WASHINGTON STATE DEPARTMENT OF ECOLOGY

INITIAL INVESTIGATION FIELD REPORT

ERTS Number: 649074
Parcel #(s): 8950000245
COUNTY: Pierce

SITE INFORMATION

Site Name (e.g., Co. name over door):	Site Address (including City and Zip+4):	Site Phone:
McFarland Cascade Pole Company	1640 Marc Avenue Tacoma, WA 98421	253/ 597-3319
Site Contact and Title: Ted Smith, Environmental Specialist	Site Contact Address (including City and Zip+4): McFarland Cascade Pole Company 1640 Marc Avenue, Tacoma	Site Contact Phone: same as above
Site Owner: Tyee Management Company LLC	Site Owner Address (including City and Zip+4): PO Box 1496 Tacoma, WA 98421	Site Owner Phone: none found
Site Owner Contact:	Site Owner Contact Address (including City and Zip+4):	Owner Contact Phone:
Alternate Site Name(s):	Comments:	
Previous Site Owner(s):	Comments:	

Latitude (Decimal Degrees): 47.25686
Longitude (Decimal Degrees): -122.40947

INSPECTION INFORMATION

Inspection Conducted? Yes ☐ No ☒	Date/Time:	Entry Notice: Announced ☐	Unannounced ☐
Photographs taken?	Yes ☐	No ☒	
Samples collected?	Yes ☐	No ☒	If *Yes*, be sure to include a figure/sketch showing sample locations.

RECOMMENDATION

No Further Action (Check appropriate box below):		**LIST on Confirmed and Suspected Contaminated Sites List:** ☐
Release or threatened release does not pose a threat	☐	
No release or threatened release	☐	
Refer to program/agency (Name: _____)	☐	
Independent Cleanup Action Completed (i.e., contamination removed)	☒	

COMPLAINT (Brief Summary of ERTS Complaint):
An above grond storage tank ruptured and released copper azole product; some of the spilled material impacted an adjacent roadside ditch owned by the Port of Tacoma.

CURRENT SITE STATUS (Brief Summary of why Site is recommended for Listing or NFA):
Copper impacted soil was removed from the ditch.

Investigator: S. Bell	Date Submitted: 12.11.14

OBSERVATIONS

Description (please be sure to include the following: site observations, site features and cover, chronology of events, sources/past practices likely responsible for contamination, presence of water supply wells and other potential exposure pathways, etc.):

McFarland Cascade Pole Company (MCPC) is located along the east side of the Puyallup River on 43 acres in an industrial area of the Tacoma Tideflats. This area is dominated by shallow groundwater and uplands comprised of dredge spoils. The spill addressed in this report occurred on the east side of the MCPC site, about 1700 feet east of the Puyallup River.

Treated wood products such as utility poles and decking have been made at this location since 1974. Hazardous materials associated with this business activity include arsenic, copper, chromium, pentachlorophenol, polycyclic aromatic hydrocarbons and other SVOCs, as well as petroleum products. Releases of these hazardous materials in the past have contaminated both soil and groundwater at this location. MCPC is on Ecology's list of contaminated sites (the FSID is 1222) and has undergone environmental investigations and interim site cleanups over the past 20 years. Greg Caron is the current Ecology Site Manager and he can be contacted at 509/454-7893.

On May 30, 2014, a 45,000 gallon above ground storage tank (AST) containing 0.3% copper azole liquid product ruptured at the vent line near the bottom of the tank. The copper azole product was released with most of the volume contained on site in the bermed tank farm. About 5 gallons or less was estimated to have entered the two storm water catch basins on site. The catch basins are plumbed to the site's storm water treatment system which was turned off, preventing any release from the treatment system to the municipal storm water system. City of Tacoma personnel responded to the scene and collected water samples at the juncture point between the treatment system and their storm water system. The sampling results verified that the municipal system was unaffected by this release.

