Everett, Washington**



**PERFORMANCE AND COMPLIANCE  
MONITORING PLAN**

**FORMER MILL E/KOPPERS FACILITY**

**EVERETT, WASHINGTON**

Prepared for  
Weyerhaeuser Company  
October 8, 1998

Prepared by  
EMCON  
18912 North Creek Parkway, Suite 200  
Bothell, Washington 98011-8016

Project 40141-037.117(3)

# CONTENTS

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<b>LIST OF TABLES</b>	<b>iii</b>
<b>1 INTRODUCTION</b>	<b>1</b>
1.1 Purpose	1
1.2 Background	1
<b>2 PERFORMANCE AND COMPLIANCE MONITORING</b>	<b>1</b>
2.1 Cleanup Action Performance	1
2.2 Performance Measurement	1
2.3 Performance Monitoring	3
2.4 Reporting	4
<b>LIMITATIONS</b>	
<b>REFERENCES</b>	
<b>TABLES</b>	

## **TABLES**

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**Following text**

### **Tables**

- 2-1 Rationale for Monitoring Approach
- 2-2 Performance Monitoring Plan

# 1 INTRODUCTION

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## 1.1 Purpose

This document presents the Performance and Compliance Monitoring Plan (PCMP) for the Weyerhaeuser Company at the Former Mill E/Koppers Facility located in Everett, Washington (see Exhibit B). The PCMP is consistent with the compliance monitoring requirements of WAC 173-340-410. The PCMP addresses the monitoring required to evaluate the performance of the cleanup action with respect to the cleanup action objectives and applicable MTCA performance and compliance standards.

This PCMP is applicable only to the Former Mill E/Koppers Facility, hereinafter referred to as the "Site." The performance and compliance monitoring activities presented in this document have been developed from the findings of the remedial investigation (RI; EMCON, 1994) the remedial alternative evaluation of the Feasibility Study (FS; EMCON, 1997), the objectives of the remedial design as described in the Engineering Design Report (EDR; EMCON, 1998), and cleanup actions required by Ecology as detailed in the Consent Decree between Ecology and Weyerhaeuser.

The PCMP provides detailed descriptions of performance and compliance monitoring for the Site, including the rationale for the number of monitoring locations, monitoring methods, and site inspection details.

## 1.2 Background

### 1.2.1 Site Details

Details of site conditions and investigation results (hydrogeology, nature and extent of contamination), and the remedial alternative evaluation and selection are presented in the RI and FS, respectively.

## 1.2.2 Remediation Plan Overview

This section provides a brief overview of the final cleanup action for the site. Ecology required, and Weyerhaeuser agreed to focus on, a cleanup action alternative similar to FS Alternative 3 (cap plus vertical barrier), which includes the following major components:

- An approximately 1,600-foot-long vertical barrier wall installed around the portion of the site where nonaqueous-phase liquids (NAPL) or highly saturated soil contamination have been observed (see Exhibit B).
- Excavation and off-site disposal of up to 1,200 cubic yards (cy) of hot spot soil above the water table in the former blow pit area (see Exhibit B). All soil taken offsite will likely be managed as a F032, F034, or F035 listed dangerous waste<sup>1</sup>. The NAPL that collects on the water surface in the bottom of the excavation will be collected using adsorbents, or other measures as appropriate, and disposed as dangerous waste. Once the excavation is complete, it will be backfilled using imported soil.
- A low-permeability asphalt cap installed to cover the vertical barrier containment area to minimize infiltration of precipitation inside the vertical barrier wall and prevent direct contact with impacted soils (see Exhibit B).
- A soil cap placed over portions of the site outside the vertical barrier to prevent direct contact with impacted soil (see Exhibit B).
- Institutional controls (e.g., deed restrictions) to control exposure of future site workers to contaminants, as well as to maintain the integrity of the barrier wall and cap.
- Long-term monitoring and maintenance of the above items.

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<sup>1</sup> For purposes of this report, the term "dangerous waste" will be used to include Washington state dangerous wastes as defined pursuant to WAC 173-303 and federal hazardous wastes as defined by 40 CFR 261.

## **2 PERFORMANCE AND COMPLIANCE MONITORING**

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### **2.1 Cleanup Action Performance**

The asphalt cap and soil cover are designed to prevent human contact with the indicator hazardous substances remaining in soil, thereby minimizing potential risks to human health. The asphalt cap, in conjunction with the vertical barrier wall, will isolate the major sources of IHSs in the upper sand aquifer, thereby minimizing further contaminant migration to the Snohomish River and potential environmental receptors.

Once the cleanup action has been constructed correctly, and as long as routine maintenance is performed, the cleanup action will perform by design; i.e., the cap will minimize infiltration and the barrier wall will isolate the major contaminant sources. The parameters that will be measured to confirm the performance are described below.

### **2.2 Performance Measurement**

Table 2-1 summarizes the performance objectives, performance metric for each objective, and the monitoring approach that will be used for each performance metric.

#### **2.2.1 Asphalt Cap**

The installation of the asphalt cap will significantly reduce or eliminate the potential for direct contact with underlying soil, essentially eliminating any potential risks to human health via this exposure pathway. As long as the asphalt cap is in place and maintained, it will achieve the performance objective. Periodic inspection of the asphalt cap will be used to document the physical integrity of the cap.

The asphalt cap, which will be constructed with a minimum of a 0.5 percent slope, will also redirect surface water outside of the vertical barrier wall and into a storm water collection system. This will minimize the infiltration of precipitation into the containment area, resulting in a significant reduction in the flux of contaminants from the unsaturated soil into the upper sand aquifer. In addition to inspecting the cap to evaluate its physical integrity, water level measurements inside and outside the barrier wall (see

Section 2.2.3 below) will provide the required data to evaluate whether the asphalt cap is acting as an effective barrier to infiltration.

