WORKSHEET 1
Summary Score Sheet

SITE INFORMATION:

Name: **Brinnon General Store**
Address: **306413 U.S. Hwy 101**
City: **Brinnon** County: **Jefferson** State: **WA** Zip: **98320**
Section/Township/Range: **S35/ T26N/ R02W**
Latitude: **47.6937** Longitude: **-122.8975**
FS ID #: **96498799**

Site scored/ranked for the February 2011 update.

SITE DESCRIPTION (management areas, substances of concern, and quantities):

The Brinnon General Store site is located at 306413 U.S. Highway 101 in Brinnon, Jefferson County, Washington (WA). The 2.1-acre site is located along the Hood Canal less than 1000ft from the water, which is a shellfish protection area. The area consists of light commercial and rural residential properties. The site currently consists of a combination convenience store/self service vehicle fueling station, a manufactured home, and two storage sheds. The convenience store building is an approximately 3,000-square-foot rectangular-shaped structure. Two 8,000-gallon dual compartment (5,000/3,000) coated steel underground storage tanks (USTs) are located on site. Three of the tank compartments are used for the storage of various grades of unleaded gasoline, while the other compartment is used for the storage of diesel fuel. The USTs are serviced by submersible pumps and remote fuel dispensers. The fuel dispensing/pump island is located directly west of the convenience store, and the USTs are located directly north of the pump island.

In 1989, three 1,000-gallon USTs containing leaded and unleaded gasoline were excavated and removed from the site by Mickelson Construction of Olympia, WA. A limited amount of information is available regarding the UST removal activities. It is known that a confirmed release of gasoline to soil and groundwater on site took place. Based on available information, a remediation project reportedly removed all accessible petroleum-impacted soils from the UST excavation area with dig and haul methodology. It is believed that an unknown quantity of soil was left in place along the southern perimeter of the excavation so as not to negatively impact the structural integrity of the convenience store building. An unknown quantity of excavated gasoline-impacted soil was stockpiled on a vacant parcel located directly west of the site, across Highway 101. This parcel is also owned by the site owner. Groundwater monitoring wells were installed and monitored as protocol from Washington Department of Ecology (Ecology) guidance documents recommend.

Soils at the site consist of sandy loam containing some clay, corresponding to GC on the Unified Soil Classification System. During excavation, groundwater was encountered at approximately 7 feet bgs. The groundwater gradient was established by data from nine monitoring wells. The direction of groundwater flow determined to be east toward Hood Canal.

In April 2002, Stemen Environmental, Inc. collected seven discreet soil samples and five discreet groundwater samples from locations throughout the site. The soil samples were collected at depths ranging from 6 to 12 feet bgs. In addition, six composite soil samples and one discreet groundwater sample were collected from the parcel west of the site where the soils excavated were stockpiled and graded. The composite soil samples were collected from depths ranging from 9 to 36 inches bgs. All samples were submitted for laboratory analysis for gasoline-rang petroleum hydrocarbons (TPH-G) by Ecology Method NWTPH-Gx and for benzene, toluene, ethylbenzene, and xylene (BTEX) compounds by EAP Method 8021B.

Analytical results of the discreet soil samples indicated the presence of TPH-G, benzene, ethylbenzene, and xylenes at concentrations in excess of their respective Model Toxics Control Act (MTCA) Method A cleanup levels of 30 milligrams per kilogram (mg/kg), 0.03 mg/kg, 6 mg/kg and 9 mg/kg. Concentrations of TPH-G ranged from 32 mg/kg to 530 mg/kg; benzene ranged from 1.6 mg/kg to 3 mg/kg; and ethylbenzene and exylenes were detected at 6.3 mg/kg and 38 mg/kg respectively. The highest concentrations were detected at locations S-1 and S-2, which are located down gradient of the former UST site.

Analytical results of the groundwater samples indicated the presence of TPH-G and benzene in excess of their respective MTCA Method A cleanup levels of 800 micrograms per liter (µg/L) and 5 µg/L. The exceedances occurred in S-1 [TPH-G (1,700 µg/L) and benzene (22 µg/L)] and S-2 [TPH-G (12,000 µg/L) and benzene (66 µg/L)].

