



April 24, 2019

Mr. Jim Hunt
City of Whittier
PO Box 608
Whittier, AK 99693

Re: **Decision Document: Whittier Small Boat Harbor Dredge Stockpile
Cleanup Complete Determination**

Dear Mr. Hunt,

The Alaska Department of Environmental Conservation, Contaminated Sites Program (ADEC) has completed a review of the environmental records associated with the Whittier Small Boat Harbor Dredge Stockpile located on Harbor Road near the railroad tunnel entrance in Whittier. 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 Whittier Small Boat Harbor Dredge Stockpile, which is located in the ADEC office in Anchorage, Alaska. This decision letter summarizes the site history, cleanup actions and levels, and standard site closure conditions that apply.

Site Name and Location:

Whittier Small Boat Harbor Dredge Stockpile
Harbor Road
Whittier, AK, 99693

Name and Mailing Address of Contact Party:

City of Whittier
PO Box 608
Whittier, AK, 99693

DEC Site Identifiers:

File No.: 2114.38.020
Hazard ID.: 25647

Regulatory Authority for Determination:

18 AAC 75

Site Description and Background

The small boat harbor dredging project was originally permitted by the US Army Corps of Engineers (USACE) for an in-water disposal of dredge spoils. Hydrocarbon contamination of the materials being dredged was apparent, due to the heavy sheen on the water following a disturbance of material. The contamination likely originated from the large fuel spills that occurred as a result of the 1964 earthquake and tsunami. A sorbent boom was deployed for the duration of the project and approximately 15,000-20,000

cubic yards of diesel contaminated dredged materials were stockpiled on property near the Whittier Tunnel entrance. The small boat harbor area is managed under file 2114.38.017.

Contaminants of Concern

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

- DRO

Cleanup Levels

The soil cleanup levels that apply to this site are the Method 2 Migration to Groundwater cleanup levels established in 18 AAC 75.341(c), Table B1, and 18AAC 75.341(d), Table B2.

Table 1 – Approved Cleanup Levels

Contaminant	Soil (mg/kg)
DRO	250

mg/kg = milligrams per kilogram

mg/L = milligrams per liter

ug/L = micrograms per liter

Characterization and Cleanup Activities

In 2011 a 20,000 cubic yard stockpile was generated during dredging operations associated with the Whittier Small Boat Harbor Improvements Project. The stockpile was constructed on top of an impermeable liner, with an addition liner covering the pile. The top liner was then covered with approximately six inches of clean soil to hold the liner in place. The soils mainly consist of gravel and sandy silt, and the depth of the soil ranges from 17 to 22 feet.

The ADEC inspected the stockpile in 2011 and found that it was well constructed with no indication of contaminant migration from stockpiled soils.

In 2012 boreholes were advanced in 10 locations throughout the stockpile. Three analytical soil samples were collected from each borehole at depth ranging from surface to 2 feet above ground level. Samples were not collected at ground level in order to not risk puncturing the bottom liner. Samples were collected from the areas of most likely contamination, based on field screening with a photo-ionization detector. Samples were analyzed for DRO, GRO, RRO, and BTEX, and did not contain contaminant concentrations above ADEC Cleanup Levels.

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 non-carcinogenic 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	De-Minimis Exposure	Remaining contamination is below most stringent cleanup levels.
Sub-Surface Soil Contact	De-Minimis Exposure	Remaining contamination is below most stringent cleanup levels.
Inhalation – Outdoor Air	De-Minimis Exposure	Contaminant concentrations remaining are below Table B-2 Inhalation Levels.
Inhalation – Indoor Air (vapor intrusion)	Pathway Incomplete	Contaminant concentrations did not exceed ADEC target levels and no vapor intrusion investigation was warranted.
Groundwater Ingestion	Pathway Incomplete	Contamination is below most stringent cleanup levels, and was placed on an impermeable liner preventing migration to groundwater.
Surface Water Ingestion	Pathway Incomplete	Surface water is not used as a drinking water source in the vicinity of the site.
Wild and Farmed Foods Ingestion	Pathway Incomplete	Contaminants of concern do not have the potential to bioaccumulate in plants or animals.
Exposure to Ecological Receptors	Pathway Incomplete	Ecological receptors are not expected to be exposed to the contamination.

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 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.

2. Movement or use of contaminated material in a manner that results in a violation of 18 AAC 70 water quality standards is prohibited. Although contaminant concentrations are below ADEC cleanup levels, this material may cause a sheen when in contact with surface water.
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. Use of the stockpiled soil in a manner that may affect other non-drinking water uses of groundwater may require additional testing and treatment 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) 269-7522, or email at Chelsy.Passmore@alaska.gov

Sincerely,



Chelsy Passmore
Project Manager

cc: Cost Recovery Unit (electronic)