### **2.2.2 Soil Cover**

The installation of the soil cover will significantly reduce the potential for direct contact with underlying soil. Periodic inspection of the soil will be used to document the physical integrity of the cover.

### **2.2.3 Barrier Wall**

The installation of the vertical barrier wall will hydraulically isolate the major sources of contamination in the upper sand aquifer, thereby diverting groundwater flow in the shallow aquifer around the contained area and minimizing migration of contaminants out of the contained area. Groundwater hydraulic gradients in the upper sand aquifer downgradient of the containment area (i.e., between the wall and the bulkhead) are expected to become essentially flat. This will significantly decrease the contaminant flux from the upper sand aquifer towards the Snohomish River. It is important to note that contaminant concentrations in the groundwater between the barrier wall and bulkhead may not change very fast because of the very flat gradient and reduced flushing from groundwater flow and infiltration of precipitation. The flux to the river, which is the primary measure of performance, will be reduced due to the flat hydraulic gradients.

The water elevations within the contained portion of the upper sand aquifer are expected to decrease to a new elevation in equilibrium with the average hydraulic head in the lower sand aquifer. This will significantly decrease the contaminant flux from the upper sand aquifer down into the lower sand aquifer.

The lower sand aquifer is hydraulically connected to the Snohomish River. The contribution of the upper sand aquifer to the water balance of the deep aquifer is insignificant in comparison to the effect of the river on the deep aquifer. No significant change in groundwater elevations or flow direction, therefore, are expected in the lower sand aquifer downgradient of the containment system.

For all of the performance objectives described above for the barrier wall, the primary measure of performance will be water levels inside and outside the barrier wall. If water levels inside the wall decline and reach a new equilibrium at approximately the average elevation of the hydraulic head in the lower aquifer, it can be presumed that the containment system (barrier wall and asphalt cap) are functioning as designed. If water levels inside the wall increase, this would indicate that water is leaking through the cap and collecting inside the wall and would trigger an evaluation of the potential sources of this leakage and corrective action, as necessary.

In addition to water level measurement, groundwater within the barrier wall will be monitored for TPH, pentachlorophenol, and arsenic to determine changes in concentration over time.

## **2.3 Performance Monitoring**

The PCMP includes periodic inspection and evaluation of the integrity of the asphalt cap, periodic groundwater elevation measurements in piezometers to monitor the effectiveness of the hydraulic control of the containment system, and water quality monitoring within the barrier wall. A summary of the field activities of the PCMP is presented in Table 2-2.

### **2.3.1 Asphalt Cap and Soil Cover Inspection**

The asphalt cap will be inspected by a registered professional engineer at each monitoring event for signs of cracking, settlement, or the presence of significant amounts of standing water. The drainage ditches will also be inspected to evaluate their general condition and to ensure they are free of debris or other material that may inhibit flow of stormwater runoff. The soil cap will be inspected for excessive erosion, poorly vegetated areas, or excessive standing water.

If the inspection of the asphalt and soil caps indicate a decrease in the integrity of these containment systems, it will be immediately brought to the attention of Weyerhaeuser, and corrective action implemented consistent with the operations and maintenance plan that will be developed by the project engineer after construction of the cleanup action.

The asphalt cap and soil cover will be inspected semi-annually in the first two years, including at least once per year during a storm event, and annually for years 3 through 5. The observations will be discussed in the periodic monitoring reports.

### **2.3.2 Water Elevation Monitoring**

Groundwater elevation monitoring will be conducted at each of the piezometers quarterly for the first year, semi-annually in the second year, and annually for years 3 through 5. Elevations will be measured at all piezometers in the shortest time possible, in order to evaluate contemporaneous groundwater elevations and hydraulic gradients. Depth-to-water will be measured using an electric water level indicator to the nearest 0.01 foot relative to the top of the piezometer cap survey point. These measurements will be recorded to the nearest 0.01 foot in the field logbook as will the measurement date, time, and sampler's initials.



The groundwater elevation data will also be used to assess the water balance within the containment system and hydraulic gradients across the containment. If the data indicates significant water flow into or out of the containment, Weyerhaeuser will notify Ecology and appropriate measures will be discussed. The effectiveness of the hydraulic containment will be discussed in a monitoring report following each monitoring event.

Should a steadily increasing water elevation within the contained portion of the upper sand aquifer become apparent, Weyerhaeuser will notify Ecology to discuss the significance of the trend.

After the fifth year of monitoring, the PCMP will be evaluated and potential changes will be discussed with Weyerhaeuser and Ecology. Changes could include modification in monitoring frequency.

### **2.3.3 Water Quality Monitoring**

Groundwater quality monitoring will be conducted semi-annually at Piezometer PZ-3A for the first year, and annually during year 3 and year 5. Sampling will be conducted concurrent with the water level measurement activities described in Section 2.3.2. After the water level in PZ-3A has been measured, the piezometer will be purged using low flow techniques until groundwater field parameters (e.g., pH, conductivity, temperature) stabilize. After well purging, samples will be collected using a disposable bailer and laboratory supplied sample containers. The sample will be sent to an Ecology-certified analytical laboratory and analyzed for the following parameters:

- Total petroleum hydrocarbons as gasoline, diesel, and oil using Ecology Models NWTPH-G and NWTPH-D (extended)
- Total arsenic using EPA Method 6010B/7000 Series
- Pentachlorophenol using EPA Method 8041

The water quality data will be used to determine if chemical concentrations change over time. Purge water generated from sampling will be managed as hazardous waste.

## **2.4 Reporting**

Brief reports will be prepared following each monitoring event. These reports will be submitted to Ecology as detailed in the Consent Decree. The reports will include groundwater elevations and field observations of the cap and an assessment of the performance and compliance of the remedial action.

## **LIMITATIONS**

The services described in this report were performed consistent with generally accepted professional consulting principles and practices. No other warranty, express or implied, is made. These services were performed consistent with our agreement with our client. This report is solely for the use and information of our client unless otherwise noted. Any reliance on this report by a third party is at such party's sole risk.

