

# PERIODIC REVIEW Final

Pony Lumber Company (aka Louisiana-Pacific Corporation) Facility Site ID#: 1209

> 3701 Taylor Way Tacoma, Washington 98421

**Southwest Regional Office** 

TOXICS CLEANUP PROGRAM

December 2011

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## 1.0 INTRODUCTION

This document is a review by the Washington State Department of Ecology (Ecology) of post-cleanup site conditions and monitoring data to ensure that human health and the environment are being protected at the former Pony Lumber Company site (Site). Cleanup at this Site was implemented under the Model Toxics Control Act (MTCA) regulations, Chapter 173-340 Washington Administrative Code (WAC).

Cleanup activities at this Site were completed under an enforcement order issued by Ecology in 1992. The cleanup actions resulted in concentrations of metals in soil exceeding MTCA Method A cleanup levels remaining at the Site. The MTCA Method A cleanup levels for soil are established under WAC 173-340-740(2). WAC 173-340-420 (2) requires that Ecology conduct a periodic review of a site every five years under the following conditions:

- (a) Whenever the department conducts a cleanup action.
- (b) Whenever the department approves a cleanup action under an order, agreed order or consent decree.
- (c) Or, as resources permit, whenever the department issues a no further action opinion and one of the following conditions exists:
  - 1. Institutional controls or financial assurance are required as part of the cleanup.
  - 2. Where the cleanup level is based on a practical quantitation limit.
  - 3. Where, in the department's judgment, modifications to the default equations or assumptions using site-specific information would significantly increase the concentration of hazardous substances remaining at the site after cleanup or the uncertainty in the ecological evaluation or the reliability of the cleanup action is such that additional review is necessary to assure long-term protection of human health and the environment.

When evaluating whether human health and the environment are being protected, the factors the department shall consider include [WAC 173-340-420(4)]:

- (a) The effectiveness of ongoing or completed cleanup actions.
- (b) New scientific information for individual hazardous substances of mixtures present at the site.
- (c) New applicable state and federal laws for hazardous substances present at the Site;
- (d) Current and projected site use.
- (e) Availability and practicability of higher preference technologies.
- (f) The availability of improved analytical techniques to evaluate compliance with cleanup levels.

The department shall publish a notice of all periodic reviews in the site register and provide an opportunity for public comment.

## 2.0 SUMMARY OF SITE CONDITIONS

# 2.1 Site History

The former Pony Lumber Company (aka Louisiana-Pacific Corporation) property is located in the City of Tacoma in Pierce County, Washington (Vicinity Map - Appendix 6.1). Ecology issued Enforcement Order No. DE 92TC-S312 for the Site in 1992. In February of 1993, a Restrictive Covenant was recorded for the property. Following the installation of a roller compacted concrete (RCC) cap in 1993, the Site received a No Further Action determination in 1997.

The former Pony Lumber Company (aka Louisiana-Pacific Corporation) property was developed as a Louisiana Pacific Log Yard in 1968. The log storage area has expanded from 3.5 acres in 1969 to 18 acres. During operation of the log yard, slag from the nearby American Smelting and Refining Company (ASARCO) copper smelter was imported and used as ballast at the Site. Approximately 1,800 tons of slag was imported during that time. In 2004, the Site was sold by Louisianan Pacific Corporation to Pony Lumber Company, LLC. In 2006, the Site was sold to the Port of Tacoma. The Eastern portion of the Site is currently used for the storage and repair of shipping containers and remainder of the Site is used for log handling.

# 2.2 Site Investigations

During 1983 and 1984, Ecology conducted a survey of logyards as possible sources of metal contamination in Commencement Bay sediments. Water samples were collected in December 1983 from three locations and in June 1984 from four additional locations along the perimeter of the Louisiana Pacific Log Sort Yard. Samples results indicated elevated concentrations of arsenic, copper, lead and zinc. Ecology determined that leachate from the ASARCO slag was the source of these metals and that the Site was contributing to contamination in Hylebos Creek and Hylebos Waterway via storm water runoff from the Site.

In 1987, Ecology issued an order which required a site investigation, groundwater investigation and feasibility study. These studies were conducted by CH2M-Hill in 1987. Following the feasibility study, Ecology prepared an addendum containing Ecology's preferred cleanup alternative which involved capping the Site. In 1990, Ecology issued Remedial Action Order No. DE 90-S170. This order required Louisiana-Pacific Corporation to evaluate the expected effectiveness of capping as a cleanup method, to conduct subgrade testing of the Site, and to prepare a cap design.

