Skagit County Department of Public Health and Community Services

"Always working for a safer and healthier Skagit County"

Jennifer Johnson, Director
Howard Leibrand, M.D., Health Officer

August 11, 2015

Ms. Ruth K Day
13087 Woodside Ln SW
Port Orchard, WA 98367

Re: SITE HAZARD ASSESSMENT: Facility Site ID # 92448847

Henry's Market
P34732
Cleanup Site ID 11068

Dear Ms. Day:

The above referenced property was subject to a site hazard assessment (SHA) as required under the Model Toxics Control Act, on May 16, 2015. The site was determined to be contaminated with total petroleum hydrocarbons in the gasoline range from a former underground storage tank. The 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 by Ecology to be a 5, where a 1 represents the highest relative risk and 5 the lowest.

For your information, Ecology will be publishing ranking of this, and other recently assessed sites, in the August 2015 Special Issue of the Site Register. The hazard ranking will be used in conjunction with other considerations in determining Ecology's priority for future action at this site. This report is available here: https://fortress.wa.gov/ecy/gsp/Sitepage.aspx?csid=**11068**. To view the documentation Ecology has available electronically; on the right-hand side of the web-page, click on View Electronic Documents.

Please contact me at 360-416-1563 or corrinam@co.skagit.wa.us if you have any inquiries or comments about this site's scoring/ranking. For inquiries regarding what may occur with your site now that it is on Ecology's Hazardous Sites List, please contact Donna Musa at (425) 649-7136 or by email at donna.musa@ecy.wa.gov.

Sincerely,

Corrina Mard

Environmental Health Specialist

cc: Ted Benson, Ecology
Donna Musa, Ecology

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SITE HAZARD ASSESSMENT
Worksheet 1
Summary Score Sheet

SITE INFORMATION:

Cleanup Site ID: 11068

Henry's Market

Facility/Site ID: 92448847

17026 Allen West Rd.

Bow, Skagit County, WA 98232

Section:	24	Latitude:	48.51535
Township:	35N	Longitude:	-122.37787
Range:	3E	Tax/Parcel ID:	P34732

Site Scored/ranked for the August 2015 Hazardous Sites List Publication

SITE DESCRIPTION:

The Henry's Market site is a former gas station and grocery store located northwest of Burlington, Skagit County, Washington. The 0.33-acre property is located approximately 450 feet from Samish River, and zoned for Rural Center use.

Adjacent properties include a rural fire station, farmland, a small retail center that includes a grocery store, baseball fields, and an elementary school to the south.

The site is currently operated as a Private residence by Ms. Ruth Day.

The site is flat and located at the southeast corner of Allen West and Avon Allen Roads. The Samish River and riparian vegetation is north of the site. The majority of the surrounding land is agriculture.

SITE BACKGROUND:

A summary of prior operations/tenants at the subject property is presented below.

From	To	Operator/Tenant	Activity
1976	1986	Flo & Eddie's	Gas and grocery (approximate)
1986	2004	Milray's	Gas and grocery (approximate)
2004	2012	Vanilla Swan	Espresso and ice cream (approximate)
2012	2015		Private residence (approximate)

SITE CONTAMINATION:

In 1991 the Henry's Market site was reported to Washington Department of Ecology and placed on the CSCS list with ID number 11068.

Three underground storage tanks were removed in January 1991. All three tanks had contaminated soil around the fill pipes.

Recent work (October 2014) by the Department of Transporation indicated that contamination above the Model Toxics Control Act (MTCA) Method A Cleanup levels for total petroleum hydrocarbons in the gasoline range (TPH-G).

PAST REMEDIATION ACTIVITIES:

The area was overexcavated in 1991 when contamination was found during the removal of the underground storage tanks and the contaminated soils were placed in a "berm yard" to remediate on site. Once the soils were

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considered "clean", the soils were removed to the owner's farm. Last fall (October 2014) the Department of Transportation (DOT) discovered petroleum-contaminated soil in the right-of-way from this site. DOT tested the soil for total petroleum hydrocarbons in the gasoline and diesel ranges (TPH-G and -D), a complete panel of volatiles on the EPA list for method 8260C, and lead. The samples were above MTCA Method A Cleanup levels for TPH-G and total xylenes.

CURRENT SITE CONDITIONS:

The site is flat with surface water generally draining north to the Samish River. Most of the residences and businesses are served by public drinking water systems, although there are 48 wells serving approximately 144 people in Ecology's well log database and nearly 4000 acres irrigated by groundwater in the area.

The approximate depth to groundwater is 12 feet below ground surface, with groundwater flowing to the N. Subsurface soils are silty sand, sandy silt.

SPECIAL CONSIDERATIONS:

Checked boxes indicate routes applicable for WARM scoring

☐ **Surface Water**

☐ **Air**

☑ **Groundwater**

Documented contamination by total petroleum hydrocarbons in the gasoline range (TPH-G) and xylenes (X) above MTCA Method A Cleanup levels in soil.

The December 10, 2014 letter from WADOT states that historic contamination over MTCA Method A was discovered during exploratory excavation at the intersection near the site. More than 19 tons of contaminated soil was removed to Cemex in Everett. The letter indicates that materials from the construction excavation were removed; however, a site diagram of the excavation was not included. It's not clear that remediation of the site was completed.

