Environmental Health Services Division
401 Fifth Avenue, Suite 1100
Seattle, WA 98104-1818
206-205-4394 Fax 206-296-0189
TTY Relay: 711
www.kingcounty.gov/health

Public Health
Seattle & King County

April 1, 2010

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JUN 02 2010
DEPT. OF ECOLOGY

Rod DeWalt, President
Douglas Management Company
18000 International Blvd., Suite 800
Seattle, WA 98188-4255

RE: Ecology Facility Site ID # 97573251

Dear Mr. DeWalt:

Public Health-Seattle & King County has completed the site hazard assessment (SHA) of the Douglas Management Dock site, as required under the Model Toxics Control Act. This site's hazard ranking, an estimation of the potential threat to human health and/or the environment relative to all other Washington state sites assessed at this time, has been determined to be a 5, where 1 represents the highest relative risk and 5 the lowest.

For your information, Ecology will be publishing the ranking of this and other recently assessed sites in the August 18, 2010 Special Issue of the Site Register. The site hazard ranking will be used in conjunction with other site-specific considerations in determining Ecology's priority for future actions.

Please contact me at (206) 263-8447 if you have any questions relating to the SHA of your site. For inquiries/comments about the scoring/ranking of your site; or further activities by Ecology now that it is on Ecology's Hazardous Sites List, please call Donna Musa at (425) 649-7136.

Sincerely,

Carsten Thomsen
Health and Environemental Investigator III

CT:sf

cc: Donna Musa, Washington Department of Ecology
Ted Benson, Washington Department of Ecology

STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY
PO Box 47600 • Olympia, WA 98504-7600 • 360-407-6000
TTY 711 or 800-833-6388 (for the speech or hearing impaired)

November 12, 2009

Rod DeWalt, President
Douglas Management Company
18000 International Blvd., Suite 800
Seattle, WA 98188-4255

Subject: Site Hazard Assessment – **Douglas Management Dock**
Ecology Facility Site ID: 97573251

Dear Mr. DeWalt:

The Department of Ecology (Ecology) will conduct a site hazard assessment (SHA) of the Douglas Management Dock facility,7100 Second Avenue SW, Seattle, WA, under the Model Toxics Control Act (MTCA), Chapter 173-340-320 WAC. This site has been on Ecology's Confirmed and Suspected Contaminated Sites List, awaiting assessment, since December 14, 1992.

The SHA will be performed by Mr. Carsten Thomas of the King County Public Health District. He can be reached at (206) 263-8447, or through e-mail at carsten.thomsen@kingcounty.gov.

The purpose of an SHA is to gather information on past/present waste management activities, along with other basic site-specific environmental data, in order to score the site following the Washington Ranking Method (WARM) Scoring Manual guidelines. Potential/actual threats to human health and the environment are evaluated for each applicable migration route, with a resultant "hazard ranking" for the site determined.

Sites are ranked on a scale of one to five, with one representing the highest level of concern, and five the lowest, relative to all other assessed/ranked sites in the state. The level of relative concern may be such that a recommendation of "No Further Action" (NFA) is made, and your site will then be removed from Ecology's Site Information System (SIS) list.

For your information, Ecology will publish a notice in an upcoming issue of the *Site Register* that an SHA has been scheduled for this site. This notice may evoke media inquiries. Likewise, the outcome of the SHA, either as a ranked site or a determination as NFA, will be published in the *Site Register*.

In addition to any required fieldwork, the following information will be considered in scoring this site:

- Ecology Northwest Regional Office Site Files
- King County Health District Files

Following review of current Ecology regional office files, the next step in this assessment process will be to determine if any new site-specific information can be provided by the site owner/operator.

Additional data could include any environmental assessments or laboratory analyses which have been conducted regarding this site and which have not previously been submitted to Ecology. Every attempt will be made to obtain the most recent and accurate data for scoring your site. If you have better information or comments on the adequacy of the data we already have, please let us know as soon as possible. The final site rank and eventual site priority will be based primarily on the information used in the scoring. Your active participation in the assessment and scoring process is important to insure that only the best data available is used.

Fact sheets describing Site Hazard Assessments, the Washington Ranking Method and the Hazardous Sites List are enclosed for your information. If you have any questions please call me at (360) 407-6683.