Measured levels of the contaminants of concern are available in the table below:

**Table 1: Measured Contaminant Concentrations** 

Contaminant	Surface Water Maximum	Groundwater Range	1990 Marine Acute Standard	1990 Marine Chronic Standard
	$(\mu g/l)$	$(\mu g/l)$	$(\mu g/l)$	$(\mu g/l)$
Total arsenic	3850	4 to 7	69	36
Dissolved arsenic	NM	<0.5 to 7	69	36
Total copper	1030	11 to 33	2.9	2.9
Dissolved copper	NM	< 0.5 to 0.8	2.9	2.9
Total lead	310	< 1	220	8.5
Dissolved lead	NM	< 0.5	220	8.5
Total zinc	1800	37 to 91	95	86
Dissolved zinc	NM	1 to 31	95	86

NM = Not measured

## 2.3 Remedial Activities

In 1992, Ecology issued Enforcement Order DE 92TC-S312 which required remedial actions at the Site, including the construction of an impervious cap over the entire log yard area of 18 acres. The cap was designed to prevent storm water from percolating into the slag and leaching metal contaminants into the Hylebos Waterway. Components were integrated into the cap to divert storm water off of the cap surface and into a storm water drainage system. Storm water was collected in six sedimentation basins on the logyard cap and passed through an oil/water separator before entering the Hylebos Waterway.

Cap construction began in 1993. Once a grade was established across the Site to promote storm water drainage, geotextile material was installed over the entire logyard. The geotextile was covered in two 24-inch lifts of compacted crushed ballast. A leveling course of 3-inch to 5/8-inch crushed rock was placed on top of the ballast. A reinforced concrete cap was placed in 9-inch and 7-inch lifts on top of the leveling course.

# 2.4 Cleanup Levels

Cleanup levels for the Site were established in the Final Cleanup Action Plan, which was submitted to Ecology in 1992. These cleanup levels are available in the table below:

Contaminant	Groundwater	Soil	Surface Water
	(ug/l)	(mg/kg)	(ug/l)
Arsenic	36	200	36
Copper	2.9	N/A	2.9
Lead	8.5	1000	8.5
Zinc	86	N/A	86

**Table 2: Site Cleanup Levels** 

Soil cleanup levels were based upon MTCA Method A standards for Industrial Use. Groundwater cleanup levels were based upon United States Environmental Protection Agency Water Quality Criteria – Marine Chronic Criteria. It was also stated that natural background values could be substituted as cleanup objectives by Ecology if human health risk assessment procedures set forth in WAC 173-340-708 are met. Surface Water standards are based on groundwater standards for the Site.

## 2.5 Groundwater Monitoring

As required by the Final Cleanup Action Plan and the Site Operations and Maintenance Plan, regularly scheduled groundwater monitoring has been conducted at the Site since 1995. Sampling was conducted quarterly from 1995 until 1997. Beginning in 1998, Ecology approved a reduction in groundwater sampling frequency. Groundwater sampling frequency was reduced from quarterly to annually, and it was alternated between the wet season and the dry season each year. In October 2000, Ecology approved reducing the groundwater sampling frequency from annually to biennially (once every two years), alternating wet and dry season monitoring every sampling event. The required groundwater sampling events were not conducted in 2004 and 2006. Between 1995 and 2002, copper exceeded Marine Chronic Standards in 21 of 62 samples, and zinc exceeded Marine Chronic Standards in 2 of 62 samples. Copper and Zinc did not exceed Marine Chronic Standards in 2007 or 2008. None of the metal concentrations exceeded cleanup standards during 2010. Arsenic and Lead did not exceed cleanup standards in any of the samples. No significant trends in groundwater contaminant concentrations have been observed during this period.

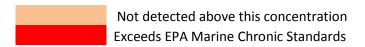
The Port of Tacoma (Port) is conducting the groundwater monitoring and cap maintenance as required by an Agreed Order or a Consent Decree with similar contaminants at five sites. To standardize the groundwater monitoring frequency and cap inspection amongst all these sites, the Department of Ecology (Ecology) and the Port of Tacoma entered into a Memorandum of Understanding (MOU) on September 1, 2011. As per this MOU, the Port is required to conduct the groundwater monitoring and cap inspection on a 30-months frequency. A copy of the MOU is included as Appendix 6.4.

