Site Hazard Assessment
Worksheet 1
Summary Score Sheet

DRAFT

SITE INFORMATION

Name: **Juneau Street Associates, LLC**
Address: **2320 Pacific Ave**
City: **Tacoma,** **County: Pierce,** **State: WA** **Zip: 98401**
Section/Township/Range: Section 09, Township 20N, Range 03E
Latitude: 47° 14' 25.8"N **Longitude: 122° 26' 9.48"W**
Facility Site ID Number: 28236738

Site assessed/ranked for the February 21, 2007 update

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

General Information
The subject property consists of a two-story masonry built structure which occupies the entire footprint of the one half acre parcel, APN 2023040030. The second story is occupied by J. Marcel Enterprises and Olympic Uniforms, an apparel manufacturing business. The first story is occupied by AT&T.

The property is classified as light industrial, and is located in an area of mixed use. Wingard Refrigeration, a retail establishment, lies to the north of the subject property. US Bank is located across Pacific Ave, to the east. The Pierce County Auto Maintenance Shop occupies the parcel to the south, across south 24th Street. To the west, across Commerce Street, is a storage warehouse under the business name of PC Records Storage. These facilities accurately represent the mixed use of this area, which is generally considered to be the south end of "downtown" Tacoma.

Subsurface Geology
Review of both Ecology and Tacoma-Pierce County Health Department files does not lend information regarding subsurface soil types for this specific site. Review of TPCHD underground storage tank removal files for locations within the general area contain mixed information regarding what the subsurface geology may be for the subject site.

Site characterization information contained in the file for the removal of an underground storage tank located at 2302 Pacific Ave (approximately seventy three (73) feet away and at approximately the same elevation as the subject site) indicate that subsurface soils consist of a "sandy, rocky clay type material to a depth of 7.5 feet".

Site characterization information contained in the file for the removal of an underground storage tank located at 2112 Pacific Ave (approximately six hundred eighty seven (687) feet north and at approximately the same elevation as the subject site) indicate that subsurface soils consist of

"clayey sands, sand-clay mixtures with pockets of clay". No indication of depth is given in the report contained in this file.
Site characterization information contained in the file for the removal of an underground storage tank located at 102 24th St. S (approximately four hundred forty (440) feet southeast and at approximately twenty (20) feet lower elevation than the subject site) indicate that subsurface soils consist of "sandy, rocky, clay type material to a depth of about eight (8) feet".

Current site conditions indicate that the subgrade basement of the subject site lies below the water table. Use of a sump pump is also referenced in the original report submitted by Creative Environmental Technologies, Inc. (CETI).

Recent Site History
On January 3, 2000, the City of Tacoma Resource Protection Program detected a slug of petroleum coming into the the City of Tacoma central treatment plant located at 2201 Portland Ave. The City of Tacoma dispatched two inspectors to locate the source of the material. The inspectors were able to trace the material to the City of Tacoma's Dock Street sanitary waste pump station, where a "significant amount of product was observed in the wet well". Samples of the oily material were collected and sent to the city's laboratory for analysis. Through observation of the direction of flow, the inspectors continued to trace the source of the material to the general area of the subject site. Once the general area was established, the inspectors began interviewing nearby businesses regarding recent spills and the locations/conditions of USTs.

On January 4, 2000, sewer utility transmission crews used a video camera to to trace the material through the storm sewer lines and they were able to observe the oily material coming into the mainline via a specific side connection. Further interview of surrounding businesses led the City of Tacoma inspectors to the subject site, where contact with the property owner was established. Once confronted with the nature of the situation the property owner's representitative revealed that the oil was coming from two pipes that had been damaged during the removal of a boiler or furnace. It is believed that the oil coming from the damaged pipes was being displaced due to groundwater intrusion into the connecting Underground Storage Tank (UST). The oil leaking from these pipes was flowing into an open sump with a drain that discharges to the municipal storm sewer. City of Tacoma workers were able to create a concrete bearm to contain the oil and also capped the damaged pipes. Samples of the material were then obtained and analyzed. Laboratory analysis confirmed that the samples obtained from the Dock Street pump station and the furnace room were from the same source and were consistent with bunker C heating oil.

Initially the property owner was given the chance to make clean up arrangments, but due to the emergency nature of the situation the City of Tacoma Sewer Utility decided to go forward with remediation of the sewer mainline.

On January 6, 2000, the municpal sewer main along Pacific Ave, from South 24th St. to South 21st St. was flushed, an estimated length of two thousand five hundred (2500) feet. A cleanup and disposal contractor was hired by the City to remediate the Dock Street pump station and wet well. After the flushing operation was completed the sewer main was once again inspected, and

visible contamination was still observed. No additional remedial efforts of the sewer have been reported.

On January 13th, 2000, Creative Environmental Technologies, Inc. (CETI) was hired by the property owner to decommission the leaking underground storage tank (UST) at the subject site, the source of the bunker oil. The tank is situated under the structure of the building and was accessed by removing a section of the concrete foundation. Once the concrete was removed it became apparent to CETI that the UST had been leaking for some time due to visible contamination of soil and groundwater. Due to the limited access, the Tacoma-Pierce County Health Department (TPCHD) allowed the tank to be decommissioned in place. Approximately three thousand gallons of bunker type oil and water were pumped from the LUST, which was then filled with slurry and capped. No soil or groundwater samples were collected at this time.

On February 8, 2000, the TPCHD received a letter from CETI indicating that the property owner had hired them to develop a cleanup action plan. As of this date a cleanup plan has not been submitted.