In June 2002, five permanent monitoring wells (MW-1 through MW-5) were installed throughout the site. The wells were screened from 10 to 20 feet bgs, except for MW-1, which was screened from 4.5 to 14.5 feet bgs. The depth to groundwater in the wells ranged from 6.29 feet bgs in MW-1 to 8.0 feet bgs in MW-2. Groundwater samples were collected from MW-1 through MW-4 using disposable polyvinyl chloride (PVC) bailers and submitted for laboratory analysis for TPH-G by Ecology Method NWTPH-Gx and BTEX compounds by EPA Method 8021B. MW-5 could not be sampled due to a parked vehicle restricting access.

Analytical results did not detect the presence of any contaminants above laboratory detection limits. *It should be noted that due to the installation of the well screens below the water table in four out of five of the wells, any light non-aqueous phase liquid (LNAPL) floating near the surface of the water table is not likely to show up in these wells.* The monitoring wells, including MW-5, were sampled again in September 2002, September 2004, and November 2004, and samples submitted for analysis for the constituents analyzed for previously. For all rounds of sampling, no contaminants were detected in the groundwater samples above laboratory detection limits.

In April 2004, the Brinnon General Store site entered into Ecology's Voluntary Clean-up Program (VCP). Ecology then made recommendations in an Opinion Letter dated 5/3/06. At an unknown date, in response the letter, four additional monitoring wells were installed on site by Now Environmental, Inc., and allegedly screened to bracket the water table. It is presumed that soil and groundwater samples were also collected as part of the well installation activities as requested by Ecology. However, this information was not provided to Ecology because for reasons unknown, the site owner fired the consultant, Bob Simons, and denied payment before he could provide the sampling data.

In July 2007, Ecology received a remedial investigation report from the site owner's new consultant, Randy Perkins, Pacific Environmental Restoration. As part of this investigation, the four new monitoring wells were sampled and three soil samples were collected from two locations along the northern side of the convenience store building. The soil and groundwater samples were analyzed for TPH-G by Ecology Method NWTPH-Gx, volatile organic compounds (VOCs) by EPA Method 7420 (soil) and 239.3 (groundwater). No contaminants were detected in the samples at concentrations above the MTCA Method A cleanup levels.

In addition, a drinking water sample was collected from the on-site water supply well by the site owner. The sample was analyzed for TPH-G by Ecology Method NWTPH-G. TPH-G was not detected.

In August 2007, Ecology reviewed the independent remedial action report and supporting documentation and determined that the remedial action to date is not sufficient to meet the specific substantive requirements contained in MTCA and its implementing regulations, Chapter 70.105D and Chapter 173-340 WAC for characterizing and addressing the documented release of gasoline-range petroleum hydrocarbons and BTEX compounds in soil and groundwater. In an Opinion letter dated August 8, 2007, Ecology detailed the substantive requirements of MTCA that needed to be met for this site to receive a designation of No Further Action (NFA).

On July 23, 2009, Ecology requested an update on the status of the cleanup and plan from the site owners for completing the cleanup. There was no response to the request, thus Ecology terminated the VCP Agreement.

On November 3, 2010, Lori Clark of Jefferson County Public Health (JCPH), conducted a site visit as a part of a Site Hazard Assessment (SHA). Per the site owner's request she met on site with Mr. Randy Perkins, Pacific Environmental, Inc. The site was inspected and photos obtained. No additional water or soil sampling was performed. The scoring and ranking of this site was based on site-specific results from previous reports and sampling events.

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):

Due to the significant contamination documented on-site being primarily subsurface, the air route is not applicable for WARM scoring for this site. Groundwater and surface water were scored because of the documented contamination from UST leak, the site's proximity to surface water, soil permeability and due to the fact that excavated soil was stockpiled on an adjacent lot.

ROUTE SCORES:

Surface Water/Human Health:	**50.0**	Surface Water/Environmental.:	**51.0**
Air/Human Health:	**NS**	Air/Environmental:	**NS**
Groundwater/Human Health:	**54.0**		

OVERALL RANK: 1

WORKSHEET 2
Route Documentation

1. **SURFACE WATER ROUTE**

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

   Gasoline-range petroleum hydrocarbons (TPH-G), benzene, toluene, ethylbenzene, and xylene (BTEX).