Opinions and recommendations contained in this report apply to conditions existing when services were performed and are intended only for the client, purposes, locations, time frames, and project parameters indicated. We are not responsible for the impacts of any changes in environmental standards, practices, or regulations subsequent to performance of services. We do not warrant the accuracy of information supplied by others, nor the use of segregated portions of this report.

## REFERENCES

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Ecology. 1998. Consent Decree.

EMCON. 1994. Remedial investigation report for former Mill E/Koppers facility.  
Prepared for Weyerhaeuser Company by EMCON Northwest, Inc. May.

EMCON. 1997. Feasibility Study. Prepared for Weyerhaeuser Company by EMCON  
Inc. February.

EMCON. 1998. Engineering Design Report for former Mill E/Koppers facility.  
Prepared for Weyerhaeuser Company by EMCON Northwest, Inc. March.

## **TABLES**

Table 2-1

Rationale for Performance Monitoring Approach

Cleanup Action Component	Performance Objective	Performance Metric	Monitoring Approach
Asphalt Cap	Prevent direct contact with contaminated soil	<ul style="list-style-type: none"> <li>Physical integrity of cap</li> </ul>	<ul style="list-style-type: none"> <li>Periodic inspection</li> </ul>
	Minimize infiltration and reduce leaching of contaminants from soil to groundwater	<ul style="list-style-type: none"> <li>Physical integrity of cap</li> <li>Water levels inside barrier wall</li> </ul>	<ul style="list-style-type: none"> <li>Periodic inspection</li> <li>Water level measurements</li> </ul>
	Prevent direct contact with contaminated soil	<ul style="list-style-type: none"> <li>Physical integrity of soil cover</li> </ul>	<ul style="list-style-type: none"> <li>Periodic inspection</li> </ul>
Barrier Wall	Minimize flow of groundwater through contaminated soil and NAPL	<ul style="list-style-type: none"> <li>Hydraulic containment of major source areas.</li> </ul>	<ul style="list-style-type: none"> <li>Water level measurements</li> <li>Water quality monitoring</li> </ul>
	Long-term reductions in flux of IHSs in shallow groundwater migrating to river.	<ul style="list-style-type: none"> <li>Hydraulic containment of major source areas.</li> </ul>	<ul style="list-style-type: none"> <li>Water level measurements</li> </ul>
	Long-term reductions in flux of IHSs in deep groundwater migrating to river	<ul style="list-style-type: none"> <li>Reduced hydraulic gradients between shallow and deep aquifers.</li> </ul>	<ul style="list-style-type: none"> <li>Water level measurements</li> </ul>

Table 2-2

Performance Monitoring Plan<sup>a</sup>

Monitoring Activity	Description	Frequency	Criteria
Asphalt Cap Inspection	Inspect asphalt cap and related drainage features for the following: <ul style="list-style-type: none"> <li>• cracked or damaged asphalt</li> <li>• areas of uneven settlement or standing water</li> <li>• general condition of the drainage ditches</li> <li>• drainage ditches free of debris</li> </ul>	<ul style="list-style-type: none"> <li>• Semi-annually for first two years, including at least one per year during storm event</li> <li>• Annually for years 3 through 5</li> </ul>	<ul style="list-style-type: none"> <li>• If potential problems identified, repair or maintain per O&amp;M manual</li> </ul>
Soil Cover Inspection	Inspect soil cover, to include the following: <ul style="list-style-type: none"> <li>• excessive erosion or poorly vegetated areas</li> <li>• excessive standing water</li> </ul>	<ul style="list-style-type: none"> <li>• Semi-annually for first two years</li> <li>• Annually for years 3 through 5</li> </ul>	<ul style="list-style-type: none"> <li>• If potential problems identified, repair or maintain per O&amp;M manual</li> </ul>
Water Level Monitoring	Measure water levels at three piezometers installed inside barrier wall and in three piezometers monitoring wells installed outside wall	<ul style="list-style-type: none"> <li>• Quarterly for first year</li> <li>• Semi-annually for second year</li> <li>• Annually for years 3 through 5</li> </ul>	<ul style="list-style-type: none"> <li>• If water levels inside barrier wall are stable or decrease, system is functioning adequately</li> <li>• If water levels increase, evaluate performance of cap and implement corrective action as necessary, and increase water level monitoring frequency</li> </ul>
Water Quality Monitoring	Monitor well PZ-3A for arsenic, pentachlorophenol, and TPH	<ul style="list-style-type: none"> <li>• Semiannually for first year</li> <li>• Annually in years 3 and 5</li> </ul>	<ul style="list-style-type: none"> <li>• Monitor changes in concentrations of chemical constituents within barrier wall</li> </ul>

<sup>a</sup> Plan will be re-evaluated after 5 years.

**EXHIBIT F**

**GROUND WATER SAMPLING DATA  
SUBMITTAL REQUIREMENTS**

**Weyerhaeuser Mill E/Koppers Site  
Everett, Washington**

Exhibit F -

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

1. Media

Required data must be submitted on MS-DOS<sup>1</sup>(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.

---

<sup>1</sup> Trademark of the Microsoft Corporation



# Washington State Toxics Cleanup Program Data Submittal File Formats

## FIELD DEFINITIONS FOR SITE DESCRIPTION FILE

<u>FIELD</u>	<u>TYPE</u>	<u>WIDTH</u>	<u>DEFINITION</u>
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	20	Name of Driller.

**EXHIBIT G**

**RESTRICTIVE COVENANT**

**Weyerhaeuser Mill E/Koppers Site  
Everett, Washington**

EXHIBIT G  
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 soil concentrations of TPH above Ecology's Method A cleanup level, PCP, and CPAH which exceed Ecology's Method B cleanup levels for soils. The restrictive covenant is also required because the arsenic groundwater and soil contamination is addressed in the remedial action only within the containment area on Site.