ROUTE SCORES:

Surface Water/ Human Health:	0.0	Surface Water/ Environment:	0.0
Air/ Human Health:	0.0	Air/ Environment:	0.0
Groundwater/ Human Health:	23.2		

Overall Rank: 5

REFERENCES:

2014 December, Washington State Department of Transportation letter re: contaminated media.

2015 May, Skagit County Environmental Public Health files and field notes.

1994 October, A-1 Pump Service Henery's Corner Market Site Assessment.

2012, Washington Department of Ecology, Water Rights Explorer.

1990 December, Department of Ecology Check List for Permanent Closure of Underground Storage Tanks.

2011 May, Department of Ecology Initial Investigation Field Report.

2015 March, Geocortex Viewer for Silverlight.

SITE HAZARD ASSESSMENT
Worksheet 1
Summary Score Sheet

1992 January, Washington Department of Ecology, Toxicology Database for use in Washington Ranking Method Scoring.
1966 April, Washington Climate Data, National Weather Service.

SITE HAZARD ASSESSMENT
Worksheet 2
Route Documentation

Cleanup Site ID: 11068 Henry's Market

Facility/Site ID: 92448847

1. SURFACE WATER ROUTE

List those substances to be considered for scoring:

N/A

Explain the basis for choice of substances to be used in scoring:

N/A

List those management units to be considered for scoring:

N/A

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

N/A

2. AIR ROUTE

List those substances to be considered for scoring:

N/A

Explain the basis for choice of substances to be used in scoring:

N/A

List those management units to be considered for scoring:

N/A

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

N/A

3. GROUNDWATER ROUTE

List those substances to be considered for scoring:

TPH-G, X

Explain the basis for choice of substances to be used in scoring:

Documented contamination with TPH-G and X above MTCA Method A in soils.

List those management units to be considered for scoring:

Groundwater

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

Documented contamination with TPH-G and X above MTCA Method A in soils.

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, LD50, rat	3	-	-	A	0.029	5
2	Xylenes	10000	2	50, LDLo, hmn	10	2	1	--	--	ND
3										
4										

** Potency Factor*

Source:

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=	1= 1800 value = 3
	2= 200 value = 2
	3=
	4=

Source: 8

Value: 3
(Max = 3)

1.3 Substance Quantity (volume):	
Explain basis: Approximately 45 cubic yards of contaminated soil excavated from site.	Source: 3,5 **Value:5**

	(Max=10)

2.0 MIGRATION POTENTIAL

		Source	Value
2.1	**Containment (explain basis):** Contaminated area has been capped; score as landfill with a cover and no liner or leachate system	2, 3, 5, 8	**3** (Max = 10)
2.2	**Net precipitation:** (5.6+6.4+5.4+4.2+4.7+3.3)-(.9+.5+.4+.6+1.2+2.1) = 23.9"	9	**3** (Max = 5)
2.3	**Subsurface hydraulic conductivity:** sandy silt, silty sand, permeable till	4	**3** (Max = 4)
2.4	**Vertical depth to groundwater:** Monitoring well log reports on site < 25'depth to ground water	4	**8** (Max = 8)

3.0 TARGETS

		Source	Value
3.1	**Groundwater usage:** Private supply with alternate sources available	4	**4** (Max = 10)
3.2	**Distance to nearest drinking water well:** >1300 - 2640	4, 7	**3** (Max = 5)
3.3	**Population served within 2 miles:** √ **pop.** = √**144**=12	4, 7	**12** (Max = 100)
3.4	**Area irrigated by (groundwater) wells within 2 miles : (0.75)*√# acres =** 0.75 * √3792.25 = 46.2	4, 7	**47** (Max = 50)

4.0 RELEASE

	Source	Value
Explain basis for scoring a release to groundwater: Contamination above MTCA Method A Clean Up Level found in subsurface soil.	2, 3, 5, 8	**5** (Max = 5)

Ground Water Route – Human Health Pathway

$GW_H = (SUB_{GH} \bullet 40/208) \bullet [(MIG_G \bullet 25/17) + REL_G + (TAR_{GH} \bullet 30/165)] / 24$

where,

$GW_H =$	Pathway Score for Ground Water-Human Health
$SUB_{GH} =$	(Human Toxicity + Mobility + 3) • (Containment + 1) + Substance Quantity
$MIG_G =$	Depth to Aquifer + Net Precipitation + Hydraulic Conductivity
$REL_G =$	Release to the Ground Water
$TAR_{GH} =$	Aquifer Use + Well Distance + Population Served + Area Irrigated

$SUB_{GH} = 77$, $MIG_G = 14$, $REL_G = 5$, $TAR_{GH} = 66$ **SCORE = 23.2**

QUINTILE (February 2015) = 1

HUMAN HEALTH PRIORITY = $(H^2 + 2M + L)/8$
$= 1^2/8$
$= 1$

FINAL MATRIX RATING = 5

Photo Album

Henry's Market
FSID 92448847 CSID 11068
Skagit County, Washington

by Corrina L. Marote

Henry's Market site with 2-mile buffer


P34204
P34206
P34205
P34267
P34254
Samish River
P34194
13-35-3
P34185
P34270
P34202
P34337
P34268
TWP 35N
RNG 3E
P90258
P34186
P34199
P34200
P34274
P34273
P34198
Site
P34687
P34732
P34734
P34735
24-35-3
P34740
P34739
P34733

Site from southwest

Location of former tanks

Location of former tanks