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

   Substances documented present either in surface soil historically or in groundwater with potential to drain to surface water

   c. List those management units to be considered for scoring: Source 1, 2

   Surface and subsurface soils and groundwater that may drain to surface water.

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

   Spills/discharges caused soil contamination with potential to drain to surface water

2. **AIR ROUTE**

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

   Gasoline-range petroleum hydrocarbons (TPH-G), benzene, toluene, ethylbenzene, and xylene (BTEX).

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

   Analytical results from soil 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: 1, 2

   Surface and subsurface soils

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

   Spills/discharges caused contamination in surface and subsurface soils.

3. **GROUNDWATER ROUTE**

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

   Gasoline-range petroleum hydrocarbons (TPH-G), benzene, toluene, ethylbenzene, and xylene (BTEX).

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

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

   c. List those management units to be considered for scoring: Source: 1, 2

   Surface and subsurface soils and contaminated groundwater.

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

Documented groundwater contamination with these substances exceeding MTCA Method A Clean Up Levels.

WORKSHEET 4
Surface Water Route

1.0 SUBSTANCE CHARACTERISTICS

1.1 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	Benzene	5	8	3306	3	-	-	A	0.029	3
2	Toluene	2000	2	5000	3	0.2	1	-	-	-
3	TPH-G	5	8	3306	3	-	-	A	0.029	3
4	Ethylbenzene	700	4	3500	3	0.1	1	-	-	-
5	Xylene (BTEX)	1000	2	50	10	2	1	-	-	-

* *Potency Factor*

Source: 1,2

Highest Value: 10
(Max = 10)

Plus 2 Bonus Points? 2

Final Toxicity Value: 12
(Max = 12)

1.2 Environmental Toxicity ( ) Freshwater (x) Marine

	Substance	Acute Water Quality Criteria		Non-Human Mammalian Acute Toxicity	
		(µg/L)	Value	(mg/kg)	Value
1	Benzene	5100	2	3306	4
2	Toluene	6300	2	5000	4
3	TPH-G	5100	2	3306	4
4	Ethylbenzene	430	4	3500	4
5	Xylene (BTEX)	-	-	50	6

Source: 1,2

Highest Value: 6
(Max = 10)

1.3 Substance Quantity

Explain Basis: 3– 1000 gallon UST were in place. An unknown quantity leaked.	Source:1,2 **Value:4** (Max = 10)

2.0 MIGRATION POTENTIAL

		Source	Value
2.1	**Containment** **Explain basis:** Documented spill with no run-on/run-off controls in place.	1	**10** (Max = 10)
2.2	**Surface Soil Permeability:** The site consists of sandy loam.	11	**1** (Max = 7)
2.3	**Total Annual Precipitation: 50** in/yr	5	**5** (Max = 5)
2.4	**Max 2yr/24hr Precipitation:** .20	4	**1** (Max = 5)
2.5	**Flood Plain:** In 100-year flood plain.	2	**2** (Max = 2)
2.6	**Terrain Slope:** <2%	9	**1** (Max = 5)

3.0 TARGETS

		Source	Value
3.1	**Distance to Surface Water:** approx 900 ft	9	**10** (Max = 10)
3.2	**Population Served within 2 miles (see WARM Scoring Manual Regarding Direction):** √2518= 50.2	6,9	**50** (Max = 75)
3.3	**Area Irrigated by surface water within 2 miles : (0.75)*√ # acres** = N/A	7,8	**0** (Max = 30)
3.4	**Distance to Nearest Fishery Resource**	9	**12** (Max = 12)
3.5	**Distance to, and Name(s) of, Nearest Sensitive Environment(s):** 900 ft to Hood Canal	9	**12** (Max = 12)

4.0 RELEASE

Explain Basis: Documented release to groundwater. Also, stockpiled soil left on property had documented contamination.	Source: 1,2 **Value:5** (Max = 5)

WORKSHEET 6
Groundwater 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	Benzene	5	8	3306	3	ND	-	A	1	-
2	Toluene	2000	2	5000	3	0.2	1	-	-	5
3	TPH-G	5	8	3306	3	ND	-	A	1	-
4	Ethylbenzene	700	4	3500	3	0.1	1	-	-	5
5	Xylene (BTEX)	1000	2	50	10	2	1	-	-	7

****Potency Factor***

Source: 1, 2, 3

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=	1.8E+03
2=	5.4E+02
3=	1.8E+03
4=	1.5E+02
5=	2.0E+02

Source: 1,3

Value: 3
(Max = 3)

1.3 Substance Quantity (volume):

Explain basis: Three 1,000 UST's containing leaded and unleaded gasoline leaked and unknown quantity.