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 "Mill E/Koppers Site". Weyerhaeuser Company makes the following declarations as to limitations, restrictions, and uses to which the Mill E/Koppers 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 Mill E/Koppers Site.

Section 1. No groundwater may be taken for domestic purposes from any well at the Mill E/Koppers Site.

Section 2. No residential development may take place on the Site.

Section 3. Any activity on the Mill E/Koppers Site that may interfere with the viability of the containment systems or containment of the hazardous substances on the Site is prohibited. Any activity on the Mill E/Koppers 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.

Section 4. Any development of the Mill E/Koppers Site shall ensure the containment of the hazardous substances that are exposed or ensure proper management and disposal. Ecology will receive notice of any development that may impact the contained hazardous substances at least 30 days prior to such development.

Section 5. The owner of the Mill E/Koppers 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 Mill E/Koppers Site. No conveyance of title, easement, lease or other interest in the Mill E/Koppers Site shall be consummated by the owner without adequate and complete provision for the continued operation, maintenance and monitoring of the Cleanup Action.

Section 6. The owner of the Mill E/Koppers Site must notify and obtain approval from the Department of Ecology, or from a successor agency, prior to any use of the Mill E/Koppers Site that is 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 7. The owner shall allow authorized representatives of the Department of Ecology, or of a successor agency, the right to enter the Mill E/Koppers Site at reasonable times for the purpose of evaluating compliance

with the Cleanup Action Plan and the Consent Decree, to take samples, to inspect Cleanup Actions conducted at the Mill E/Koppers Site, and to inspect records that are related to the Cleanup Action.

Section 8. The owner of the Mill E/Koppers 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 Mill E/Koppers 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.

Executed as of the \_\_\_\_\_ day of \_\_\_\_\_, \_\_\_\_\_

Property Owner:           Weyerhaeuser  
By \_\_\_\_\_  
Its \_\_\_\_\_

Attachments:

Exhibit A-Legal Description of Property

STATE OF WASHINGTON        )  
                                  )   ss.  
COUNTY OF SNOHOMISH     )

On this \_\_\_\_\_ day of \_\_\_\_\_, before me, a Notary Public in and for the State of Washington, personally appeared \_\_\_\_\_, personally known to me (or proved to me on the basis of satisfactory evidence) to be the person who executed this instrument, on oath state that he was authorized to execute the instrument, and acknowledged it as the \_\_\_\_\_ of Weyerhaeuser to be the free and voluntary act and deed of said corporation for the uses and purposes mentioned in the instrument.

**IN WITNESS WHEREOF**, I have hereunto set my hand and official seal the day and year first above written.

\_\_\_\_\_  
NOTARY PUBLIC in and for the  
State of Washington, residing  
at \_\_\_\_\_  
My appointment expires \_\_\_\_\_  
Print Name \_\_\_\_\_



101 East Marine View Drive  
Everett, Washington 98201  
Tel (425) 339 2800  
Fax (425) 339 2786

July 26, 1999

Paul Skyllingstad  
Industrial Section  
Department of Ecology  
PO Box 47706  
Olympia, WA 98504-7706

JUL 28 1999  
Department of Ecology  
Industrial Section

**Subject: Recorded Restrictive Covenant for Weyerhaeuser Everett Mill  
E/Koppers Site**

Dear Paul:

Weyerhaeuser Company pursuant to Consent Decree entered in State of Washington Department of Ecology v Weyerhaeuser Company, Snohomish County Superior Court No 98-2-08718-6, has recorded a Restrictive Covenant for the real property known as the former Everett Weyerhaeuser Mill E/Koppers Site.

Attached is a copy the Restrictive Covenant that was recorded under Snohomish County Auditor Number: 199907260455 Also enclosed is the recording payment receipt from the County

The filing of this Restrictive Covenant is another step to completing the requirements set forth in the Decree. In August, we anticipate submitting the final report and drawings, which will describe the complete environmental remediation Upon acceptance by Ecology, would you please prepare the certification letter that Weyerhaeuser has completed the construction phase of this project

Thank you for your assistance If you have any questions, please contact me at 425-339-2871

Sincerely,

*Stuart Triolo*  
for Stuart Triolo

Stuart Triolo  
Environmental Engineer  
record restrictive covenant DOC

Enclosures: Recorded Restrictive Covenant and receipt

cc: Arlan Ruf

DOC  
Air  
Water  
DW R  
HWC  
S  
C

AFN 199907260455

**FILED FOR RECORD AT THE REQUEST OF:**

WEYERHAEUSER COMPANY  
LAND TITLE DEPARTMENT  
PO BOX 2999  
TACOMA WA 98477-2999

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**Type Of Document:** RESTRICTIVE COVENANT

**Reference Number(s) Of  
Document(s) Assigned Or Released:** N/A

**Grantor(s):** WEYERHAEUSER COMPANY

**Grantee(s):** N/A

**Abbreviated Legal Description:** PORTIONS OF SECTION 8, 9 & 16  
T 29 N , R 5 E

**Assessor's Property Tax Parcel  
Or Account Number(s):** 162905 -2-005-0005

**COPY**  
ORIGINAL ON FILE IN THE  
COUNTY AUDITOR'S OFFICE

**RESTRICTIVE COVENANT**



199907260455

07/26/1999 11:33 AM Snohomish  
P.0006 RECORDED County

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. 98-2-08718-6 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 soil concentrations of TPH above Ecology's Method A cleanup level, PCP, and CPAH which exceed Ecology's Method B cleanup levels for soils. The restrictive covenant is also required because the arsenic groundwater and soil contamination is addressed in the remedial action only within the containment area on Site.

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 "Mill E/Koppers Site". Weyerhaeuser Company makes the following declarations as to limitations, restrictions, and uses to which the Mill E/Koppers 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 Mill E/Koppers Site.

Section 1. No groundwater may be taken for domestic purposes from any well at the Mill E/Koppers Site

Section 2. No residential development may take place on the Site.

