CSID 3380

WORKSHEET 1
SUMMARY SCORE SHEET

Site Name/Location (Street, City, County, Section/Township/Range, TCP ID Number):

WA DNR Webster Nursery
9805 Blomberg St. SW
Tumwater,
Thurston County, WA 98512-1044

Lat. 46° 56' 53.8"
Long. 122° 57' 2.7"

S-20, T-17N, R-2W
TCP ID S-34-6212-000

8786341

Site scored/ranked: February 16, 1999 update

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

The Webster Nursery site comprises two noncontiguous parcels in Thurston County, near Olympia, Washington. The main nursery facility is located south of 93rd Avenue SW and comprises an office building, two warehouses, equipment storage, a cold storage building, three pumphouses, a field kitchen, a pesticide storage warehouse, and a pesticide mixing shed. The adjacent greenhouse area consists of two shelters, greenhouses, a service building, cold storage, and an office and lunchroom. The Webster Nursery is irrigated by 13 deep aquifer water supply wells, including seven wells located within the main parcel south of 93rd Avenue SW, three wells located on the nursery property west of Jones Road, and three wells located north of 93rd Avenue SW. A mobile home park and Individual parcels with wells are located directly south of where the pesticide storage warehouse is located.

The pesticide storage warehouse at the Webster Nursery facility was constructed in 1978, at which time the building floor drain systems were built and plumbed directly to a 750-gallon capacity pre-cast concrete holding tank. As designed, the holding tank was installed approximately 8 feet south of the south end of the warehouse structure. As part of the facility upgrades conducted in 1982, DNR elected to remove the concrete holding tank installed when the building was constructed and replace it with a single-walled steel UST. In July 1996, the steel UST was removed. Upon removal, the steel tank was observed to be in good condition, with no visual evidence of corrosion, leaks or damage. However, soil samples were collected from the north, east, southeast, and south side walls, and from the bottom of the open excavation. Two herbicides (2,4,5,T and 2,4D) and three pesticides (chlordane, heptachlor and heptachlor epoxide) were detected at or above the laboratory reporting limit. Upon discovering the release, DNR implemented a soil excavation program which included the emergency removal of approximately 70 cubic yards of contaminated soil. The soil was eventually taken off site to a permitted disposal facility.

Four shallow monitoring wells were installed in August of 1996 to evaluate water quality immediately adjacent to the former UST soil excavation. Further sampling indicated that the groundwater had contamination levels of chlordane (0.073ug/l), heptachlor (0.291 ug/l) and heptachlor epoxide (1.77 ug/l) that exceeded MTCA method B cleanup levels.

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):

The site score only reflects the area within the underground storage tank that contained the pesticides.

Since significant contamination is subsurface; therefore, only the ground water route is applicable for scoring under Washington Ranking Method (WARM).

ROUTE SCORES:

Surface Water/Human Health: NS
Surface Water/Environ.: NS

Air/Human Health: NS
Air/Environmental: NS

Ground Water/Human Health: 51.7

OVERALL RANK: 3

WORKSHEET 2
ROUTE DOCUMENTATION

1. SURFACE WATER ROUTE

List those substances to be considered for scoring: Source: NA

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

List those management units to be considered for scoring: Source:

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

2. AIR ROUTE

List those substances to be considered for scoring: Source: NA

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

List those management units to be considered for scoring: Source:

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

3. GROUND WATER ROUTE

List those substances to be considered for scoring: Source: 5

Chlordane *Heptachlor Epoxide*
Heptachlor

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

The above substances were detected at elevated concentrations in residual subsurface soils within the underground storage tank area.

List those management units to be considered for scoring: Source: 5

Subsurface soils.