Source: 1, 3

Value: 4
(Max=10)

2.0 MIGRATION POTENTIAL

		Source	Value
2.1	**Containment (explain basis):** Documented soil contamination.	1,2,3	**10** (Max = 10)
2.2	**Net precipitation:** 6.25" – 0.87" = 5.38"	5	**1** (Max = 5)
2.3	**Subsurface hydraulic conductivity:** The site consists of sandy loam.	11	**3** (Max = 4)
2.4	**Vertical depth to groundwater:** Groundwater is approximately 7 feet below ground surface.	2	**8** (Max = 8)

3.0 TARGETS

		Source	Value
3.1	**Groundwater usage:** Private supply, but alternate sources available with minimum hookup requirements.	7,8	**4** (Max = 10)
3.2	**Distance to nearest drinking water well: ~75 feet**	6,9,10	**5** (Max = 5)
3.3	**Population served within 2 miles: √ pop. =** √2518= 50.2	6,9	**50** (Max = 100)
3.4	**Area irrigated by (groundwater) wells within 2 miles: (0.75)*√# acres =** N/A	6,9	**0** (Max = 50)

4.0 RELEASE

	Source	Value
Explain basis for scoring a release to groundwater: Confirmed release to aquifer.	3, 6	**5** (Max = 5)

SOURCES USED IN SCORING

1. Analytical results of soil sampling conducted on April 2002, by Stemen Environmental, Inc.
2. Washington State Department of Ecology Site Summary, August 8, 2007.
3. Washington State Department of Ecology, Toxicology Database for Use in Washington Ranking Method Scoring, January 1992
4. Washington State Department of Ecology, WARM Scoring Manual, April 1992.
5. Washington Climate – Net Rainfall Table.
6. Washington State Department of Ecology, Water Well Reports
7. Washington State Department of Ecology, Water Rights Information System (WRIS), 1997.
8. Washington State Department of Health, Public Water Supply Data, Sentry Database, October 2010.
9. Jefferson County GIS System (ArcView 10).
10. Site visit conducted on November 3, 2010 (Jefferson County Public Health).
11. Groundwater Well Monitoring Report, Now Environmental Services, Inc., July 2007.

PATHWAY SCORING FORMULAE WITH WEIGHTING AND NORMALIZATION FACTORS

Air Route - Human Health Pathway

AIR = (SUB X 60/329) X {REL + (TAR X 35/85} / 24 = **0.00**

where AIR = Pathway score for Air-Human Health =
SUB = (Human Toxicity Value + 5) X (Containment +1) + Substance Quantity = 5

REL = Release to Air = 0
TAR = Nearest population + Population within 1/2 mile = 0

Air Route - Environmental Pathway

AIR = (SUB X 60/329) X {REL + (TAR X 35/85} / 24 = **0.00**

where AIR = Pathway score for Air-Environmental =
SUB = (Env. Toxicity Value + 5) X (Containment +1) + Substance Quantity = 5

REL = Release to Air = 0
TAR = Nearest Sensitive Environment = 0

Surface Water Route - Human Health Pathway

SW = (SUB X 40/175) X {(MIG X 25/24)) + REL + (TAR X 30/115)} / 24 = **50.01**

where SW = Pathway Score for Surface Water-Human Health =

SUB = (Human Toxicity + 3) X (Containment + 1) + Substance Quantity = 169

MIG = Soil Permability + Annual Precip. + Rainfall Frequency + Floodplain + Slope = 10

REL = Release to the Surface Water = 5

TAR = Distance to Surface Water + Population Served by Surface Water + Area Irrigated = 60

Table 2 (Continued)