Section 3. Any activity on the Mill E/Koppers Site that may interfere with the viability of the containment systems or containment of the hazardous substances on the Site is prohibited. Any activity on the Mill E/Koppers 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.

Section 4. Any development of the Mill E/Koppers Site shall ensure the containment of the hazardous substances that are exposed or ensure proper management and disposal. Ecology will receive notice of any development that may impact the contained hazardous substances at least 30 days prior to such development.

Section 5. The owner of the Mill E/Koppers 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 Mill E/Koppers Site. No conveyance of title, easement, lease or other interest in the Mill E/Koppers Site shall be consummated by the owner without adequate and complete provision for the continued operation, maintenance and monitoring of the Cleanup Action.

Section 6. The owner of the Mill E/Koppers Site must notify and obtain approval from the Department of Ecology, or from a successor agency, prior to any use of the Mill E/Koppers

Site that is 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 7. The owner shall allow authorized representatives of the Department of Ecology, or of a successor agency, the right to enter the Mill E/Koppers Site at reasonable times for the purpose of evaluating compliance with the Cleanup Action Plan and the Consent Decree, to take samples, to inspect Cleanup Actions conducted at the Mill E/Koppers Site, and to inspect records that are related to the Cleanup Action.

Section 8. The owner of the Mill E/Koppers 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 Mill E/Koppers 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.

Executed as of the 15<sup>th</sup> day of July, 1999  
Property Order: Weyerhaeuser  
By Carl W. Geist Jr.  
Its Vice President, Pulp Business

Attachments:

Exhibit A-Legal Description of Property

**STATE OF WASHINGTON**

**COUNTY OF KING**

On this 15<sup>th</sup> day of JULY, 1999, before me, a Notary Public in and for the State of Washington, personally appeared CARL W. GEIST JR I personally known to me (or proved to me on the basis of satisfactory evidence) to be the person who executed this instrument, on oath state that he was authorized to execute the instrument, and acknowledged it as the VICE PRESIDENT of Weyerhaeuser to be the free and voluntary act and deed of said corporation for the uses and purposes mentioned in the instrument.

**IN WITNESS WHEREOF**, I have hereunto set my hand and official seal the day and year first above written.

Mariel M. Olson  
NOTARY PUBLIC in and for the  
State of Washington, residing  
at KENT  
My appointment expires 6-13-02  
Print Name MARIEL M. OLSON



**FILED**

DEC 1 1998

PAM L. DANIELS  
COUNTY CLERK  
Everett, WA

**EXHIBIT A 98 2 08718 6**

**LEGAL DESCRIPTION**

**Weyerhaeuser Mill E/Koppers Site  
Everett, Washington**

WHEN RECORDED PLEASE  
RETURN TO  
WEYERHAEUSER COMPANY  
LAND TITLE DEPT  
PO BOX 2999  
TACOMA, WA 98477-2999

PD TRACT 11-3 LEGAL DESCRIPTION AFTER BOUNDARY LINE ADJUSTMENT

THAT PORTION OF GOVERNMENT LOT 7 AND THE SOUTHEAST QUARTER OF THE SOUTHEAST QUARTER OF SECTION 8, AND THAT PORTION OF GOVERNMENT LOT 9, SECTION 9, TOWNSHIP 29 NORTH, RANGE 5 EAST OF THE WILLAMETTE MERIDIAN, DESCRIBED AS FOLLOWS: COMMENCING AT THE SOUTHWEST CORNER OF SAID GOVERNMENT LOT 9, WITH THE CENTER LINE OF THE ORIGINAL MAIN TRACK SECTION 9, WITH THE CENTER LINE OF SAID GOVERNMENT LOT 9, OF THE NORTHERN PACIFIC RAILWAY COMPANY, WHICH POINT BEARS NORTH 89° 12' 51" EAST A DISTANCE OF 67.76 FEET FROM THE SOUTHWEST CORNER OF SAID GOVERNMENT LOT 9, ALL AS SHOWN ON THAT CERTAIN SURVEY RECORDED IN VOLUME 37 OF SURVEYS, PAGES 196 THROUGH 206, INCLUSIVE, RECORDS OF SNOHOMISH COUNTY, WASHINGTON, THENCE NORTH 89° 12' 51" EAST, ALONG THE SOUTH LINE OF SAID GOVERNMENT LOT 9, A DISTANCE OF 21.17 FEET TO A POINT ON THE EAST LINE OF THE NORTHERN PACIFIC RAILWAY COMPANY 100 FOOT WIDE FORMER RIGHT OF WAY AS SHOWN ON SAID SURVEY, WHICH POINT IS THE TRUE POINT OF BEGINNING; THENCE NORTH 19° 57' 15" WEST, ALONG THE EAST LINE OF SAID RIGHT OF WAY, A DISTANCE OF 2364.81 FEET; THENCE ON A CURVE OF THE EAST LINE OF SAID RIGHT OF WAY, TO THE LEFT, HAVING A RADIUS OF 784.49 FEET, THROUGH A CENTRAL ANGLE OF 3° 41' 30", AN ARC DISTANCE OF 50.55 FEET TO A POINT ON THE SOUTH LINE OF THAT CERTAIN TRACT DESIGNATED AS PARCEL NO. 2 IN THAT DEED DATED DECEMBER 1, 1892, FROM EVERETT LAND COMPANY, TO THE PUGET SOUND REDUCTION COMPANY OF CLEVELAND, OHIO, AND RECORDED IN VOLUME 30 OF DEEDS AT PAGE 113 IN THE OFFICE OF THE AUDITOR OF SAID SNOHOMISH COUNTY; THENCE NORTH 56° 25' 52" EAST, ALONG SAID SOUTH LINE OF PARCEL 2, TO THE LEFT BANK OF THE SNOHOMISH RIVER; THENCE IN A SOUTHERLY DIRECTION, ALONG THE LEFT BANK OF THE SNOHOMISH RIVER TO A POINT ON THE SOUTH LINE OF SAID GOVERNMENT LOT 9; THENCE SOUTH 89° 12' 51" WEST, ALONG THE SOUTH LINE OF SAID GOVERNMENT LOT 9, A DISTANCE OF 840.76 FEET TO THE TRUE POINT OF BEGINNING, EXCEPT ALL THAT PORTION OF SAID GOVERNMENT LOT 9, SECTION 9, DESCRIBED AS FOLLOWS: COMMENCING AT THE SOUTHWEST CORNER OF SAID SECTION 9; THENCE NORTH 89° 12' 51" EAST, ALONG THE SOUTH LINE OF SAID SECTION 9, A DISTANCE OF 432.39 FEET TO THE TRUE POINT OF BEGINNING; THENCE NORTH 57° 55' 37" EAST A DISTANCE OF 134.97 FEET; THENCE NORTH 74° 24' 33" EAST A DISTANCE OF 114.14 FEET; THENCE NORTH 81° 31' 30" EAST A DISTANCE OF 104.50 FEET; THENCE NORTH 71° 02' 33" EAST A DISTANCE OF 64.27 FEET; THENCE SOUTH 75° 03' 41" EAST A DISTANCE OF 105.54 FEET TO A POINT ON THE LINE OF MEAN HIGH TIDE OF THE LEFT BANK OF THE SNOHOMISH RIVER, WHICH POINT IS ON THE FACE OF A TIMBER BULKHEAD; THENCE SOUTH 3° 44' 09" EAST, ALONG SAID LINE OF MEAN HIGH TIDE AND SAID TIMBER BULKHEAD A DISTANCE OF 104.83 FEET TO A POINT ON THE SOUTH LINE OF SAID SECTION 9; THENCE SOUTH 89° 12' 51" WEST, ALONG SAID SOUTH LINE OF SECTION 9, A DISTANCE OF 497.30 FEET TO THE TRUE POINT OF BEGINNING.

