



THE STATE
of **ALASKA**
GOVERNOR MICHAEL J. DUNLEAVY

**Department of
Environmental Conservation**

DIVISION OF SPILL PREVENTION AND RESPONSE
Contaminated Sites Program

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File: 100.38.264

November 26, 2019

Bryan Lund
Marsh Creek LLC
2000 East 88th Ave.
Anchorage, AK 99507

Re: Decision Document: Vacant Land Tax Lot 2045
Cleanup Complete Determination

Dear Mr. Lund:

The Alaska Department of Environmental Conservation, Contaminated Sites Program (ADEC) has completed a review of the environmental records associated with the Vacant Land Tax Lot 2045 located on Tax Lot 2045, Section 20, Township 1 South, Range 1 West, Fairbanks Meridian in Fairbanks, Alaska. Based on the information provided to date, it has been determined that the contaminant concentrations remaining on site do not pose an unacceptable risk to human health or the environment and no further remedial action will be required unless new information becomes available that indicates residual contaminants may pose an unacceptable risk.

This Cleanup Complete determination is based on the administrative record for the Vacant Land Tax Lot 2045, which is located in the ADEC office in Fairbanks, Alaska. This decision letter summarizes the site history, cleanup actions and levels, and standard site closure conditions that apply.

Site Name and Location:

Vacant Land Tax Lot 2045
South of 30th Avenue, West of Peger Road
Fairbanks, AK 99709

Name and Mailing Address of Contact Party:

Bryan Lund
Marsh Creek LLC
2000 East 88th Ave
Anchorage, AK 99507

ADEC Site Identifiers:

File No.: 100.38.264
Hazard ID.: 26448

Regulatory Authority for Determination:

18 AAC 75

Site Description and Background

The vacant lot described as Fairbanks North Star Borough Tax Lot 2045 contained the outfall of a former injection well being fed from floor drains in the former Kenai Supply building to the east. The

Kenai Supply building on Tax Lot 2047 was subject to a leaking underground storage tank (LUST) cleanup in the 90s (see Hazard ID 24285, ADEC File No. 100.26.036). The LUST cleanup excluded the portions of injection well located on Tax Lot 2045. Sampling on Tax Lot 2045 in 2015 indicated presence of petroleum and solvent contamination originating from the injection well.

Contaminants of Concern

During the site characterization and cleanup activities at this site, samples were collected from soil, groundwater, and surface water and analyzed for gasoline range organics (GRO), diesel range organics (DRO), residual range organics (RRO), volatile organic compounds (VOCs), polycyclic aromatic hydrocarbons (PAHs), and metals. Based on these analyses, the following contaminants were detected above the applicable cleanup levels and are considered Contaminants of Concern at this site:

- DRO
- 1,4-dichlorobenzene
- tetrachloroethylene (PCE)

Cleanup Levels

The method 2 soil cleanup levels for the migration to groundwater pathway apply at this site. PCE and 1,4-dichlorobenzene were found in soil above the soil cleanup levels established in 18 AAC 75.341 Table B1 and DRO was found in soil above the soil cleanup levels established in 18 AAC 75.341 Table B2. Groundwater cleanup levels are established in 18 AAC 75.345 Table C.

Table 1 – Approved Cleanup Levels

Contaminant	Soil (mg/kg)	Groundwater (µg/L)
DRO	250	1,500
1,4-dichlorobenzene	0.037	4.8
PCE	0.19	41

mg/kg = milligrams per kilogram
µg/L = micrograms per liter

Characterization and Cleanup Activities

Between 1989 and 1998 site characterization and cleanup occurred on the adjacent tax lot 2047, home to the Kenai Supply building. An underground storage tank had contaminated soils and groundwater with petroleum. The tank was removed along with accessible contaminated soils and an air sparge and soil vapor extraction system was deployed to treat the remaining contamination. The Kenai Supply building LUST site received a no further action determination from the Department in 1998. During the course of the remedial investigations a floor drain and piping were discovered in the Kenai Supply building which discharged into the lot to the west, the vacant property known as Tax Lot 2045. This floor drain received waste from motor vehicle maintenance and discharged it to the subsurface, classifying it as a Class V injection well. The floor drain was closed and all piping on tax lot 2047 was removed, with the remaining piping on tax lot 2045 cut off at the property line. The injection well closure was approved by the United States Environmental Protection Agency (EPA) in 1995.

In 2015 Travis Peterson Environmental Consulting Inc. mobilized to Tax lot 2045 to investigate what remained of the closed injection well. During excavation no evidence of the injection well structure was found as the, piping, crib, leach rock and any other features seemed to have been removed and replaced with clean fill at some point since the initial investigation. Contaminated soil was found in the vicinity of the former injection well area. After consultation with ADEC, Travis Peterson continued excavation to clean limits and collected samples from the excavation and stockpiles.

Samples from the contaminated stockpile contained DRO, PCE and 1,4-dichlorobenzene above the approved cleanup levels. Samples from smear zone soils at the base of the excavation at 7 feet below ground surface (ft bgs) exceeded the migration to groundwater cleanup level for DRO at 320 mg/kg and contained detectable quantities of PCE and 1,4-dichlorobenzene below the cleanup levels. A total of 36 tons of contaminated soil was transported to OIT, Inc. in Moose Creek, Alaska for thermal remediation.

