THE STATE of ALASKA
GOVERNOR MIKE DUNLEAVY

Department of Environmental Conservation

DIVISION OF SPILL PREVENTION AND RESPONSE
Contaminated Sites Program

555 Cordova St.
Anchorage, AK 99501
Phone: (907) 269-7558
Fax: (907) 269-7649
www.dec.alaska.gov

May 23, 2024 DEC File No: 2100.38.534

Four Seasons LLC
c/o W. Dean Weidner
9757 Juanita Drive NE #300
Kirkland, WA 98034

Re: Decision Document: Four Seasons Mobile Home Park
Cleanup Complete Determination

Dear Mr. Weidner:

The Alaska Department of Environmental Conservation, Contaminated Sites Program (ADEC) has completed a review of the environmental records associated with the Four Seasons Mobile Home Park located at 5901 E. 6th Ave in Anchorage. 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 information becomes available that indicates residual contaminants may pose an unacceptable risk.

This Cleanup Complete determination is based on the administrative record for the Four Seasons Mobile Home Park maintained by ADEC. This decision letter summarizes the site history, cleanup actions and levels, and site closure conditions that apply.

Site Name and Location:
Four Seasons Mobile Home Park
5901E. 6th Ave
Anchorage, AK 99504

Name and Mailing Address of Contact Party:
Four Seasons LLC
9757 Juanita Drive NE #300
Kirkland, WA 98034

ADEC Site Identifiers:
File No.: 2100.38.534
Hazard ID.: 25921

Regulatory Authority for Determination:
18 Alaska Administrative Code (AAC) 75

Site Description and Background
A 2,500-gallon above ground storage tank (AST) and accompanying gravity-fed underground piping distribution system was used to heat the Four Seasons Mobile Home Park in the 1960s and 1970s. The distribution system included six east-west fuel lines between mobile home rows from Birchwood Ave. in the south to Honeysuckle Ave. and from the unnamed road bordering the back of the residences on Peppertree Loop to Newell. The distribution system was abandoned in place and it is not known if the piping was emptied before it was no longer in use. Releases from the underground distribution system were discovered

in 2012. Initial investigations and cleanup resulted in closure of the site in 2014, but the site was reopened shortly thereafter when additional areas of groundwater and soil contamination were discovered along Fleetwood Ave.

Additional details on activities conducted between 2012 and 2014 are available in the Cleanup Complete Determination dated May 15, 2014 and available at the following URL:
https://dec.alaska.gov/Applications/SPAR/PublicMVC/CSP/SiteReport/25921

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

- GRO
- DRO
- Benzene
- Toluene
- Ethylbenzene
- Xylenes
- 1,2,4-Trimethylbenzene
- Naphthalene
- 2-Methylnaphthalene

Cleanup Levels
Soil cleanup levels applicable to the site are the most stringent Method 2 cleanup levels for the under 40-inches of precipitation climate zone found in 18 AAC 75.341(c), Table B1 and 18 AAC 75.341(d), Table B2. Groundwater cleanup levels applicable to this site are found in 18 AAC 75.345, Table C.

Table 1 – Approved Cleanup Levels

Contaminant	Soil (mg/kg)	Groundwater (µg/L)
GRO	300	2,200
DRO	250	1,500
Benzene	0.022	4.6
Toluene	6.7	1,100
Ethylbenzene	0.13	15
Xylenes (total)	1.5	190
1,2,4- Trimethylbenzene	0.61 (43)	56
Naphthalene	0.038 (29)	1.7
2-Methylnaphthalene	1.3 (310)	36

Notes:
1. mg/kg = milligrams per kilogram
2. µg/L = micrograms per liter

Characterization and Cleanup Activities

A Phase I Environmental Site Assessment (ESA) in June 2012 identified surficial staining and the remnants of the heating oil distribution system. The Phase I ESA recommended investigation, removal, and cleanup of the over 6,000 feet of piping and removal surface petroleum stains which began in September 2012.

Areas with identified soil stains were excavated and 20.32 tons of contaminated soil was disposed at Alaska Soil Recycling (ASR). Confirmation samples demonstrated successful removal of the petroleum-stained soil. Investigation and cleanup of the over 6,000 feet of piping also began in September 2012. Between 2012 and 2013, approximately 5,300 tons of contaminated soil was excavated and and thermally treated at ASR. Confirmation sampling indicated soil above the migration to groundwater cleanup levels had been excavated with a few exceptions.