PD TRACT 11-4 LEGAL DESCRIPTION AFTER BOUNDARY LINE ADJUSTMENT

ALL THAT PORTION OF GOVERNMENT LOT 9, IN SECTION 9, TOWNSHIP 29 NORTH, RANGE 5 EAST OF THE WILLAMETTE MERIDIAN, DESCRIBED AS FOLLOWS: COMMENCING AT THE SOUTHWEST CORNER OF SAID GOVERNMENT LOT 9; THENCE NORTH 89° 12' 51" EAST, ALONG THE SOUTH LINE OF SAID SECTION 9, A DISTANCE OF 432.39 FEET TO THE TRUE POINT OF BEGINNING; THENCE NORTH 57° 55' 37" EAST A DISTANCE OF 134.97 FEET; THENCE NORTH 74° 24' 33" EAST A DISTANCE OF 114.14 FEET; THENCE NORTH 81° 31' 30" EAST A DISTANCE OF 104.50 FEET; THENCE SOUTH NORTH 71° 02' 33" EAST A DISTANCE OF 64.27 FEET; THENCE SOUTH 75° 03' 41" EAST A DISTANCE OF 105.54 FEET TO A POINT ON THE LINE OF MEAN HIGH TIDE OF THE LEFT BANK OF THE SNOHOMISH RIVER, WHICH POINT IS ON THE FACE OF A TIMBER BULKHEAD; THENCE SOUTH 3° 44' 09" EAST, ALONG SAID LINE OF MEAN HIGH TIDE AND SAID TIMBER BULKHEAD A DISTANCE OF 104.83 FEET TO A POINT ON THE SOUTH LINE OF SAID SECTION 9; THENCE SOUTH 89° 12' 51" WEST, ALONG SAID SOUTH LINE OF SECTION 9, A DISTANCE OF 497.30 FEET TO THE TRUE POINT OF BEGINNING.

TOGETHER WITH THAT PORTION OF GOVERNMENT LOT 2 OF SECTION 16 IN TOWNSHIP 29 NORTH, RANGE 5 EAST OF THE WILLAMETTE MERIDIAN, BEING A PORTION OF LOTS "A", "B", "C" AND "D" OF THE PLAT OF SUBDIVISION OF LOT 2 SEC. 16 T. 29 N. R. 5 E. W. M., ACCORDING TO THE PLAT THEREOF RECORDED IN VOLUME 5 OF PLATS, PAGE 16, RECORDS OF SNOHOMISH COUNTY, WASHINGTON, DESCRIBED AS FOLLOWS: COMMENCING AT THE NORTHWEST CORNER OF SAID GOVERNMENT LOT 2, THENCE NORTH 89° 12' 51" EAST, ALONG THE NORTH LINE OF SAID SECTION 16, A DISTANCE OF 432.39 FEET TO THE TRUE POINT OF BEGINNING; THENCE SOUTH 57° 55' 37" WEST A DISTANCE OF 41.01 FEET; THENCE SOUTH 12° 56' 04" WEST A DISTANCE OF 143.05 FEET; THENCE SOUTH 15° 31' 15" EAST A DISTANCE OF 117.99 FEET; THENCE SOUTH 27° 44' 21" EAST A DISTANCE OF 715.71 FEET TO A POINT ON THE LINE OF MEAN HIGH TIDE OF THE LEFT BANK OF THE SNOHOMISH RIVER, WHICH POINT IS ON THE FACE OF A TIMBER BULKHEAD; THENCE IN A NORTHERLY DIRECTION, ALONG SAID LINE OF MEAN HIGH TIDE AND SAID TIMBER BULKHEAD ON THE FOLLOWING COURSES: NORTH 18° 40' 16" EAST 417.89 FEET, NORTH 16° 03' 42" EAST 84.09 FEET, NORTH 13° 24' 08" EAST 90.75 FEET, NORTH 8° 49' 41" EAST 63.97 FEET, NORTH 5° 57' 29" EAST 86.56 FEET, NORTH 3° 28' 47" EAST 83.16 FEET, NORTH 0° 17' 19" EAST 64.72 FEET, NORTH 3° 44' 09" WEST 50.28 FEET TO A POINT ON THE NORTH LINE OF SAID SECTION 16; THENCE SOUTH 89° 12' 51" WEST, ALONG SAID NORTH LINE OF SECTION 16, A DISTANCE OF 497.30 FEET TO THE TRUE POINT OF BEGINNING.