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

Analytical results

WORKSHEET 6
GROUND WATER ROUTE

1.0 SUBSTANCE CHARACTERISTICS

1.1 Human Toxicity

Substance	Drinking Water Standard		Acute Toxicity		Chronic Toxicity		Carcinogenicity		
	(ug/l)	Val.	(mg/kg-bw)	Val.	(mg/kg/day)	Val.	WOE	PF*	Val.
1. Chlordane	2	8	200	5	$6x10^{-5}$	10	B2	.000048	3
2. Heptachlor	0.4	10	40	10	0.0005	8	B2	.0004	3
3. Heptachlor epoxide	0.2	10	15	10	--	--	B2	--	--

*Potency Factor

Source: 1
Highest Value: 10
(Max.=10)
+2 Bonus Points? 2
Final Toxicity Value 12
(Max =12)

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

Cations/Anions 1= ; 2= ; Source: 3= ; 4= ; 5= ; 6= Source: 1 Value: 0 (Max.=3)

OR
Solubility(mg/l): 1= $5.6x10^{-1}$; 2= $1.8x10^{-1}$; 3= $3.5x10^{-1}$; 4= ; 5= ; 6=

1.3 Substance Quantity: 70 cubic yards Source: 6 Value: 5 (Max.= 10)

Explain basis: Conversation with DNR

2.0 MIGRATION POTENTIAL

2.1 Containment Source: 5 Value: 10 (Max.= 10)

Explain basis: Contaminated soil from a leaking underground storage tank

2.2 Net Precipitation: 20.06 inches: Source: 5 Value: 3 (Max.= 5)

2.3 Subsurface Hydraulic Conductivity: 1.4×10^{-3} Source: 5 Value: 3 (Max.= 4)

2.4 Vertical Depth to Ground Water: confirmed release feet Source: 5 Value: 8 (Max.= 8)

3.0 TARGETS

3.1 Ground Water Usage: Private supply - alternative source available	Source: 3	Value: 4 (Max.= 10)
3.2 Distance to Nearest Drinking Water Well: 400 ft	Source: 3	Value: 5 (Max.= 5)
3.3 Population Served within 2 Miles: %pop.=2105= 46	Source: 4	Value: 46 (Max.= 100)
3.4 Area Irrigated by (Groundwater) Wells within 2 miles: 0.75%no.acres= 300 0.75%6 =0.75 ( )= 2	Source: 4	Value: 13 (Max.=50)