Surface Water Route - Environmental Pathway

SW = (SUB X 40/175) X {(MIG X 25/24)) + REL + (TAR X 30/115)} / 24 = **50.96**

where SW = Pathway Score for Surface Water-Environmental =

SUB = (Env. Toxicity + 3) X (Containment + 1) + Substance Quantity = 103

MIG = Soil Permability + Annual Precip. + Rainfall Frequency + Floodplain + Slope = 10

REL = Release to the Surface Water = 5

TAR = Distance to Nearest Surface Water + Distance to Fisheries Resource + Distance to Sensitive Environment = 34

Ground Water Route - Human Health Pathway

GW = (SUB X 40/208) X {(MIG X 25/17) + REL + (TAR X 30/165)} / 24 = **54.02**

GW = Pathway Score For Ground Water-Human Health =

SUB = (Human Toxicity + Mobility + 3) X (Containment + 1) + Substance Quantity = 202

MIG = Depth to Aquifer + Net Precipitation + Hydraulic Conductivity = 12

REL = Release to the Ground Water = 5

TAR = Aquifer Use + Well Distance + Population Served + Area Irrigated = 59

WORKSHEET 4
SURFACE WATER ROUTE

1.0 SUBSTANCE CHARACTERISTICS

1.1 Human Toxicity

Substance	Drinking Water Standard (ug/l)	Val.	Acute Toxicity (mg/kg-bw)	Val.	Chronic Toxicity (mg/kg/day)	Val.	Carcinogenicity WOE	PF	Val.
benzene	5	8	3306	3	ND		A	1	
toluene	2000	2	5000	3	0.2	1			5
TPH-G	5	8	3306	3	ND		A	1	
ethylbenzene	700	4	3500	3	0.1	1			5
xylene (BTEX)	1000	2	50	10	2	1			7

Source: 1, 4

Highest Value: 10

2 Bonus Points? 2

Final Toxicity Value **12**

1.2 Environmental Toxicity

( ) Freshwater
(x) Marine

Source 1, 4 Value: **6**

Substance	Acute Criteria (ug/l)	Val.	Non-human Mammalian Acute Toxicity (mg/kg)	Val.
benzene	5100	2	3306	3
toluene	6300	2	5000	3
TPH-G	5100	2	3306	3
ethylbenzene	430	4	3500	3
xylene (BTEX)			50	6

1.3 Substance quantity — Source 1 Value: 4
Explain basis:

2.0 MIGRATION POTENTIAL

2.1 Containment — 3, 1000gal UST were in place, estimating that between — Source 1, 3 Value: 10

2.2 Surface Soil Permeability: sandy loam — Source 1, 3, 8 Value: 1

2.3 Total Annual Precipitation: 50 inches/year — Source 6 Value: 5

WORKSHEET 4 (CONTINUED)
SURFACE WATER ROUTE

2.4 Max. 2-Yr/24-hour Precipitation: .20 inches — Source 3 Value: 1

2.5 Flood Plain: in 100-yr flood plain — Source 1, 6 Value: 2

2.6 Terrain Slope: <2% — Source 1, 6 Value: 1

3.0 TARGETS

3.1 Distance to Surface Water: 900 ft — Source 1, 6 Value: 10

3.2 Population Served within 2 miles: 50.2 — Source 6 Value: 50

3.3 Area Irrigated within 2 miles: 0 — Source 1 Value: 0

3.4 Distance to Nearest Fishery Resource: — Source 7 Value: 12

3.5 Distance to, and Name (s) of, nearest Sensitive Environment (s) : — Source 7 Value: 12

4.0 RELEASE

Explain basis for scoring a release to surface water: Documented realease to gro — Source 1 Value: 5

WORKSHEET 5
AIR ROUTE

1.0 SUBSTANCE CHARACTERISTICS

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

1.2 Human Toxicity

Substance	Air Standard (ug/m3)	Val.	Acute Toxicity (mg/m3)	Val.	Chronic Toxicity (mg/kg/day)	Val.	Carcinogenicity WOE	PF	Val.