**Table 3: Groundwater Contaminant Concentrations** 

Well	Date				
Number	Sampled	Arsenic	Copper	Lead	Zinc
		(mg/L)	(mg/L)	(mg/L)	(mg/L)
LP-1	3/22/1995	0.01	0.003	0.003	0.02
LP-1	6/21/1995	0.0046	0.0019	0.001	0.003
LP-1	9/25/1995	0.005	0.0014	0.003	0.02
LP-1	12/28/1995	0.005	0.01	0.003	0.05
LP-1	4/19/1996	0.005	0.003	0.003	0.01
LP-1	6/27/1996	0.01	0.002	0.008	0.01
LP-1	11/25/1996	0.005	0.002	0.002	0.005
LP-1	12/17/1996	0.2	0.02	0.05	0.02
LP-1	3/28/1997	0.01	0.002	0.008	0.08
LP-1	7/9/1997	0.001	0.001	0.0005	0.0094
LP-1	9/26/1997	0.0027	0.001	0.0005	0.0043
LP-1	12/18/1997	0.0033	0.0018	0.0005	0.0056
LP-1	6/30/1998	0.0042	0.001	0.0005	0.002
LP-1	10/22/1999	0.0017	0.0013	0.001	0.17
LP-1	8/1/2000	0.0018	0.0016	0.001	0.004
LP-1	2/1/2002	0.001	0.004	0.001	0.0149
LP-1	7/1/2007	.001	.002	.001	.01
LP-1	5/1/2008	.001	.002	.001	.01
LP-1	9/16/2010	<0.0005	<0.0005	<0.0005	0.0027
LP-2	3/22/1995	0.01	0.002	0.003	0.02
LP-2	6/21/1995	0.0046	0.0013	0.001	0.0058
LP-2	9/25/1995	0.005	0.043	0.0058	0.02
LP-2	12/28/1995	0.005	0.01	0.003	0.02
LP-2	3/28/1996	0.01	0.002	0.008	0.02
LP-2	6/27/1996	0.01	0.002	0.008	0.01
LP-2	11/25/1996	0.005	0.002	0.002	0.005
LP-2	12/17/1996	0.2	0.02	0.05	0.02
LP-2	7/9/1997	0.001	0.001	0.00074	0.018
LP-2	9/26/1997	0.0037	0.001	0.0005	0.003
LP-2	12/18/1997	0.0015	0.002	0.0005	0.0028
LP-2	6/30/1998	0.0042	0.0013	0.0005	0.002

LP-2	10/22/1999	0.0025	0.001	0.001	0.086
LP-2	8/1/2000	0.001	0.001	0.0005	0.004
LP-2	2/1/2002	0.0026	0.0355	0.00387	0.0785
LP-2	7/1/2007	.001	.002	.001	.01
LP-2	5/1/2008	.001	.002	.001	.01
LP-2	9/16/2010	<0.0005	<0.0005	<0.0005	0.004
LP-4	3/22/1995	0.01	0.005	0.003	0.02
LP-4	6/21/1995	0.0069	0.0059	0.001	0.018
LP-4	9/25/1995	0.0071	0.022	0.0046	0.02
LP-4	12/28/1995	0.002	0.005	0.001	0.02
LP-4	4/19/1996	0.01	0.002	0.008	0.02
LP-4	6/27/1996	0.01	0.004	0.008	0.01
LP-4	11/25/1996	0.005	0.004	0.004	0.007
LP-4	12/17/1996	0.2	0.02	0.05	0.02
LP-4	3/28/1997	0.01	0.004	0.008	0.08
LP-4	7/9/1997	0.0029	0.0017	0.00055	0.027
LP-4	9/26/1997	0.0076	0.002	0.0005	0.0066
LP-4	12/18/1997	0.0073	0.0062	0.0005	0.01
LP-4	6/30/1998	0.0033	0.0025	0.0005	0.002
LP-4	10/22/1999	0.0018	0.001	0.001	0.075
LP-4	8/1/2000	0.001	0.001	0.0005	0.004
LP-4	2/1/2002	0.0055	0.0061	0.00104	0.0104
LP-4	7/1/2007	.004	.002	.001	.01
LP-4	5/1/2008	.001	.002	.001	.01
LP-4	9/16/2010	<0.0005	0.0008	<0.0005	0.0055
LP-5	3/22/1995	0.1	0.002	0.003	0.02
LP-5	6/21/1995	0.0031	0.0034	0.001	0.033
LP-5	9/25/1995	0.0056	0.02	0.0044	0.02
LP-5	12/28/1995	0.005	0.002	0.001	0.02
LP-5	4/19/1996	0.01	0.002	0.008	0.02
LP-5	6/27/1996	0.01	0.002	0.008	0.01
LP-5	11/25/1996	0.005	0.002	0.002	0.016
LP-5	12/17/1996	0.2	0.02	0.05	0.02
LP-5	3/28/1997	0.01	0.002	0.008	0.08
LP-5	7/9/1997	0.001	0.001	0.001	0.037
LP-5	9/26/1997	0.0077	0.001	0.0005	0.01
LP-5	12/18/1997	0.004	0.0017	0.0005	0.0061
LP-5	6/30/1998	0.011	0.001	0.0005	0.0031
LP-5	10/22/1999	0.0079	0.0012	0.001	0.14
LP-5	8/1/2000	0.001	0.001	0.0005	0.004

LP-5	2/1/2002	0.0091	0.0062	0.00102	0.0696
LP-5	7/1/2007	.003	.002	.001	.01
LP-5	5/1/2008	.001	.002	.001	.01
LP-5	9/16/2010	0.0007	<0.0005	<0.0005	0.001
Cleanup					
Level		.036	.0029	.0085	.086



## 2.6 Restrictive Covenant

Following remediation, a Restrictive Covenant was recorded for the Site in 1992. The Restrictive Covenant imposes the following limitations:

- 1. The Site may be used only for Industrial uses.
- 2. Any activity on the Site that may interfere with or reduce the effectiveness of the Cleanup Action or any other activity required by the Enforcement Order is prohibited. The Ecology project manager must be informed in writing two weeks prior to any site activity which might be inconsistent with this section.
- 3. The owner of the Site must give written notice to Ecology of the owner's intent to convey any interest in the Site.
- 4. The owner must notify and obtain approval from Ecology prior to any use of the Site that may be inconsistent with the terms of the Restrictive Covenant.
- 5. The owner or successor owner shall grant Ecology the right to enter the site at reasonable times.
- 6. The owner or successor owner reserves the right to remove this Covenant with Ecology's approval.