CONTAINING 8.40 ACRES, MORE OR LESS.

PD TRACT 11-4 LEGAL DESCRIPTION AFTER BOUNDARY LINE ADJUSTMENT

ALL THAT PORTION OF GOVERNMENT LOT 9, IN SECTION 9, TOWNSHIP 29 NORTH, RANGE 5 EAST OF THE WILLAMETTE MERIDIAN, DESCRIBED AS FOLLOWS; COMMENCING AT THE SOUTHWEST CORNER OF SAID GOVERNMENT LOT 9; THENCE NORTH 89° 12' 51" EAST, ALONG THE SOUTH LINE OF SAID SECTION 9, A DISTANCE OF 432.39 FEET TO THE TRUE POINT OF BEGINNING; THENCE NORTH 57° 55' 37" EAST A DISTANCE OF 134.97 FEET; THENCE NORTH 74° 24' 33" EAST A DISTANCE OF 116.14 FEET; THENCE NORTH 81° 31' 30" EAST A DISTANCE OF 104.50 FEET; THENCE NORTH 71° 02' 33" EAST A DISTANCE OF 64.72 FEET; THENCE SOUTH 75° 03' 41" EAST A DISTANCE OF 105.54 FEET TO A POINT ON THE LINE OF MEAN HIGH TIDE OF THE LEFT BANK OF THE SNOHOMISH RIVER, WHICH POINT IS ON THE FACE OF A TIMBER BULKHEAD; THENCE SOUTH 3° 44' 09" EAST, ALONG SAID LINE OF MEAN HIGH TIDE AND SAID TIMBER BULKHEAD A DISTANCE OF 104.83 FEET TO A POINT ON THE SOUTH LINE OF SAID SECTION 9; THENCE SOUTH 89° 12' 51" WEST, ALONG SAID SOUTH LINE OF SECTION 9, A DISTANCE OF 497.30 FEET TO THE TRUE POINT OF BEGINNING.

TOGETHER WITH THAT PORTION OF GOVERNMENT LOT 2 OF SECTION 16 IN TOWNSHIP 29 NORTH, RANGE 5 EAST OF THE WILLAMETTE MERIDIAN, BEING A PORTION OF LOTS "A", "B", "C" AND "D" OF THE PLAT OF SUBDIVISION OF LOT 2 SEC. 16 T.29 N.R.5 E.W.M., ACCORDING TO THE PLAT THEREOF RECORDED IN VOLUME 5 OF PLATS, PAGE 16, RECORDS OF SNOHOMISH COUNTY, WASHINGTON, DESCRIBED AS FOLLOWS; COMMENCING AT THE NORTHWEST CORNER OF SAID GOVERNMENT LOT 2; THENCE NORTH 89° 12' 51" EAST, ALONG THE NORTH LINE OF SAID SECTION 16, A DISTANCE OF 432.39 FEET TO THE TRUE POINT OF BEGINNING; THENCE SOUTH 57° 55' 37" WEST A DISTANCE OF 41.01 FEET; THENCE SOUTH 12° 56' 04" WEST A DISTANCE OF 142.05 FEET; THENCE SOUTH 31° 15' 15" EAST A DISTANCE OF 117.99 FEET; THENCE SOUTH 27° 44' 21" EAST A DISTANCE OF 715.71 FEET TO A POINT ON THE LINE OF MEAN HIGH TIDE OF THE LEFT BANK OF THE SNOHOMISH RIVER, WHICH POINT IS ON THE FACE OF A TIMBER BULKHEAD; THENCE IN A NORTHERLY DIRECTION, ALONG SAID LINE OF MEAN HIGH TIDE AND SAID TIMBER BULKHEAD ON THE FOLLOWING COURSES; NORTH 18° 40' 16" EAST 417.89 FEET, NORTH 16° 03' 42" EAST 84.09 FEET, NORTH 13° 24' 08" EAST 90.75 FEET, NORTH 8° 49' 41" EAST 63.97 FEET, NORTH 0° 17' 19" EAST 64.72 FEET, NORTH 3° 44' 09" WEST 50.28 FEET TO A POINT ON THE NORTH LINE OF SAID SECTION 16; THENCE SOUTH 89° 12' 51" WEST, ALONG SAID NORTH LINE OF SECTION 16, A DISTANCE OF 497.30 FEET TO THE TRUE POINT OF BEGINNING.

CONTAINING 8.40 ACRES, MORE OR LESS.

PD TRACT 25 LEGAL DESCRIPTION AFTER BOUNDARY LINE ADJUSTMENT

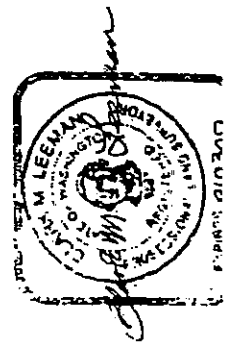
THAT PORTION OF GOVERNMENT LOT 2 OF SECTION 16 IN TOWNSHIP 29 NORTH, RANGE 5 EAST OF THE WILLAMETTE MERIDIAN, DESCRIBED AS FOLLOWS; LOT F OF THE SUPPLEMENTAL PLAT OF THE SUBDIVISION OF LOT 2, SECTION 16, TOWNSHIP 29 NORTH, RANGE 5 EAST OF THE WILLAMETTE MERIDIAN, ACCORDING TO THE OFFICIAL PLAT THEREOF ON FILE IN THE OFFICE OF THE COMMISSIONER OF PUBLIC LANDS AT OLYMPIA, WASHINGTON, TOGETHER WITH LOTS "A", "B", "C", "D" AND "E" PLAT OF SUBDIVISION OF LOT 2 SEC. 16 T.29 N.R.5 E.W.M., ACCORDING TO THE PLAT THEREOF RECORDED IN VOLUME 5 OF PLATS AT PAGE 16, RECORDS OF SNOHOMISH COUNTY, WASHINGTON, BEING A SUBDIVISION OF SAID GOVERNMENT LOT 2,