Sincerely,

Ted H. Benson
Site Hazard Assessments
Toxics Cleanup Program

THB:tb
Enclosures (3)

cc: Donna Musa, Ecology Northwest Regional Office
Carsten Thomas, King County Health District

SITE HAZARD ASSESSMENT

WORKSHEET 1

Summary Score Sheet

SITE INFORMATION:

Douglas Management Dock
7100 2nd Avenue SW
Seattle, King County, WA 98106-1926

Section/Township/Range: 30/ 24N/ 04E
Latitude: 47° 32' 26.16"
Longitude: 122° 20' 12.26"
Ecology Facility Site ID No: 97573251

March 4, 2010

Site Description

The Douglas Management Dock property is a large industrial site covering approximately three and one half acres. Except for some river bank area the site is covered with asphalt and concrete. The surrounding area consists mostly of large industrial complexes, commercial businesses and a few private residences. The property is bordered to the northeast by the Lower Duwamish Waterway, on the south by a river inlet and on the west by First Avenue S. The area is served by municipal sewer and water systems. There is no documented use of groundwater for private or municipal wells for either drinking water or irrigation purposes within a two-mile radius.

Background

In December 2000 the Washington Department of Ecology (Ecology) and the Environmental Protection Agency (EPA) signed an agreement with King County, the Port of Seattle, the City of Seattle and the Boeing Company to conduct a Remedial Investigation/Feasibility Study (RI/FS) to assess potential risks to human health and the environment related to the Lower Duwamish Waterway (LDW).

The EPA added the LDW to its National Priorities List on September 13, 2001. This is EPA's list of hazardous waste sites that warrant further investigation and cleanup under Superfund regulations. Ecology added the site to the Washington State Hazardous Sites List on February 26, 2002.

The LDW was divided into sections to help address the assessment of the area. The Douglas Management Dock property is located within the Early Action Area 2 (EAA-2). EAA-2 is located approximately 2.2 miles from the south end of Harbor Island on the west side of the LDW Superfund site, south of the First Avenue S. Bridge. The EAA-2 consists of a small inlet, approximately 80 feet wide at its mouth and tapering to a narrow stream at its head. The Douglas Management Dock property is located on the north side of the inlet.

The inlet was once part of a large tidal marsh that encompassed the lower 6 miles of the Duwamish River. The current location of the Douglas Management Dock site was part of the Duwamish Turning Basin No. 2 and was filled in sometime between 1960 and 1969. Since that time the site has been used for shipbuilding and salvage, handling of containerized marine freight, parking, equipment storage and the operation of a concrete batch plant which included a concrete waste disposal facility with settling and storage basins. The site is currently being used for the storage of shipping containers.

In 1990, contamination was found on the property including groundwater contaminated with benzene, toluene, xylene and diesel above the Model Toxics Control Act (MTCA) Method A cleanup levels. Several underground storage tanks were removed from the site in 1991.

During 2007 Ecology contracted with an environmental consulting firm (SAIC) to perform further assessment of the Douglas Management Dock property. During the summer of 2008, SAIC installed 5 monitoring wells to collect groundwater samples for analysis. During the boring of the monitoring wells soil samples were also collected at the site for analysis. Results of the analysis showed that the site was contaminated with a variety of substances above the MTCA Method A cleanup levels. These substances included arsenic, lead, gasoline and polychlorinated biphenyls (PCBs).

During the fall of 2009, Ecology requested that Carsten Thomsen of Public Health-Seattle & King County conduct a Site Hazard Assessment (SHA) of the Douglas Management Dock site. The SHA ranking of the property was based on assessment reports provided by Ecology's Source Control group.

SPECIAL CONSIDERATIONS **(include limitations in site file data or data which cannot be accommodated in the model, but which are important in evaluating the risk associated with the site, or any other factor(s) over-riding a decision of no further action for the site): N/A**

ROUTE SCORES:

Surface Water/Human Health: 2.5
Air/Human Health: 4.2
Groundwater/Human Health: 21.2

Surface Water/Environmental.: 5.7
Air/Environmental: 3.2

OVERALL RANK: 5

WORKSHEET 2
Route Documentation

1. **SURFACE WATER ROUTE** Source:2

   a. List those substances to be considered for scoring:

      Arsenic, Lead, TPH-G, PCBs

   b. Explain basis for choice of substance(s) to be used in scoring.

      Analytical results from soil and groundwater sampling indicate the presence of these hazardous substances at levels which exceed our current Method A cleanup levels.

   c. List those management units to be considered for scoring: Source 2

      Surface and subsurface soils

   d. Explain basis for choice of unit to be used in scoring:

      Spills/discharges caused soil contamination

2. **AIR ROUTE** Source:2

   a. List those substances to be considered for scoring:

      Arsenic, Lead, TPH-G, PCBs

   b. Explain basis for choice of substance(s) to be used in scoring:

      Analytical results from soil and groundwater sampling indicate the presence of these hazardous substances at levels which exceed our current Method A cleanup levels.

   c. List those management units to be considered for scoring: Source:2

      Surface and subsurface soils

   d. Explain basis for choice of unit to be used in scoring:

      Spills/discharges caused soil contamination

3. GROUNDWATER ROUTE

Source:2

a. List those substances to be considered for scoring:

Arsenic, Lead, TPH-G, PCBs

b. Explain basis for choice of substance(s) to be used in scoring:

Analytical results from soil and groundwater sampling indicate the presence of these hazardous substances at levels which exceed our current Method A cleanup levels.