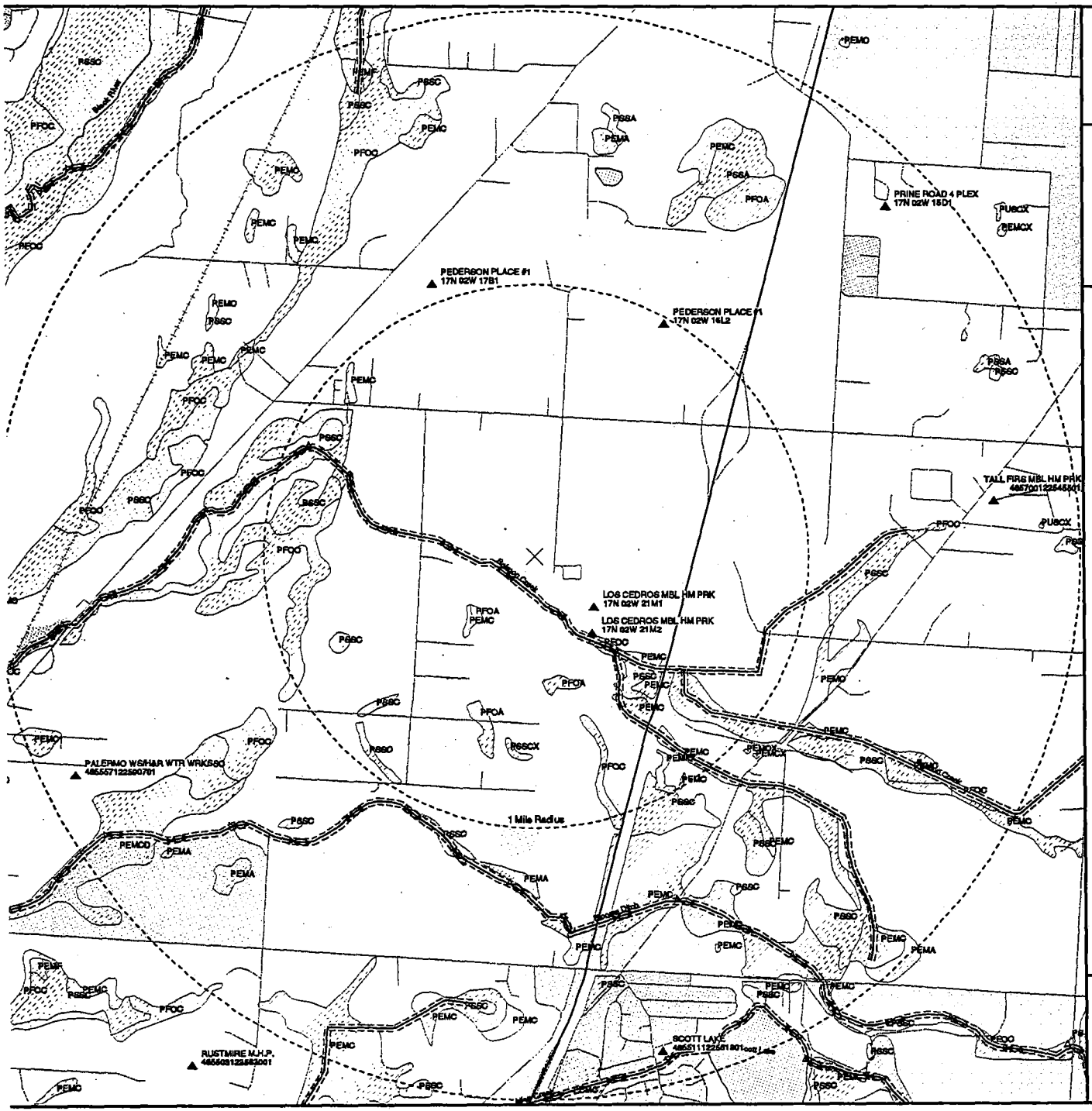
4.0 RELEASE

Explain basis for scoring a release to ground water:	Source: 3,5	Value: 5 (Max.= 5)

Laboratory results

SOURCES USED IN SCORING

1. Washington Department of Ecology Toxicology Database for use in Warm Scoring, January 1992
2. Washington Department of Ecology WARM scoring manual, April 1992
3. Site Hazard Assessment sampling visit by Thurston County Health Department, June 1997
4. U.S. EPA site infor GIS Query for Webster Nursery, January 1999
5. Tetra Tech's Comprehensive Ground Water Investigation, Webster Nursery, February 1998
6. Conversation with John Felder, DNR, December 1998.



Webster Nursery

Unspecified

Lat: 46 56 44 Long: 122 57 2
THURSTON County, WA.

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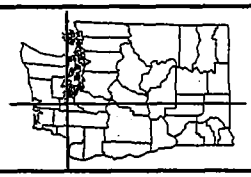
LEGEND

- Public Water Supply EPA SDWIS System
- Public Surface Water Supply Intake
- Hospital
- School
- Major Roads and Highways
- Other Roads
- National Park/Recreation Area
- Wetlands / Washington Area (National Wetland Inventory)
- Stream - Not Classified
- Stream - Low Value For Resident Fish Area
- Stream - Moderate Value For Resident Fish Area
- Stream - Substantial Value For Resident Fish Area
- Stream - Outstanding Value For Resident Fish Area
- Stream - Critical Species or Spawning Area
- Stream - Anadromous Fish Presence
- County Boundary

1990 Population Density Per Sq Mi

Under 10	3,000 - 6,000
10 - 100	6,000 - 10,000
100 - 1,000	10,000 - 20,000
1,000 - 3,000	Over 20,000

0 0.1 0.2 0.3 0.4 0.5 0.6 0.7 0.8 0.9 1
Miles
Albers Projection



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