The Restrictive Covenant is available as Appendix 6.3.

## 3.0 PERIODIC REVIEW

# 3.1 Effectiveness of completed cleanup actions

Based upon the site visit conducted on October 19, 2011, the concrete cover at the Site is intact except at a few locations where minor cracks are developing. Recently all cracks in the southwestern portion of the Site have been repaired as required by the Site operation and maintenance plan. However, still there are few minor cracks present beneath the containers storage area and northern portion of the Site. The Port of Tacoma is in the process of repairing these cracks as the weather permits and accessible within the containers storage area. Nonetheless, the overall integrity of the cap seems to be in satisfactory condition. The western

portion of the Site is being used for log sorting and storage, central portion for containers storage and northeastern portion is vacant. The concrete cap at the Site continues to eliminate direct exposure pathways (ingestion, contact) to contaminated soils. It also appears to be effective in eliminating storm water percolation into contaminated soils below the cap. A photo log is available as Appendix 6.4.

The Restrictive Covenant for the Site was recorded and is in place. This Restrictive Covenant prohibits activities that will result in the release of contaminants contained as part of the cleanup without Ecology's approval, and prohibits any use of the property that is inconsistent with the Covenant. This Restrictive Covenant serves to ensure the long term integrity of the Site surface by requiring compliance with the Enforcement Order issued in 1992.

As per the requirements of the 2011 MOU, future groundwater sampling will be conducted at the Site on a 30-months schedule. Required sampling events were not conducted in 2003, 2004, 2005 and 2006. Concentrations of copper exceeded cleanup standards as recently as 2002, but samples from 2007, 2008 and 2010 did not exceed cleanup standards for any of the contaminants of concern for the Site.

One deficiency was observed while reviewing Ecology's files for the Site.

• There is no record of notification of the sale of the property from Pony Lumber Company, LLC, to the Port of Tacoma.

# 3.2 New scientific information for individual hazardous substances for mixtures present at the Site

Cleanup levels at the site were based on regulatory standards rather than calculated risk for chemicals and/or media. These standards continue to be protective of site-specific conditions.

# 3.3 New applicable state and federal laws for hazardous substances present at the Site

The cleanup at the site was governed by Chapter 173-340 WAC (1996 ed.). WAC 173-340-702(12) (c) [2001 ed.] provides that,

"A release cleaned up under the cleanup levels determined in (a) or (b) of this subsection shall not be subject to further cleanup action due solely to subsequent amendments to the provision in this chapter on cleanup levels, unless the department determines, on a case-by-case basis, that the previous cleanup action is no longer sufficiently protective of human health and the environment."

The current MTCA Method A Industrial soil cleanup standard for arsenic has been reduced from 200 mg/kg to 20 mg/kg since the final Enforcement Order was issued. Because contaminated soils at the Site have been capped, the modification to the MTCA cleanup standard does not

represent an increase in risk to human health or the environment. Several of the state marine chronic surface water quality criteria have also changed since the Enforcement Order was issued. Values for lead and zinc have been reduced to 8.1 and 81  $\mu$ g/l, respectively. A review of groundwater data from 1994 to 2002 indicates that these values have not been exceeded. Overall, the changes to the original standards have not resulted in the need for additional remedial actions at the site.

# 3.4 Current and projected site use

The site is currently used for industrial purposes. The Site has been purchased by the Port of Tacoma and future use of the Site will likely involve activities related to shipping and receiving from the Port of Tacoma. These uses are not likely to have a negative impact on the integrity of the Site cap.

# 3.5 Availability and practicability of higher preference technologies

The remedy implemented included containment of hazardous substances, and it continues to be protective of human health and the environment. While higher preference cleanup technologies may be available, they are still not practicable at this Site.

# 3.6 Availability of improved analytical techniques to evaluate compliance with cleanup levels

The analytical methods used at the time of the remedial action were capable of detection below MTCA Method A cleanup levels. The presence of improved analytical techniques would not affect decisions or recommendations made for the site.

## 4.0 CONCLUSIONS

- The cleanup actions completed at the Site appear to be protective of human health and the environment.
- Soils cleanup levels have not been met at the Site; however, under WAC 173-340-740(6)(f), the cleanup action is determined to comply with cleanup standards since the long-term integrity of the containment system is ensured, and the requirements for containment technologies have been met.
- The Restrictive Covenant for the property is in place and will be effective in protecting public health and the environment from exposure to hazardous substances and protecting the integrity of the cleanup action.
- Groundwater monitoring is still required at the Site on a 30-month frequency. Monitoring was conducted in 2010, but sampling events were not conducted 2004 and 2006.