Source:2

c. List those management units to be considered for scoring:

Surface and subsurface soils

d. Explain basis for choice of unit to be used in scoring

Spills/discharges caused soil contamination

WORKSHEET 3
Surface Water Route

1.0 SUBSTANCE CHARACTERISTICS

1.2 Human Toxicity

	Substance	Drinking Water Standard (µg/L)	Value	Acute Toxicity (mg/ kg-bw)	Value	Chronic Toxicity (mg/kg/day)	Value	Carcinogenicity		Value
								WOE	PF*	
1	Arsenic	10	8	763	5	0.001	5	A	1.75	7
2	PCBs	0.5	10	1315	3	ND	-	B2	7.7	6
3	Lead	5	8	ND	-	0.001	10	ND	ND	-
4	TPH-G	5.0	8	3306	3	ND	-	A	.029	5

Source: 2

* *Potency Factor*

Highest Value: 10
(Max = 10)

Plus 2 Bonus Points2

Final Toxicity Value: 12
(Max = 12)

1.2 Environmental Toxicity – Fresh Water

	Substance	Acute Water Quality Criteria		Non-Human Mammalian Acute Toxicity	
		(µg/L)	Value	(mg/kg)	Value
1	Arsenic	360	4		
2	PCBs	2.0	8		
3	Lead	82	6		
4	TPH-G	5300	2		

Source:1

Highest Value: 8
(Max = 10)

1.3 Substance Quantity

Explain Basis: Unknown quantity, default to 1.

Source:2
Value: 1
(Max = 10)

2.0 MIGRATION POTENTIAL

		Source	Value
2.1	**Containment:** Subsurface contamination **Explain basis:**	2	**0** (Max = 10)
2.2	**Surface Soil Permeability:** silt/sand/gravel	2	**1** (Max = 7)
2.3	**Total Annual Precipitation:** SeaTac = 35.0	5	**3** (Max = 5)
2.4	**Max 2yr/24hr Precipitation:** 1-2 inches	5	**2** (Max = 2)
2.5	**Flood Plain:** 100-year flood plain	8	**2** (Max = 2)
2.6	**Terrain Slope:** Site adjacent to water body	2	**5** (Max = 5)

3.0 TARGETS

		Source	Value
3.1	**Distance to Surface Water:** 0 feet	2	**10** (Max = 10)
3.2	**Population Served within 2 miles (see WARM Scoring Manual Regarding Direction):** 0	8	**0** (Max = 75)
3.3	**Area Irrigated by surface water within 2 miles : 0**	8	**0** (Max = 30)
3.4	**Distance to Nearest Fishery Resource:** Duwamish River 0 ft.	2	**12** (Max = 12)
3.5	**Distance to, and Name(s) of, Nearest Sensitive Environment(s):** Duwamish River 0 ft.	2	**12** (Max = 12)

4.0 RELEASE

Explain Basis: No documented release	Source:2 **Value: 0** (Max = 5)

WORKSHEET 4
AIR ROUTE

1.0 SUBSTANCE CHARACTERISTICS

1.1. Introduction (WARM Scoring Manual) – Please review before scoring

1.2 Human Toxicity

	Substance	Air Standard ($\mu g/m^3$)	Value	Acute Toxicity (mg/m^3)	Value	Chronic Toxicity (mg/kg/day)	Value	Carcinogenicity WOE	Carcinogenicity PF*	Value
1	Arsenic	0.00023	10	ND	-	ND	-	A	50	9
2	PCBs	ND	-	ND	-	ND	-	B2	ND	-
3	Lead	0.5	10	ND	-	ND	-	ND	ND	-
4	TPH-G	0.12	10	31947	3	ND	-	A	0.029	5

Source:2

** Potency Factor*

Highest Value: 10
(Max = 10)

Plus 2 Bonus Points +2

Final Toxicity Value: 12
(Max = 12)

1.3 Mobility (Use numbers to refer to above listed substances)

1.3.1 Gaseous Mobility		1.3.2 Particulate Mobility		
Vapor Pressure(s) (mmHg)		Soil Type	Erodibility	Climatic Factor
1-Arsenic		Sandy Loam	86	1-10
2-PCBs				
3-Lead				
4-TPH-G	Value=4			