The volume of the spill overwhelmed a section of the berm resulting in a loss of 300 to 500 gallons of copper azole product to a storm water ditch owned by the Port of Tacoma (POT). The ditch borders the north side of the subject site, along an un-named road that extends north from Lincoln Avenue and provides access to the marine terminals at the end of the road. The impacted ditch provides drainage to the marine terminal access road and connects to the Lincoln Avenue ditch drainage system. The ditch was impacted along a length of about 150 feet, per the City of Tacoma inspection report. The impact to the POT ditch is the sole focus of this ERTS and initial investigation.

The following cleanup information has been distilled from communications with MCPC and their CA-Response Summary-Site Assessment-Closure Report, dated August 26, 2014.

According to MCPC, liquid product was removed from the ditch within 5 hours. NRC was brought in to remediate the impact to soil. MCPC described the impact area as marked by blue staining from the copper azole product, measuring approximately 2 feet wide along a length of 172 feet in the ditch. The excavation area within the ditch was 192 feet long, and 4 to 6 feet wide (no depths were provided). In addition, one foot of soil was removed from the flow path between the fence line and the ditch in an area measuring 15 by 30 feet. Soil samples were collected from 15 locations within the ditch. A background sample was collected from an upgradient location within the ditch and another from an upland area on the opposite side of the access road. All samples were analyzed for copper. Analytical results for the sample locations within the ditch ranged from 76 to 1040 mg/kg. The background sample result for the upland area on the other side of the road was 52.8 mg/kg copper and the background sample result for the upgradient ditch location was 128 mg/kg copper.

The MTCA Method A cleanup levels do not include copper, so several sources were used to derive one. The usual approach within an initial investigation is to use background levels or the reporting limit for the contaminant of concern when a cleanup level has not been established. Ecology has published metal background values (*Natural Background Soil Metals Concentrations in WA State, Pub #94-115, 10/94)* suitable for use in this case. See the table below which also includes the protective value for soil from Table 749-3 (TEE screening value), and the results of the background samples collected from the site.

Copper (mg/kg)	90th % Background Level	TEE screening value	Direct Sampling
	Statewide = 36.01	50	BG-1 (ditch) = 128
	Puget Sound = 36.06		BG-2 (upland) = 52.3
	Western WA = 43.23		

Based on the above numbers, a cleanup level of 52 mg/kg for copper at this site was selected, with agreement from Cris Matthews and Ted Benson at Ecology, and Greg Caron the Ecology Site Manager. Additional factors influencing the selection of this cleanup level included the proximity and ultimate discharge to Commencement Bay and the sensitivity of marine biota to copper contamination. MCPC countered with an argument to use 146 mg/kg as a cleanup level, and Cris Matthews agreed to that.

Two subsequent soil removal events were required to meet the 146 mg/kg copper cleanup level within the ditch and from the upper slope. A total of 48.29 tons of contaminated soil was brought to LRI for disposal. Cris Matthews responded to an email from Ted Smith at MCPC that no further action was required.

(fill in contaminant matrix below with appropriate status choice from the key below the table)