Concentrations of contaminants of concern did not exceed cleanup standards in 2007, 2008 and 2010.

- Continued cap inspection and maintenance are required every 30-months. Cap maintenance appears to be adequate at this time, but there is no record of the ongoing inspections required to ensure protection of the cap.
- Ecology was not notified prior to the transfer of the property from Pony Lumber Company, LLC. to the Port of Tacoma in 2006.

Based on this periodic review, the Department of Ecology has determined that the requirements in the Restrictive Covenant to notify Ecology prior to the transfer of the property from the Pony Lumber LLC to the Port of Tacoma was not complied with when the transfer occurred in 2006. The cap is currently in satisfactory condition, but some of the required groundwater monitoring did not occur prior to the transfer of the property to the Pot of Tacoma. At this time, the Site will not be returned to the Hazardous Sites List. However, future deficiencies may result in the Sites return to the Hazardous Sites List and rescinding of the No Further Action determination. It is the property owner's responsibility to continue to inspect the site to ensure that the integrity of the cap is maintained and to continue groundwater monitoring.

### 4.1 Next Review

The next review for the site will be scheduled five years from the date of this periodic review. In the event that additional cleanup actions or institutional controls are required, the next periodic review will be scheduled five years from the completion of those activities.

# 5.0 REFERENCES

CH2M-Hill. 1987. Site Investigation

Ecology. 1992. Enforcement Order No. DE 92TC-S312

Ecology. 2000. Restrictive Covenant

Ecology. 1992. Final Cleanup action Plan – Louisiana-Pacific Tacoma Log Sort Yard.

CH2M-Hill. 1993. Engineering Report – Tacoma Log Sort Yard RCC Cap.

Roy Jensen and Associates. 1998. December 1997 Groundwater Sampling and Analysis.

Roy Jensen and Associates. 1998. June 1998 Groundwater Sampling and Analysis.

Roy Jensen and Associates. 1999. October 1999 Groundwater Sampling and Analysis.

Louisiana-Pacific Corporation. 2001. Revised Operation, Maintenance Manual, and Monitoring Plan for Concrete Log Yard.

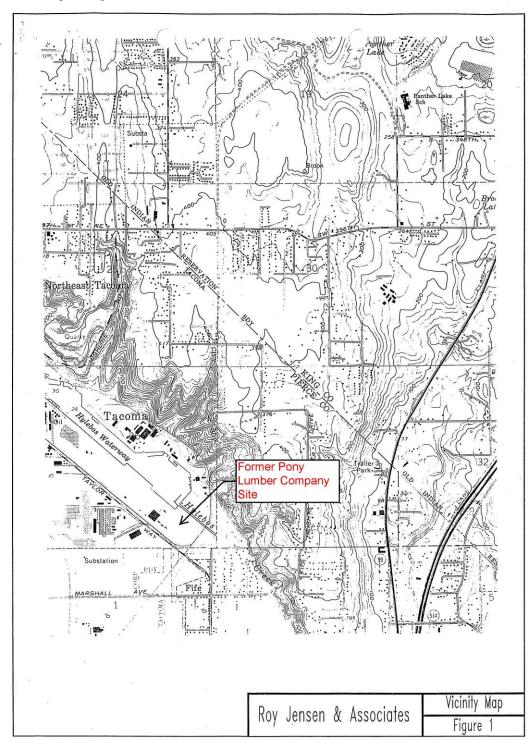
Louisiana-Pacific Corporation. 2002. Ground Water Monitoring, 2002 Wet Season.

Western States Environmental, Inc. 2008. 2008 Groundwater Sampling Results.

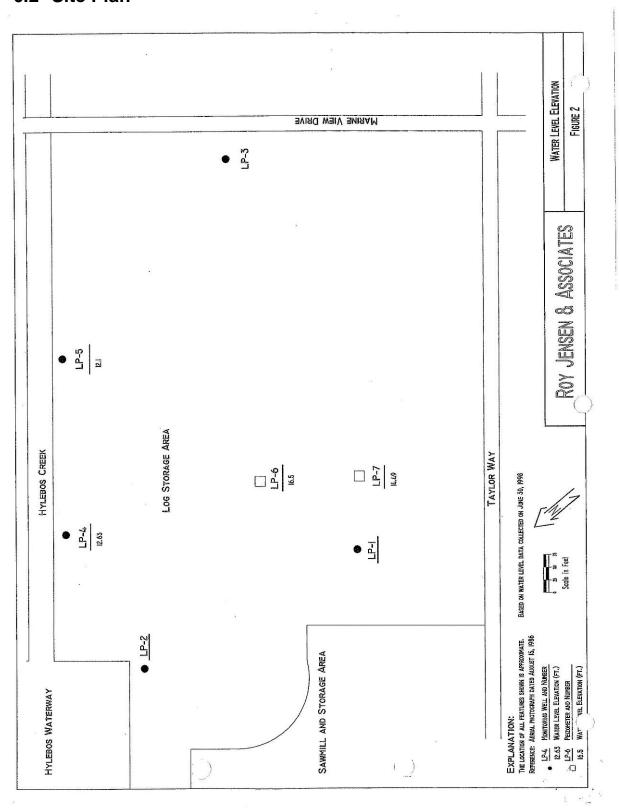
Ecology. October 19, 2011 Site Visit.