EXCEPT THEREFROM THAT CERTAIN 100 FOOT WIDE RIGHT OF WAY CONVEYED BY WEYERHAEUSER LUMBER COMPANY TO NORTHERN PACIFIC RAILWAY COMPANY BY DEED DATED MAY 8, 1915, AND RECORDED SEPTEMBER 23, 1915, UNDER AUDITOR'S FILE NUMBER 214498, AND FILED IN VOLUME 167 OF DEEDS AT PAGES 133 AND 134, RECORDS OF SAID COUNTY, ALSO EXCEPT THAT PORTION THEREOF DESCRIBED AS FOLLOWS; COMMENCING AT THE NORTHWEST CORNER OF SAID GOVERNMENT LOT 2; THENCE NORTH 89° 12' 51" EAST, ALONG THE NORTH LINE OF SAID SECTION 16 A DISTANCE OF 432.39 FEET TO THE TRUE POINT OF BEGINNING; THENCE SOUTH 57° 55' 37" WEST A DISTANCE OF 41.01 FEET; THENCE SOUTH 12° 56' 04" WEST A DISTANCE OF 142.05 FEET; THENCE SOUTH 31° 15' 15" EAST A DISTANCE OF 117.99 FEET; THENCE SOUTH 27° 44' 21" EAST A DISTANCE OF 715.71 FEET TO A POINT ON THE LINE OF MEAN HIGH TIDE OF THE LEFT BANK OF THE SNOHOMISH RIVER, WHICH POINT IS ON THE FACE OF A TIMBER BULKHEAD; THENCE IN A NORTHERLY DIRECTION, ALONG SAID LINE OF MEAN HIGH TIDE AND SAID TIMBER BULKHEAD ON THE FOLLOWING COURSES; NORTH 18° 40' 16" EAST 417.89 FEET, NORTH 16° 03' 42" EAST 84.09 FEET, NORTH 13° 24' 08" EAST 90.75 FEET, NORTH 8° 49' 41" EAST 63.97 FEET, NORTH 0° 17' 19" EAST 64.72 FEET, NORTH 3° 44' 09" WEST 50.28 FEET TO A POINT ON THE NORTH LINE OF SAID SECTION 16; THENCE SOUTH 89° 12' 51" WEST, ALONG SAID NORTH LINE OF SECTION 16, A DISTANCE OF 497.30 FEET TO THE TRUE POINT OF BEGINNING.

CONTAINING 16.35 ACRES, MORE OR LESS.

Exhibit A

AFN 199907260455



AFN 199907260455

FILED FOR RECORD AT THE REQUEST OF:

WEYERHAEUSER COMPANY  
LAND TITLE DEPARTMENT  
PO BOX 2999  
TACOMA WA 98477-2999

Type Of Document: RESTRICTIVE COVENANT

Reference Number(s) Of Document(s) Assigned Or Released: N/A

Grantor(s): WEYERHAEUSER COMPANY

Grantee(s): N/A

Abbreviated Legal Description: PORTIONS OF SECTION 8, 9 & 16  
T 29 N , R 5 E

Assessor's Property Tax Parcel Or Account Number(s): 162905 -2-005-0005

SUNSHINE COUNTY CLERK'S OFFICE  
RECORDING DIVISION  
425/388-4037

ISSUED TO PUBLIC

RECEIVED  
07/26/99 10:33:18 AM

DEED BY  
1999/07/26 PG 2  
GOVERNMENT

Total Amount Due \$13.00  
LPS 15.00

Total Payments: \$15.00  
Balance Due: \$0.00

FRANK JOE  
JERRY WILLIAMS  
AUDITOR  
SECURITY SALES

**EXHIBIT H**

**PUBLIC PARTICIPATION PLAN**

**Weyerhaeuser Mill E/Koppers Site  
Everett, Washington**

## Exhibit H

### Public Participation Plan

#### I. Public Participation Activities

The public participation plan for the Weyerhaeuser Mill E/Koppers Site includes the following activities:

A. A 30-day public comment period will be held for the draft cleanup action plan and consent decree, beginning October 8, 1998 and ending November 6, 1998

B. A public hearing on the Consent Decree shall be held on October 28, 1998 at 7:00 p.m. at Auditorium, Everett Library, 2702 Hoyt Ave., Everett, WA.

C. Notification of the potentially affected vicinity, which includes: the mill site and neighborhood near the mill site. Notification via the mail to approximately 1,400 individuals located in the neighborhood surrounding the site.

D. Advertising of the public comment period with a legal notice in the Everett Daily Herald on Thursday October 8, 1998.

E. The public will be provided copies of the signed SEPA documents, consent decree and draft cleanup action plan for review. Detailed information concerning the project is located at the Department of Ecology Industrial Section. Extra copies of the fact sheet, consent decree and cleanup action plan are available at the following locations:

Department of Ecology  
Industrial Section  
300 Desmond Drive  
P.O. Box 47600  
Olympia, Washington 98504-7600

Attn: Paul Skyllingstad

Phone number: (360) 407-6949  
FAX: (360) 407-6903

Everett Public Library  
2702 Hoyt  
Everett, Washington 98201-3556

Department of Ecology  
Northwest Regional Office  
3190 - 160<sup>th</sup> SE  
Bellevue, WA 98008-5452