Source: 4
Highest Value: _____
2 Bonus Points? _____
Final Toxicity Value _____

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

1.3.1 Gaseous Mobility — Source 3 Value: _____
Vapor Pressure:

1.3.2 Particulate Mobility — Source 3 Value: _____
Soil type:
Erodibility:
Climactic Factor:

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

Final Human Health Air Matrix Value: _____

1.5 Environmental Toxicity/Mobility — Source: 4

Substance	Non-human Mammalian Acute Toxicity (mg/m3)	Value (1-10)	Mobility Value (0-4)	Matrix Value

1.5 Highest Environmental Toxicity/Mobility Matrix Value (from Table A-7) equals

Final Environmental Health Air Matrix Value: _____

1.6 Substance Quantity:
Explain basis — Source 1 Value: _____

WORKSHEET 5 (CONTINUED)
AIR ROUTE

2.0 MIGRATION POTENTIAL

2.1 Containment: Source 3 Value: _____

3.0 TARGETS

3.1 Nearest Population: Source 3,7 Value: _____

3.2 Distance to, and Name (s) of, Nearest Sensitive Environment(s): Source 1,3,7 Value: _____

3.3 Population within 0.5 miles: Source 7 Value: _____

4.0 RELEASE

Explain basis for scoring a release to air: Source 1,3 Value: _____

WORKSHEET 6
GROUND WATER ROUTE

1.0 SUBSTANCE CHARACTERISTICS

1.1 Human Toxicity

Drinking

Substance	Water Standard (ug/l)	Val.	Acute Toxicity (mg/kg-bw)	Val.	Chronic Toxicity (mg/kg/day)	Val.	Carcinogenicity WOE	PF	Val.
benzene	5	8	3306	3	ND		A	1	
toluene	2000	2	5000	3	0.2	1			5
TPH-G	5	8	3306	3	ND		A	1	
ethylbenzene	700	4	3500	3	0.1	1			5
xylene (BTEX)	1000	2	50	10	2	1			7

Source: 1,3,4
Highest Value: 10
2 Bonus Points? 2
Final Toxicity Value: 12

1.2 Mobility (Use numbers to refer to above listed substances) Source 3,4 Value: 3

Solubility (0-3)

substance	solubility	score
benzene	1.8E+03	3
toluene	5.4E+02	2
TPH-G	1.8E+03	3
ethylbenzene	1.5E+02	2
xylene (BTEX)	2.0E+02	2

1.3 Substance Quantity 1,3 Value: 4
Explain basis: 3, 1000gal UST were in place, estimating that between 100-1000gal may have leakec

2.0 MIGRATION POTENTIAL

2.1 Containment Source 1,3 Value: 10
Explain basis: Spill/ contaminated soil

2.2 Net Precipitation (N-A):6.25-.80=5.38 Source 2,3,5C Value: 1

2.3 Subsurface Hydraulic Conductivity: sandy loam Source 3,8 Value: 3

2.4 Vertical Depth to Ground Water: 7ft Source 3,9 Value: 8

WORKSHEET 6
GROUND WATER ROUTE (CONTINUED)

3.0 TARGETS

3.1 Ground Water Usage: Private supply, but alternate sources availabel with minum Source 3,7,9 Value: 4

3.2 Distance to Nearest Drinking Water Well: 75ft Source 3,7,9 Value: 5

3.3 Population Served within 2 Miles: 50.2 Source 3,7,9 Value: 50

3.4 Area Irrigated by (Groundwater) Wells within 2 miles: 0 Source NA Value: 0

4.0 RELEASE

Explain basis for scoring a release to ground water: confirmed release to aquifer. Source 1,3 Value: 5

Sources Used in Scoring

1. Jefferson County Public Health SHA research, site visits, and sampling event data

2. Washington Climate – Net Rainfall Table

3. Washington Department of Ecology, WARM Scoring Manual, April, 1992.

4. Washington Department of Ecology, Toxicology Database for Use in Washington Ranking Method Scoring, January, 1992.

6. Jefferson County GIS system (ArcView 10)

7. EPA Site Info, April 2001

8. Soil Survey of Jefferson County Area, WA, United States Department of Agriculture, Soil Conservation Service, September 1980

9. Washington State Department of Health, Sentry Internet Database printout for public water supplies.

10. Washington State Department of Ecology, Model Toxics Control Act Cleanup Levels and Risk Calculations Update February 1996.

11. Washington State Department of Ecology, Water Rights Information System (WRIS), 1997.

Brinnon General Store Water Wells

Legend

- Water Wells
- 2-mile Buffer
- Parcels