# 6.0 APPENDICES

# 6.1 Vicinity Map



# 6.2 Site Plan



## 6.3 Environmental Covenant





### Louisiana-Pacific Corporation

Legal Department P.O. Box 4000-98 N. 13455 Government Way Hayden Lake, Idaha 82835 (208) 772-60 E Ea E (208) 17211712

Anton C. Kirchhof / General Counsel Christopher M. (Kit) Keyes / Assistant General Counsel Bert P. Krages II Christopher J. Biencourt Douglas P. Anderson

'93 FEB 22 A9:46

S W. REGIONAL DELTA

#### VIA FEDERAL EXPRESS

February 17, 1993

Kathy Persall-Stipek Pierce County Auditor 2401 S. 35th Tacoma, WA 98409

Re: Recording of Covenants

Dear Ms. Stipek:

Enclosed are:

a) Declaration of Restrictive Covenant and

An L-P check for \$10.00 as payment for the , b) recording fee.

We need the Declaration recorded on or before February 19, 1993.

Please return the original Declaration to me after it has been recorded.

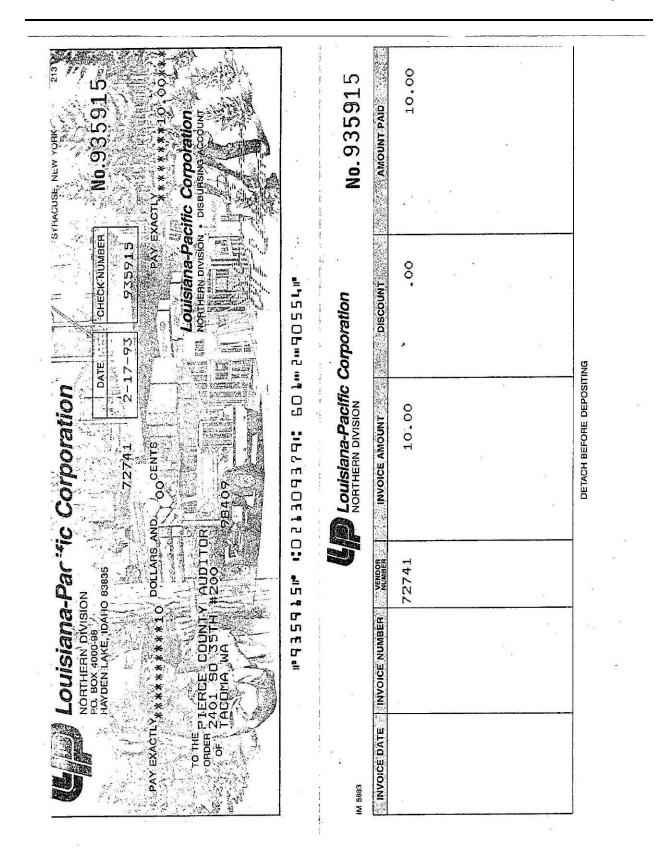
Sincerely,

DPA:pm Enclosure

cc w/enc: Jim Eisses - Hayden Lake Bert Krages - Portland

Garin Schrieve - Department of Ecology

Liz Smith - Samoa





#### ATTACHMENT A

#### DECLARATION OF RESTRICTIVE COVENANT

The property that is the subject of this Restrictive Covenant is 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 Washington State Department of Ecology Order No. DE 92TC-S312, and in attachments to the Order. This Restrictive Covenant is required by WAC 173-340-440 because the Cleanup Action at the Site will result in residual concentrations of arsenic and lead which exceed Ecology's Method A, and C cleanup levels for Industrial soil established under WAC 173-340-745.

Louisiana-Pacific is the fee owner of real property known as the Louisiana-Pacific Tacoma log sort yard in the county of Pierce, state of Washington (legal description attached hereto), hereafter referred to as the "Site."

As a result of the Cleanup Action, the Site will include a woodwaste, soil, and slag mixture which will be covered by an asphaltic concrete or concrete cap. The Site will also include monitoring wells, a storm water drainage system, and a surface water treatment system consisting of a sedimentation basin or comparable treatment unit and an oil/water separator or comparable treatment unit.

Louisiana-Pacific Corporation makes the following declaration as to limitations, restrictions, and uses to which the 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 Site.

Section 1 The Site may be used only for Industrial uses as defined in and allowed under the City of Tacoma's Zoning Regulations codified in the Tacoma City Code as of the date of this Restrictive Covenant. Except as provided in Section 4 of this Covenant.