CONTAMINANT GROUP	CONTAMINANT	SOIL	GROUNDWATER	SURFACE WATER	AIR	BEDROCK	DESCRIPTION
Non-Halogenated Organics	Phenolic Compounds						Compounds containing phenols (Examples: phenol; 4-methylphenol; 2-methylphenol)
	Non-Halogenated Solvents						Organic solvents, typically volatile or semi-volatile, not containing any halogens. To determine if a product has halogens, search HSDB (http://toxnet.nlm.nih.gov/cgi-bin/sis/htmlgen?HSDB) and look at the Chemical/Physical Properties, and Molecular Formula. If there is not a Cl, I, Br, F in the formula, it's not halogenated. (Examples: acetone, benzene, toluene, xylenes, methyl ethyl ketone, ethyl acetate, methanol, ethanol, isopropranol, formic acid, acetic acid, stoddard solvent, Naptha). *Use this when TEX contaminants are present independently of gasoline.*
	Polynuclear Aromatic Hydrocarbons (PAH)						Hydrocarbons composed of two or more benzene rings.
	Tributyltin						The main active ingredients in biocides used to control a broad spectrum of organisms. Found in antifouling marine paint, antifungal action in textiles and industrial water systems. (Examples: Tributyltin; monobutyltin; dibutyltin)
	Methyl tertiary-butyl ether						MTBE is a volatile oxygen-containing organic compound that was formerly used as a gasoline additive to promote complete combustion and help reduce air pollution.
	Benzene						Benzene
	Other Non-Halogenated Organics						Other Non-Halogenated Organics (Example: Phthalates)
	Petroleum Diesel						Petroleum Diesel
	Petroleum Gasoline						Petroleum Gasoline
	Petroleum Other						Crude oil and any fraction thereof. Petroleum products that are not specifically Gasoline or Diesel.
Halogenated Organics (see notes at bottom)	PBDE						Polybrominated di-phenyl ether
	Other Halogenated Organics						Other organic compounds with halogens (chlorine, fluorine, bromine, iodine). search HSDB (http://toxnet.nlm.nih.gov/cgi-bin/sis/htmlgen?HSDB) and look at the Chemical/Physical Properties, and Molecular Formula. If there is a Cl, I, Br, F in the formula, it is halogenated. (Examples: Hexachlorobutadiene; hexachlorobenzene; pentachlorophenol)
	Halogenated solvents						Solvents containing halogens (Halogen is typically chlorine, but can also be fluorine, bromine, iodine), and their breakdown products (Examples: Trichloroethylene; Tetrachloroethylene (aka Perchloroethylene); TCE; TCA; trans and cis 1,2 dichloroethylene; vinyl chloride)
	Polychlorinated Biphenyls (PCB)						Any of a family of industrial compounds produced by chlorination of biphenyl, noted primarily as an environmental pollutant that accumulates in animal tissue with resultant pathogenic and teratogenic effects
	Dioxin/dibenzofuran compounds (see notes at bottom)						A family of more than 70 compounds of chlorinated dioxins or furans. (Examples: Dioxin; Furan; Dioxin TEQ; PCDD; PCDF; TCDD; TCDF; OCDD; OCDF). *Do not use for 'dibenzofuran', which is a non-chlorinated compound that is detected using the semivolatile organics analysis 8270*
Metals	Metals - Other	RB					Metals other than arsenic, lead, or mercury. (Examples: cadmium, antimony, zinc, copper, silver)
	Lead						Lead
	Mercury						Mercury

CONTAMINANT GROUP	CONTAMINANT	SOIL	GROUNDWATER	SURFACE WATER	AIR	BEDROCK	DESCRIPTION
	Arsenic						Arsenic
Pesticides	Non-halogenated pesticides						Pesticides without halogens (Examples: parathion, malathion, diazinon, phosmet, carbaryl (sevin), fenoxycarb, aldicarb)
	Halogenated pesticides						Pesticides with halogens (Examples: DDT; DDE; Chlordane; Heptachlor; alpha-beta and delta BHC; Aldrin; Endosulfan, dieldrin, endrin)
Other Contaminants	Radioactive Wastes						Wastes that emit more than background levels of radiation.
	Conventional Contaminants, Organic						Unspecified organic matter that imposes an oxygen demand during its decomposition (Example: Total Organic Carbon)
	Conventional Contaminants, Inorganic						Non-metallic inorganic substances or indicator parameters that may indicate the existence of contamination if present at unusual levels (Examples: Sulfides, ammonia)
	Asbestos						All forms of Asbestos. Asbestos fibers have been used in products such as building materials, friction products and heat-resistant materials.
	Other Deleterious Substances						Other contaminants or substances that cause subtle or unexpected harm to sediments (Examples: Wood debris; garbage (e.g., dumped in sediments))
	Benthic Failures						Failures of the benthic analysis standards from the Sediment Management Standards.
	Bioassay Failures						For sediments, a failure to meet bioassay criteria from the Sediment Management Standards. For soils, a failure to meet TEE bioassay criteria for plant, animal or soil biota toxicity.
Reactive Wastes	Unexploded Ordinance						Weapons that failed to detonate or discarded shells containing volatile material.
	Other Reactive Wastes						Other Reactive Wastes (Examples: phosphorous, lithium metal, sodium metal)
	Corrosive Wastes						Corrosive wastes are acidic or alkaline (basic) wastes that can readily corrode or dissolve materials they come into contact with. Wastes that are highly corrosive as defined by the Dangerous Waste Regulation (WAC 173-303-090(6)). (Examples: Hydrochloric acid; sulfuric acid; caustic soda)