On March 8, 2000, the TPCHD received a letter from CETI indicating that they were preparing an application to Ecology's Voluntary Cleanup Program (VCP).

On June 25, 2002, the subject site was listed on Ecology's Confirmed or Suspected Contaminated Sites database to await a site hazard assessment ranking.

In April, 2004, the former property owner submitted an application for Ecology's Voluntary Cleanup Program.

On April 7, 2006, Ecology served a Notification of Pending Inactive Determination letter, and on May 9, 2006, the site was subsequently removed from the VCP.

In November 2006, the TPCHD was contacted by the "Riley Group", an environmental consulting/remediation firm that was in the process of conducting a Phase I environmental assessment. A representative of the firm reviewed the TPCHD file for the subject site.

In December 2006, the TPCHD was again contacted by the Riley Group to discuss samples obtained for a Phase II environmental assessment. Preliminary data was presented to the TPCHD indicating carcinogenic polynuclear aromatic hydrocarbon (cPAH) soil contamination above the Model Toxics Control Act Method A cleanup Level for unrestricted land use.

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 surface water and air routes are not applicable for WARM scoring for this site. Thus, only the groundwater route will be scored.

ROUTE SCORES:

Surface Water/Human Health: **NS**

Surface Water/Environ. **NS**

Air/Human Health: **NS**

Air/ Environmental: **NS**

Ground Water/Human Health: **28.5**

OVERALL RANK: 5

Worksheet 2--Route Documentation

1. SURFACE WATER ROUTE: *Not Scored*

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:

2. AIR ROUTE: *Not Scored*

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:

3. GROUND WATER ROUTE:

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

TPH as diesel
Benzo[a]pyrene

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

TPH- diesel will be scored due to concentrations detected in soil, and because it was available to the groundwater route through less than perfect containment.

Benzo[a]pyrene will be scored due to concentrations detected in soil above current MTCA Method A Cleanup Levels for unrestricted land use, and because it was available to the groundwater route through less than perfect containment.

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

Contaminated soil, capped, with no liner or leachate collection system.

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

Contaminated soil verified by laboratory results in contact with groundwater, verified by visual observation.

Worksheet 6 – Ground Water Route

1.0 SUBSTANCE CHARACTERISTICS

1.1 Human Toxicity

	Substance	Drinking Water Standard (ug/1)	Val	Acute Toxicity (mg/kg-bw)	Val	Chronic Toxicity (mg/kg/day)	Val	Carcino-genicity WOE PF*	Val
1	Benzo[a]pyrene	0.2	10	50 (rat)	10	--	--	12(B2)	7
2	TPH -oil	--	--	--	--	0.04	1	--	--
3									
4									
5									
6									

***Potency Factor**

Source: 1,2,3,8

Highest Value: 10 (Max=10)

Plus 2 Bonus Points? 0

Final Toxicity Value: 10 (Max=12)

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

Cations/Anions:	OR	Solubility (mg/1):
1=		1= benzo[a]pyrene = 0.0012 = 0
2=		2= TPH-oil = 0
3=		3=
4=		4=
5=		5=
6=		6=
		Source: 1,2,3,8 **Value:** 0

1.3 Substance Quantity: Unknown

Explain basis: Use default of 1

Source: 2

Value: 1 (Max=10)

Worksheet 6 (cont'd)

2.0 MIGRATION POTENTIAL

2.1	**Containment:** Contaminated soil, capped. **Explain basis**: no liner (3); maintained cover w/o ponding (0); nc leachate collection system (2)	**Source:** 1,2	**Value:** 5 (Max = 10)
2.2	**Net precipitation:** (Nov. – Apr.)19.1 inches (25.5'' – 6.4'')	**Source:** 2,6	**Value:** 2 (Max = 5)
2.3	**Subsurface hydraulic conductivity:** clayey sand	**Source:** 1,2	**Value:** 3 (Max = 4)
2.4	**Vertical depth to groundwater:** 0 feet	**Source:** 1,2	**Value:** 8 (Max = 8)

3.0 TARGETS

3.1	**Groundwater usage:** Federally designated sole source aquifer.	**Source:** 2,7	**Value:** 10 (Max = 10)
3.2	**Distance to nearest drinking water well:**672 feet (Tacoma Star Ice Co Group B)	**Source:** 2,7	**Value:** 4 (Max = 5)
3.3	**Population served within 2 miles:** $\sqrt{}$ pop. = $\sqrt{}$ 305,301 = 553	**Source:** 2,5	**Value:** 100 (Max = 100)
3.4	**Area irrigated by (groundwater) wells within 2 miles:** (0.75) $\sqrt{}$ 3 No. acres = 1.30	**Source:** 2,4	**Value:** 1.30 (Max = 50)

4.0 RELEASE

Explain basis for scoring a release to ground water: Contaminated soil in contact with groundwater.	**Source:** 1,2	**Value:** 5 (Max = 5)

Juneau Street Associates
Sources Used in Scoring

1. Tacoma-Pierce County Health Department Site Hazard Assessment File/Ecology TCP File

2. Washington State Department of Ecology, WARM Scoring Manual, April 1992.

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

4. Water Rights Application Tracking System (WRATS), Ecology

5. Washington State Department of Health Public Water Supply System

6. Washington Climate for Pierce County, National Weather Service Forecast Office

7. Pierce County Geographic Information System Countyview Database

8. Workbook Tools for Calculating Soil and Ground Water Cleanup Levels under MTCA, WA Ecology, August 2006, Pub 01-09-073.