Section 2 Any activity on the Site that may interfere with or reduce the effectiveness of the Cleanup Action or any operation, maintenance, monitoring, or other activity required by the Order (or any Ecology-approved modification or amendment to the Order) is prohibited. Any activity on the Site that may result in the release of a hazardous substance that was contained as a part of the Cleanup Action is prohibited. The Ecology project coordinator must be informed in writing two weeks prior to any site activity which might be inconsistent with this section.

Section 3 The owner of the 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 Site. No conveyance of title, easement, lease, or other interest in the Site shall be consummated by the owner without adequate and complete provision for the continued operation, maintenance, and monitoring of the Cleanup Action.

Section 4 The owner must notify and obtain approval from the Department of Ecology, or from a successor agency, prior to any use of the Site that may be 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 comments.

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

Section 6 The owner of the Site and owner's assigns and successors in interest reserve the right under WAC 173-340-730 and WAC 173-340-440 to record an instrument which provides that this Restrictive Covenant shall no longer limit the use of the 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 of a 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.

Louisiana-Pacific Corporation agrees to file this Restrictive Covenant in the Site property deed with the Pierce County Auditor and provide the Department of Ecology with a signed copy.

(Name)

Vice President

(Title)

Louisiana-Pacific Corporation

State of Idaho

	)ss.
County of Kootenai	
James Eisses is the acknowledged that he was authorized to ex-	I know or have satisfactory evidence that person who appeared before me, and said perso signed this instrument, on oath stated that hecute the instrument and acknowledged it as thousiana-Pacific Corporation to be the free an
voluntary act of suc	ch party for the uses and purposes mentioned i
the instrument.	
Dated: 3,0, 19 1993	, .
24041	<del></del>
	in the continue
	(Signature)
(SEAL)	
	Same and the
	Title My appointment

#### LEGAL DESCRIPTION

PARCEL "A"

Commencing at the Southeast corner of Section 36, Township 21 North, Range 3 East of the Willamette Meridian; thence Westerly along the South line of said Section 36 a distance of 865.49 feet to the Northwesterly right of way line of Hylebos Access Road; thence on an angle to the right of 128°32'54", Northeasterly along the said right of way line a distance of 225.38 feet to the true point of beginning of this description; thence continuing Northeasterly along said right of way a distance of 457.06 feet to the P.C. of a curve to the left having a radius of 904.93 feet; thence along said curve to the left through a central angle of 5°00'36" a distance of 79.13 feet; thence Northwesterly on a line parallel with and 100.00 feet measured at a right angle from the Southerly pierhead line of Hylebos Waterway extended Southeasterly, and also more or less along the center line of Hylebos Creek Channel as now located, to a point on the Easterly pierhead line of the Hylebos Waterway turning basin; thence on an angle to the left of 90° a distance of 100.00 feet along the said Easterly pierhead line to intersect the said Southerly pierhead line of said waterway; thence on an angle to the right of 90° along the said Southerly pierhead line a distance of 163.01 feet to a point on the South line of the Northwest quarter of the Southeast quarter of said Section 36; thence continuing Northwesterly along the Hylebos Waterway pierhead line a distance of 250.0 feet; thence on an angle to the left of  $90^{\circ}$  a distance of 815.94 feet to a point on the Northerly right of way line of Taylor Way; thence on an angle to the left of 91°04'32" along the said right of way line a distance of 1,226.11 feet to intersect a curve to the left having a radius of 348.27 feet, said radius point being on an angle to the left of 99°57'44" from the said point of intersection; thence along said arc to the left through a central angle of 81°48' a distance of 497.21 feet to the true point of beginning.

Situate in the City of Tacoma, County of Pierce, and State of Washington.

# 6.4 Memorandum of Understanding

### MEMORANDUM OF UNDERSTANDING

Former Log Yard Groundwater Monitoring and Cap Inspection

This Memorandum of Understanding (MOU) is entered into this 2 day of September 2011 between the Washington State Department of Ecology ("Ecology") and the Port of Tacoma ("Port") (collectively the "Parties") to memorialize the Parties' agreement to modify the requirements for future groundwater monitoring and cap inspection frequencies for five Port sites, as set forth below.

These sites affected by this agreement are Cascade Timber No. 3, Murray Pacific No. 2, Wasser Winters, Portac, and Louisiana-Pacific (aka Pony Lumber) ("Monitored Sites").

Each Monitored Site was cleaned up under an administrative agreement between Ecology and the Port, either as an original party or successor interest, as follows: Cascade Timber No. 3, Murray Pacific No. 2, and Wasser Winters were cleaned up under Consent Decrees, Louisiana-Pacific under an Enforcement Order, and Portac under a pre-Model Toxics Control Act (MTCA) Order On Consent (cumulatively referred to as: "Ecology Orders"). Portac, Inc. was also a respondent to the Portac Order on Consent along with the Port.

Each Monitored Site addressed similar contaminants of concern (COCs), which included arsenic, copper, lead, and zinc. However, each Ecology Order had site-specific requirements with respect to cleanup levels, and cap and groundwater monitoring frequencies.