Status choices for contaminants	
Contaminant Status	**Definition**
B - Below Cleanup Levels (Confirmed)	The contaminant was tested and found to be below cleanup levels. (Generally, we would not enter each and every contaminant that was tested; for example if an SVOC analysis was done we would not enter each SVOC with a status of "below". We would use this for contaminants that were believed likely to be present but were found to be below standards when tested
S - Suspected	The contaminant is suspected to be present; based on some knowledge about the history of the site, knowledge of regional contaminants, or based on other contaminants known to be present
C - Confirmed Above Cleanup Levels	The contaminant is confirmed to be present above any cleanup level. For example - above MTCA method A, B, or C; above Sediment Quality Standards; or above a presumed site-specific cleanup level (such as human health criteria for a sediment contaminant).
RA - Remediated - Above	The contaminant was remediated, but remains on site above the cleanup standards (for example - capped area).
RB - Remediated - Below	The contaminant was remediated, and no area of the site contains this contaminant above cleanup standards (for example - complete removal of contaminated soils).

Halogenated chemicals and solvents: Any chemical compound with chloro, bromo, lodo or fluoro is halogenated; those with eight or fewer carbons are generally solvents (e.g. halogenated methane, ethane, propane, butane, pentane, hexane, heptane or octane) and may also be used for or registered as pesticides or fumigants. Most are dangerous wastes, either listed or categorical. Organic compounds with more carbons are almost always halogenated pesticides or a contaminant or derivitive. Referral to the HSDB is recommended you are unfamiliar with a chemical name or compound, as it contains useful information about synonyms, uses, trade names, waste codes, and other regulatory information about most toxic or potentially toxic chemicals.

Dibenzodioxins and dibenzofurans are normalized to a combined equivalent toxicity based on 2,3,7,8-tetrachloro-p-dibenzodioxin as set out in Ch. 173-340-708(8)(d) and in the Evaluating the Toxicity and Assessing the Carcinogenic Risk of Environmental Mixtures using Toxicity Equivalency Factors Focus Sheet (https://fortress.wa.gov/ecy/clarc/FocusSheets/tef.pdf). Results may be reported as individual compounds and isomers (usually lab results), or as a toxic equivalency value (reports).

FOR ECOLOGY USE ONLY (For Listing Sites):

How did the Site come to be known: ☐ **Site Discovery (received a report):** _____ (Date Report Received)
☐ **ERTS Complaint**
☐ **Other (please explain):** _____

Does an Early Notice Letter need to be sent: ☐ Yes ☐ No
If *No*, please explain why: _____

NAICS Code (if known): _____
Otherwise, briefly explain how property is/was used (i.e., gas station, dry cleaner, paint shop, vacant land, etc.):
_____

Site Unit(s) to be created (Unit Type): ☐ Upland (includes VCP & LUST) ☐ Sediment

If multiple Units needed, please explain why: _____

Cleanup Process Type (for the Unit): ☐ No Process ☐ Independent Action
☐ Voluntary Cleanup Program ☐ Ecology-supervised or conducted
☐ Federal-supervised or conducted

Site Status: ☐ Awaiting Cleanup ☐ Construction Complete – Performance Monitoring
☐ Cleanup Started ☐ Cleanup Complete – Active O&M/Monitoring
☐ No Further Action Required

Site Manager (Default: Southwest Region): _____

Specific confirmed contaminants include:

_____ in Soil

_____ in Groundwater

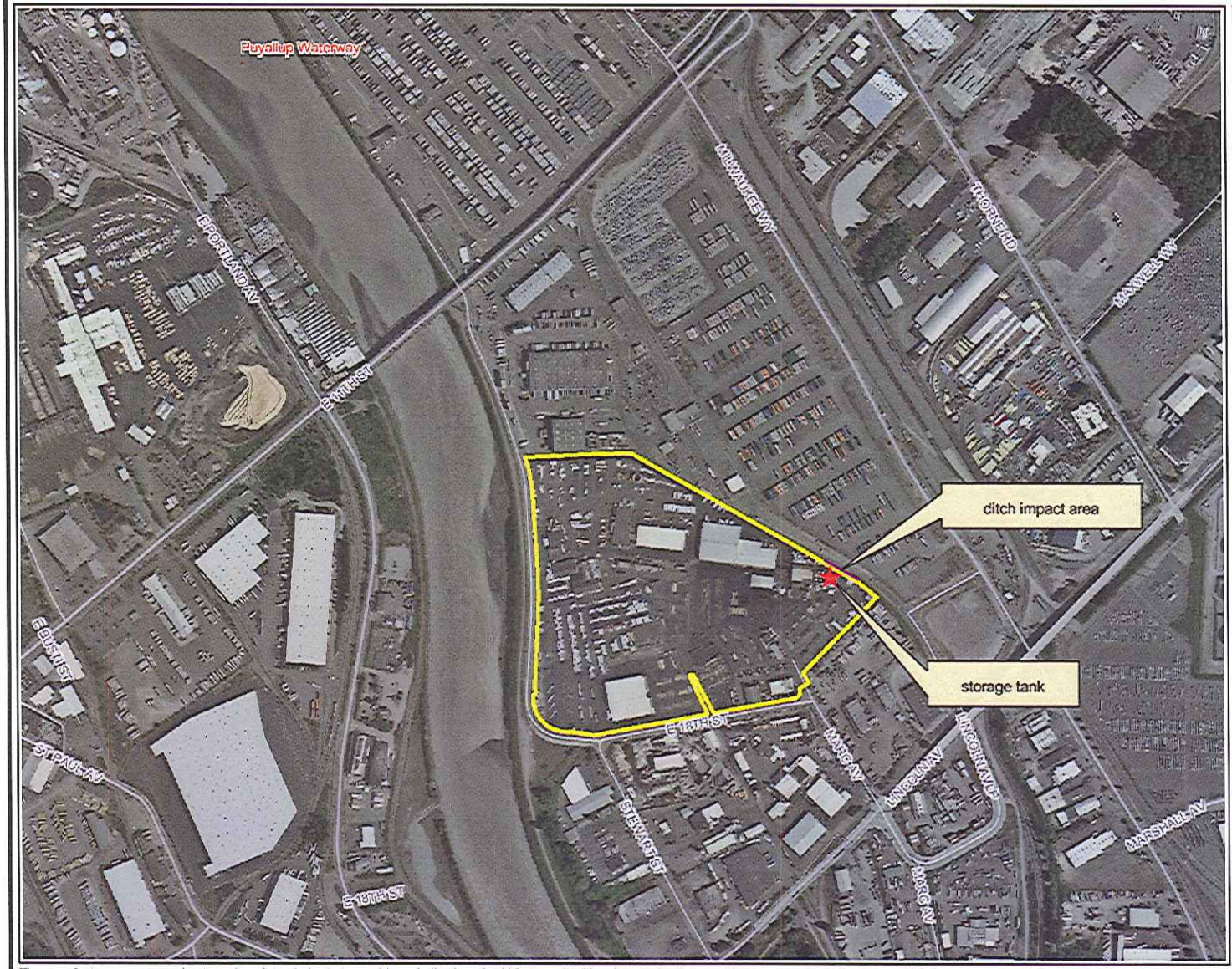
_____ in Other (specify matrix: _____)

Facility/Site ID No. (if known):
_____

COUNTY ASSESSOR INFO:

Please attach to this report a copy of the tax parcel/ownership information for each parcel associated with the site, as well as a parcel map illustrating the parcel boundary and location.

ERTS 649074, McFarland Cascade Pole Company, 1640 Marc Avenue



Map Legend

- Geographic Names - USGS
- Highlighted Tax Parcels
- Roads
- Interstate
- Limited Access State Routes
- Other State Routes
- Ramps
- Major Arterial
- Collector
- Local Access
- County - 2011 - Ortho

Scale 1:9,580

0 400 800 ft.

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Tacoma - Pierce County Health Department
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