

Worksheet 1 - Summary Score Sheet

SITE INFORMATION

Name: Purdy Landfill

Address: 14515 54th Avenue Northwest

City: Gig Harbor, **County:** Pierce, **State:** W **Zip:** 98332-9106

Section/Township/Range: 13/22N/1E **Latitude:** 47-23-14.32 **Longitude:** 122-36-34.74

TCP ID Number: S-27-0076-000

Site assessed/ranked for the August 28,2001 update

Site Description (Include management areas, substances of concern, and quantities):

The Purdy Landfill encompasses 12 acres of a 100 acre parcel and is located on the north side of 144th Street NW, east of SR 16, adjacent to the town of Purdy. It is located less than one mile east of Burley Lagoon.

The Purdy Landfill was used for waste disposal from 1941 to 1989. The landfill was closed in 1989 in accordance with the Minimum Functional Standards (MFS) for Solid Waste Handling. After closure, the site was used as a transfer station servicing the surrounding area. Today, it operates as a transfer station and a composting facility.

An engineering firm Sweet-Edwards/EMCON, Inc. was hired to test various parameters involved with closing the landfill. Eleven groundwater monitoring wells were installed around the perimeter of the landfill and sampled routinely for VOC's and indicator parameters. Today, five of the wells continue to be sampled, one upgradient well, three downgradient wells, and one well possibly impacted by leachate. One of the down gradient wells (MW-5) consistently exceeds the MTCA Method A Cleanup Levels for Vinyl Chloride. Vinyl Chloride was detected at 0.6 ppb in the first quarter of 2000. The cleanup level is 0.2 ppb. In addition to Vinyl Chloride, cis 1,2 dichloroethylene and dichlorodifluoromethane were detected in Monitoring well 10. Bis 2-ethylhexylphthalate has been detected in Monitoring well 4, 5, 6, and 7.

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):

Only the groundwater was scored due to subsurface contamination.

ROUTE SCORES:

Surface Water/Human Health: NS

Surface Water/Environ. NS

Air/Human Health: NS

Air/ Environmental: NS

Ground Water/Human Health: 43.4

OVERALL RANK:

3

Worksheet 2--Route Documentation

This route not to be scored

1. SURFACE WATER ROUTE

- a. List those substances to be considered for scoring: Source: _____
- b. Explain basis for choice of substances(s) to be used in scoring:
- c. List those management units to be considered for scoring: Source: _____
- d. Explain basis for choice of unit to be used in scoring:

This route not to be scored

2. AIR ROUTE

- a. List those substances to be considered for scoring: Source: _____
- b. Explain basis for choice of substances(s) to be used in scoring:
- c. List those management units to be considered for scoring: Source: _____
- d. Explain basis for choice of unit to be used in scoring:

Worksheet 2 (con'td)

3. GROUND WATER ROUTE

- a. List those substances to be considered for scoring: Source: 1,2

Vinyl Chloride, cis 1,2 dichloroethylene, dichlorodifluoromethane, bis 2-ethylhexylphthalate

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

The above listed substances will be scored for the groundwater route due to their presence in groundwater. Vinyl Chloride exceeded the MTCA Method A Cleanup level.

- c. List those management units to be considered for scoring: Source: 3

Contaminated groundwater

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

Contaminated groundwater verified by sampling/analysis

Worksheet 6 – Ground Water Route

1.0 SUBSTANCE CHARACTERISTICS

1.1 Human Toxicity									
Substance	Drinking Water Standard (ug/l)		Acute Toxicity (mg/kg-bw)		Chronic Toxicity (mg/kg/day)		Carcinogenicity WOE PF*		
	Val	Val	Val	Val	Val	Val	Val	Val	Val
1	Vinyl Chloride	2	8	500 (rat)	5	--	ND	2.3	7
2	cis 1,2 dichloroethylene	70	6	--	ND	0.01	3	--	3
3	dichlorodifluoromethane	1000	4	--	ND	0.2	1	--	ND
4	bis 2-ethylhexylphthalate	--	ND	30600 (rat)	1	0.02	1	0.014	4
5									
6									

***Potency Factor**

Source: 1-4
Highest Value: 8
 (Max = 10)
Plus 2 Bonus Points? 0

Final Toxicity Value: 8
 (Max = 12)

1.2 Mobility (Use numbers to refer to above listed substances)	
Gastions/Anions:	OR Solubility (mg/l):
1=	1= Vinyl Chloride=3
2=	2= cis 1,2 dichloroethylene=3
3=	3= dichlorodifluoromethane=2
4=	4= bis 2-ethylhexylphthalate=0
5=	5=
	Source: <u>4</u> Value: <u>3</u> (Max = 3)
1.3 Substance Quantity: <u>Unknown</u>	
Explain basis: Unknown, Use default 1	Source: <u>2,3</u> Value: <u>1</u> (Max = 10)

Worksheet 6 (cont'd)

2.0 MIGRATION POTENTIAL

2.1	Containment Explain Basis: <u>Landfill. No liner=3; Compacted soil, but with poor or unknown maintenance performed =1; No leachate collection system=2; Free liquids (sewer sludge) disposed in landfill=3=9</u>	Source: <u>2,3</u>	Value: 9 (Max = 10)
2.2	Net Precipitation: <u>Bremerton Station (Total November- April) 29.7 -5.6 (evapo)=24.1 inches</u>	Source: <u>10</u>	Value: 3 (Max = 5)
2.3	Subsurface hydraulic conductivity: <u>gravelly, sandy, loam</u>	Source: <u>2,6</u>	Value: 3 (Max = 4)
2.4	Vertical depth to ground water: <u>closest well static water level is 181' deep Olympic Sunset West- Group A, Well depth is 316'</u>	Source: <u>1,2,8</u>	Value: 3 (Max = 8)

3.0 TARGETS

3.1	Ground Water Usage: <u>Public and private supply, alternate sources available with minimum hook-up</u>	Source: <u>3,7-9</u>	Value: 4 (Max = 10)
3.2	Distance to nearest drinking water well: <u>1750' to Olympic Sunset West Group A well</u>	Source: <u>12</u>	Value: 3 (Max = 5)
3.3	Population served within 2 miles: $\sqrt{\text{pop.}} = \sqrt{8676} = 93$ Ind Wells 57 + Grp A 8344 + Grp B 56 = 8676	Source: <u>8,9,12</u>	Value: 93 (Max = 100)
3.4	Area Irrigated by (groundwater) wells within 2 miles: $(0.75) \sqrt{230 \text{ No. acres}} = 15.17 (.075)=11$	Source: <u>7</u>	Value: 11 (Max = 50)

3.0 RELEASE

Explain basis for scoring a release to ground water: <u>Contaminants detected in Monitoring wells</u>	Source: <u>1</u>	Value: 5 (Max = 5)
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