In 2017, three monitoring wells were installed surrounding the injection well area to investigate impacts to groundwater. During monitoring well installation soil samples collected from the groundwater interface did not contain detectable quantities of any contaminants. All three wells were sampled in 2017 and 2019. Diesel range organics were detected below cleanup levels. No other contaminants of concern were found in detectable quantities in groundwater.

Cumulative Risk Evaluation

Pursuant to 18 AAC 75.325(g) when detectable contamination remains on-site following a cleanup, a cumulative risk determination must be made that the risk from hazardous substances does not exceed a cumulative carcinogenic risk standard of 1 in 100,000 across all exposure pathways and does not exceed a cumulative noncarcinogenic risk standard at a hazard index of one across all exposure pathways.

Based on a review of the environmental record, ADEC has determined that residual contaminant concentrations meet the human health cumulative risk criteria for residential land use.

Exposure Pathway Evaluation

Following investigation and cleanup at the site, exposure to the remaining contaminants was evaluated using ADEC's Exposure Tracking Model (ETM). Exposure pathways are the conduits by which contamination may reach human or ecological receptors. ETM results show all pathways to be one of the following: De Minimis Exposure, Exposure Controlled, or Pathway Incomplete. A summary of this pathway evaluation is included in Table 2.

Table 2 – Exposure Pathway Evaluation

Pathway	Result	Explanation
Surface Soil Contact	Pathway Incomplete	Contamination is not present in surface soil (0 to 2 ft bgs).
Sub-Surface Soil Contact	De Minimis Exposure	Soil contaminated with DRO remains in the sub-surface at 7 ft bgs, but is below ingestion cleanup levels.
Inhalation – Outdoor Air	De Minimis Exposure	Soil contaminated with DRO remains in the sub-surface at 7 ft bgs, but is below inhalation cleanup levels.

Inhalation – Indoor Air (vapor intrusion)	De Minimis Exposure	No structures exist on site and contaminants are not found at concentrations expected to impact future construction.
Groundwater Ingestion	De Minimis Exposure	Contamination remains in groundwater but is below the groundwater cleanup levels.
Surface Water Ingestion	Pathway Incomplete	Surface water has not been impacted.
Wild and Farmed Foods Ingestion	Pathway Incomplete	Contamination is not impacting an area where wild or farmed foods could be impacted
Exposure to Ecological Receptors	Pathway Incomplete	Contamination is not impacting an area where ecological receptors could be impacted.

Notes to Table 2: “De Minimis Exposure” means that in ADEC’s judgment receptors are unlikely to be adversely affected by the minimal volume or concentration of remaining contamination. “Pathway Incomplete” means that in ADEC’s judgment contamination has no potential to contact receptors. “Exposure Controlled” means there is an institutional control in place limiting land or groundwater use and there may be a physical barrier in place that prevents contact with residual contamination.

ADEC Decision

Soil and groundwater contamination at the site have been cleaned up to concentrations below the approved cleanup levels suitable for residential land use. This site will receive a “Cleanup Complete” designation on the Contaminated Sites Database, subject to the following standard conditions.

Standard Conditions

1. Any proposal to transport soil or groundwater from a site that is subject to the site cleanup rules or for which a written determination from the department has been made under 18 AAC 75.380(d)(1) that allows contamination to remain at the site above method two soil cleanup levels or groundwater cleanup levels listed in Table C requires DEC approval in accordance with 18 AAC 75.325(i). A “site” as defined by 18 AAC 75.990 (115) means an area that is contaminated, including areas contaminated by the migration of hazardous substances from a source area, regardless of property ownership. See attached figure.
2. Movement or use of contaminated material in a manner that results in a violation of 18 AAC 70 water quality standards is prohibited.
3. Groundwater throughout Alaska is protected for use as a water supply for drinking, culinary and food processing, agriculture including irrigation and stock watering, aquaculture, and industrial use. Contaminated site cleanup complete determinations are based on groundwater being considered a potential drinking water source. In the event that groundwater from this site is to be used for other purposes in the future, such as aquaculture, additional testing and treatment may be required to ensure the water is suitable for its intended use.

This determination is in accordance with 18 AAC 75.380 and does not preclude ADEC from requiring additional assessment and/or cleanup action if future information indicates that contaminants at this site may pose an unacceptable risk to human health, safety, or welfare or to the environment.

Appeal

Any person who disagrees with this decision may request an adjudicatory hearing in accordance with 18 AAC 15.195 – 18 AAC 15.340 or an informal review by the Division Director in accordance with 18 AAC 15.185. Informal review requests must be delivered to the Division Director, 555 Cordova Street, Anchorage, Alaska 99501-2617, within 20 days after receiving the department's decision reviewable under this section. Adjudicatory hearing requests must be delivered to the Commissioner of the Department of Environmental Conservation, 410 Willoughby Avenue, Suite 303, P.O. Box 111800, Juneau, Alaska 99811-1800, within 30 days after the date of issuance of this letter, or within 30 days after the department issues a final decision under 18 AAC 15.185. If a hearing is not requested within 30 days, the right to appeal is waived.

If you have questions about this closure decision, please feel free to contact me at (907) 451-5174 or via email at michael.hooper@alaska.gov

Sincerely,

A handwritten signature in blue ink that reads "Michael Hooper". The signature is written in a cursive style with a large, stylized "H" and "O".

Michael Hooper
Project Manager

Enclosures: Figure 1 – Area of remaining subsurface contamination

cc: Spill Prevention and Response, Cost Recovery Unit

Figure 1) Area of remaining subsurface contamination, adapted from figure in 2016 Site Characterization Report (TPECI)