Source:1

Value: 4
(Max = 4)

1.4 Highest Human Health Toxicity/ Mobility Matrix Value (from Table A-7)

Final Matrix Value: 24
(Max = 24)

1.5 Environmental Toxicity/Mobility						
	Substance	Non-human Mammalian Inhalation Toxicity (mg/m^3)	Acute Value	Mobility (mmHg)	Value	Matrix Value
1	Arsenic	ND	-		-	
2	PCBs	ND	-		-	
3	Lead	ND	-		-	
4	TPH-G	31947(rat)	3	905E+01	4	6

Highest Environmental Toxicity/Mobility Matrix Value (from Table A-7) = **Final Matrix Value: 6**
(Max = 24)

1.6 Substance Quantity	
Explain Basis: Unknown, use default value = 1	Source:2 **Value: 1** (Max = 10)

2.0 MIGRATION POTENTIAL

		Source	Value
2.1	**Containment:** Contaminated sub-surface soil, with cover >2 ft thick	2	**0** (Max = 10)

3.0 TARGETS

		Source	Value
3.1	**Nearest Population:** < 1000'	2	**10** (Max = 10)
3.2	**Distance to [and name(s) of] nearest sensitive environment(s):** Wetlands Park 825 ft.	2	**7** (Max = 7)
3.3	**Population within 0.5 miles:** 1213, sq rt 1213=35	9	**35** (Max = 75)

4.0 RELEASE

Explain Basis: No documented release to air.	Source:2 **Value: 0** (Max = 5)

WORKSHEET 5

Groundwater Route

2.0 SUBSTANCE CHARACTERISTICS

1.2 Human Toxicity

	Substance	Drinking Water Standard (µg/L)	Value	Acute Toxicity (mg/ kg-bw)	Value	Chronic Toxicity (mg/kg/day)	Value	Carcinogenicity		Value
								WOE	PF*	
1	Arsenic	10	8	763	5	0.001	5	A	1.75	7
2	PCBs	0.5	10	1335	3	ND	-	B2	7.7	6
3	Lead	5	8	ND	-	0.001	10	ND	ND	-
4	TPH-G	5.0	8	3306	3	ND	-	A	.029	5

* *Potency Factor*

Source:2

Highest Value: 10
(Max = 10)

Plus 2 Bonus Points? +2

Final Toxicity Value: 12
(Max = 12)

1.2 Mobility (use numbers to refer to above listed substances)

Cations/Anions [Coefficient of Aqueous Migration (K)] OR	Solubility (mg/L)
1= Value=3	1=
2=	2=
3= Value=2	3=
4=	4= Value=3

Source1

Value: 3
(Max = 3)

1.3 Substance Quantity (volume):

Explain basis: Unknown quantity, default to 1	Source:2 **Value: 1** (Max=10)

3.0 MIGRATION POTENTIAL

		Source	Value
2.1	**Containment (explain basis):** Contaminated soil, covered w/asphalt	2	**5** (Max = 10)
2.2	**Net precipitation:** 24.5"-5.2" = 19.2"	5	**2** (Max = 5)
2.3	**Subsurface hydraulic conductivity:** sandy silt	2	**3** (Max = 4)
2.4	**Vertical depth to groundwater:** Soil boring on site found groundwater < 25 feet bgs	2	**8** (Max = 8)

4.0 TARGETS

		Source	Value
3.1	**Groundwater usage: Not usable**	8	**1** (Max = 10)
3.2	**Distance to nearest drinking water well:** >10,000 feet	8	**0** (Max = 5)
3.3	**Population served within 2 miles: √ pop.=** sq rt 0=0	9	**0** (Max = 100)
3.4	**Area irrigated by (groundwater) wells within 2 miles: (0.75)*√# acres =** 0.75 * √0 = 0	6	**0** (Max = 50)

5.0 RELEASE

	Source	Value
Explain basis for scoring a release to groundwater: Documented release to groundwater	2	**5** (Max = 5)

SOURCES USED IN SCORING

1. Washington ranking Method Toxicological Data-Base
2. Lower Duwamish Waterway Early Action Area 2, Summary of Additional Site Characterization Activities: Trotsky and Douglas Management Company Properties, SAIC Corporation, May 2009
3. Site Hazard Assessment, PHSKC, 10/09
4. National Weather Service Data
5. Washington State Department of Health Public Water Supply Listing
6. Washington State Water Use Data
7. King County GIS Center Data, April 2007
8. 2000 Census Data, King County GIS Center
9. Washington Department of Ecology, Warm Scoring Manual