Onsite drinking water wells were sampled in 2013 and no contaminants were detected. The site was then closed in May 2014 but following discovery of contaminated soil during a utility excavation near Fleetwood Ave. the site was reopened in September 2014. After the site was re-opened over 3,690 tons of contaminated soil was removed along Fleetwood Ave. and the unnamed road bordering the east side of the site, and sent to ASR for treatment. Confirmation soil sample results indicated soil above the migration to groundwater cleanup levels had been removed, with the exception of the eastern sidewall of the excavation, at depths of 10 to 13.5 feet below ground surface. A utility corridor was located along the eastern sidewall of the excavation, and additional removal in this area was limited by the presence of numerous underground utilities.

To evaluate impacts to groundwater, four monitoring wells were installed north of Fleetwood Ave in 2015. The wells were sampled three times in 2015, during each sampling event groundwater exceeded the cleanup level for DRO, which was detected up to 26.8 mg/L. To facilitate the installation of utilities in 2015, four dewatering wells were installed along the eastern side of the site. Approximately 1.4 million gallons of water was removed and treated prior to discharge to the sanitary sewer system. Samples collected during three consecutive monitoring events were below cleanup levels, suggesting the dewatering effort resulted in reduced petroleum concentrations in groundwater and DEC approved decommissioning of the wells. Groundwater flow was generally to the north or northwest during the groundwater sampling efforts.

In 2021 site characterization was conducted on off-site properties located at 330 and 340 Peppertree Loop to delineate the extent of contamination in this area. Thirteen soil borings were advanced at 330 and 340 Peppertree Loop and three borings were completed as temporary groundwater monitoring wells. Soil and groundwater were analyzed for GRO, DRO, RRO, VOC, and PAH. Groundwater was sampled in each temporary well point following installation One soil boring had detections of naphthalene in soil above the cleanup level at 13.5 and 17 bgs; all other detections in groundwater and soil were below the most stringent cleanup levels. The 2021 characterization suggested there had been very little migration of contaminants to these properties.

Cumulative Risk Evaluation

Pursuant to18 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 (HI) of 1 across all exposure pathways.

Based on a review of the environmental record, DEC 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 DEC'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	Contamination is not present in surface soil (0 to 2 feet below ground surface).
Subsurface Soil Contact	De Minimis Exposure	Contamination remains in the subsurface below human health (inclusive of direct contact) and ingestion levels in 18 AAC 75.341, Tables B1 and B2.
Inhalation – Outdoor Air	Pathway Incomplete	Volatile compounds capable of causing risk via this pathway are not present at the site
Inhalation – Indoor Air (vapor intrusion)	Pathway Incomplete	Groundwater contaminant data did not contain concentrations above vapor intrusion screening levels.
Groundwater Ingestion	De Minimis Exposure	Groundwater sample results show contaminant concentration below 18 AAC 75.345, Table C values.
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	There are no complete exposure pathways to ecological receptors at the site.

Notes:

1. "De Minimis Exposure" means that, in DEC's judgment, the receptors are unlikely to be adversely affected by the minimal volume or concentration of remaining contamination.
2. "Pathway Incomplete" means that, in DEC's judgment, the contamination has no potential to contact receptors.
3. "Exposure Controlled" means there is an IC in place limiting land or groundwater use and there may be a physical barrier in place that prevents contact with residual contamination.

DEC 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.

DEC approval is required for movement and disposal of soil and/or groundwater subject to the Site Cleanup Rules, in accordance with 18 AAC 75.325(i). Please contact DEC for information about applicable regulations and requirements. A "site", as defined by 18 AAC 75.990, means an area that is contaminated, including areas contaminated by the migration of hazardous substances from a source area, regardless of property ownership.

Movement or use of contaminated material in an ecologically sensitive area or in a manner that results in a violation of 18 AAC 70 water quality standards is prohibited. Furthermore, 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. If, in the future, groundwater from this site is to be used for other purposes, 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 DEC from requiring additional assessment and/or cleanup action if information indicates that contaminants at this site may pose an unacceptable risk to human health, safety, or welfare or to the environment.

Informal Reviews and Adjudicatory Hearings
A person authorized under a provision of 18 AAC 15 may request an informal review of a contested decision by the Division Director in accordance with 18 AAC 15.185 and/or an adjudicatory hearing in accordance with 18 AAC 15.195 – 18 AAC 15.340. See DEC's "Appeal a DEC Decision" web page https://dec.alaska.gov/commish/review-guidance/ for access to the required forms and guidance on the appeal process. Please provide a courtesy copy of the adjudicatory hearing request in an electronic format to the parties required to be served under 18 AAC 15.200. Requests must be submitted no later than the deadline specified in 18 AAC 15.

If you have questions about this closure decision, please feel free to contact me at (907) 269-3057, or email at bill.oconnell@alaska.gov

Sincerely,

William A O'Connell

Bill O'Connell
Site Cleanup Manager

cc: DEC, Division of Spill Prevention and Response, Cost Recovery Unit