In Spring 2010, the Port initiated a request to Ecology to standardize the monitoring requirements for the Monitored Sites in an effort to align the timing of the periodic monitoring/inspections at the sites so that the Port may better align a contractor to do the work all at once, as required.

In August 2010, to supplement the information already provided to Ecology, the Port provided Ecology with a tour of the Monitored Sites. As part of the tour, Ecology inspected the type and condition of the caps; the current site uses, specifically on the capped areas, and the locations and conditions of existing monitoring wells and stormwater basins.

Ecology has reviewed the information provided by the Port, as well as observations made during the site tour, and has chosen to provide a response in the form of this MOU.

This MOU was created for the Parties to understand and agree upon the requirements associated with Ecology's response, and to memorialize the decisions made with respect to each of the Port's requests.

In preparing this MOU, Ecology took into account, for each site, the type and condition of the cap and stormwater collection system, the adequacy of the groundwater monitoring system, and the recent groundwater compliance history.

Based on the above, Ecology and the Port agree as follows:

#### A. CAP MONITORING FREQUENCY

- 1. The Port may standardize the cap monitoring (inspection and reporting) frequency for the Monitored Sites to 30 months as requested. However, the following shall also occur:
  - During the site tours, Ecology noted that some of the stormwater basins were in better
    condition than others. Stormwater basins at each of the Monitored Sites should be
    inspected quarterly and cleaned out as needed, such that they are continuously
    operational.
  - Any unanticipated breaches of the cap for any of the Monitored Sites shall be
    reported to Ecology and repaired as soon as practicable. As per the respective
    Ecology Orders, the Port shall provide Ecology with a plan for each of the sites that
    summarizes intended action and reporting by the Port for unanticipated cap breaches.
  - Advance notice shall be provided and prior approval shall be obtained from Ecology for any planned cap breaches and repairs that are not otherwise permitted under the respective Ecology Order for each Monitored Site.
  - Minor cracking and normal wear and tear shall be repaired and reported as anticipated by and according to each Monitored Site's Ecology Order.
  - The appropriate Ecology Site Manager shall be informed, in writing, of any changes in site use on capped areas.
- 2. The next cap monitoring for the Monitored Sites based on this new 30-month frequency shall be February 2012, which corresponds to the next 30-month groundwater monitoring event for Wasser Winters described below. Unless changed by Ecology, all future cap monitoring for the Monitored Sites shall occur every 30 months beginning February 2012 to coincide with the groundwater monitoring that is intended to target alternating wet and dry seasons.

### B. GROUNDWATER MONITORING FREQUENCY

- 1. The Port may standardize the groundwater monitoring frequency for each of the Monitored Sites as requested, which included the following:
  - Cascade Timber No. 3 18 months (formerly 12 months).
  - Murray Pacific No. 2 18 months (formerly 6 months).
  - Wasser Winters No change (currently 30 months).
  - Portac No change (currently discontinued).
  - Louisiana-Pacific 30 months (formerly 24 months wet/dry).

2. The next groundwater monitoring for the Monitored Sites shall be conducted in February 2012. Unless changed by Ecology, all future groundwater monitoring for the Monitored Sites shall occur according to the frequency identified above beginning February 2012.

#### C. EFFECT OF MODIFICATION

- 1. Except as modified herein, all provisions of the Original Ecology Orders for each Monitored Site as existing and as may have been amended, including addressing any potential data compliance issues, remain in full force and effect.
- 2. A copy of this MOU shall be filed with the Ecology Project Manager for each of the Monitored Sites.

Rebecca S. Lawson, P.E., LHG

Southwest Regional Office

Section Manager, Toxics Cleanup Program

Washington State Department of Ecology

Chief Executive Officer

Port of Tacoma

Date

cc:

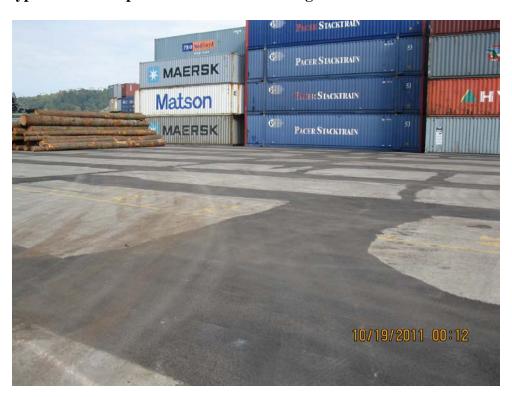
Jason Jordan – Port of Tacoma
Mark Rettmann – Port of Tacoma
William Evans – Port of Tacoma
Leslee Connor – Port of Tacoma
Scott Hooton – Port of Tacoma
Dom Reale – Ecology
Marv Coleman – Ecology
Guy Barrett – Ecology
James DeMay – Ecology
Scott Rose – Ecology
Rebecca Lawson – Ecology

# 6.5 Photo log

Photo 1: Cap Area and Lumber Storage Area - from the northeast



Photo 2: Typical Crack Repair and Containers Storage Area – from the east



10/19/2011 00:15



**Photo 3: Development of Cracks on the Cap** 



