



December 6, 2023

Transmitted via email to: vatk461@ecy.wa.gov

Washington State Department of Ecology
15700 Dayton Avenue North
Shoreline, Washington 98133

Attn: Vance Atkins

**Re: Proposed Modifications to Groundwater Monitoring Program and Removal of Inactive Remediation System Equipment
SeaTac Development Site
16025 International Boulevard, SeaTac, Washington
Project No. 2218001.010**

Dear Mr. Atkins:

On behalf of SeaTac Investments, LLC, and Scarsella Bros., Inc., Landau Associates, Inc. (Landau) has prepared this letter to request the Washington State Department of Ecology's (Ecology's) approval for proposed modifications to the confirmational groundwater monitoring program at the SeaTac Development Site (Site) and for the proposed removal of the inactive air sparging and soil vapor extraction system equipment.

BACKGROUND

After deactivation of the *in situ* air sparging and soil vapor extraction (IAS/SVE) system in July 2020, confirmational groundwater monitoring events have been conducted in accordance with the Compliance Monitoring Plan (CMP) for the Site. The objectives of the confirmational groundwater monitoring are to evaluate the potential rebound of contaminant concentrations after the deactivation of the IAS/SVE system and, if there is minimal rebound, to demonstrate that the contaminant concentrations have been reduced to below the Site cleanup levels or to concentrations that will naturally attenuate to below the cleanup levels within a reasonable time frame.

Quarterly confirmational groundwater monitoring events were completed at the Site in July 2022, October 2022, January 2023, and April 2023. The groundwater sample analytical results from the July 2022, October 2022, and January 2023 monitoring events showed that none of the samples contained chemical of concern (COC) concentrations greater than the Site cleanup levels. The groundwater sample analytical results from the April 2023 monitoring event showed that the samples collected from MW-12 contained gasoline-range organics (GRO) and benzene concentrations (up to 900 and 8.04 micrograms per liter [$\mu\text{g/L}$], respectively) that exceeded the Site cleanup levels (800 and 5 $\mu\text{g/L}$, respectively). The other sampled wells did not contain COC concentrations greater than the cleanup

levels. Based on these results, Landau requested in a letter dated July 14, 2023 (Landau 2023)¹ that Ecology approve of the discontinuation of the groundwater monitoring program and the removal of the IAS/SVE system equipment, citing 1) the localized and stable nature of the remaining groundwater contamination, 2) that natural attenuation (NA) should reduce the remaining GRO and benzene concentrations to below the cleanup levels within a reasonable time frame, and 3) the 2003 restrictive covenant (King County 2003) prevents the use of the groundwater beneath the current MasterPark Lot C property (Landau 2023).

Ecology responded to Landau's requests in a letter dated September 1, 2023 (Ecology 2023). In their letter, Ecology requested 1) continued quarterly groundwater monitoring of only MW-12 for 1 year to evaluate if rebound is occurring at the well location, 2) the preparation of a contingency plan for further remedial action in the vicinity of MW-12 if ongoing noncompliance occurs at this well, and 3) retention of the IAS/SVE system equipment in case it is needed for future remediation at the Site.

PROPOSED MODIFICATIONS TO CONFIRMATIONAL GROUNDWATER MONITORING PROGRAM

On November 20, 2023, representatives from Ecology, SeaTac Investments, LLC, Scarsella Bros., Inc., and Landau met to discuss the requests outlined in Ecology's letter. Based on the results of this discussion, Landau is formally proposing modifications to the groundwater monitoring program and the removal of the inactive IAS/SVE system equipment. We agree to conduct quarterly monitoring at MW-12 for 1 year (the first event was conducted in October 2023) and we propose to conduct the sampling of geochemical parameters at selected wells during the January 2024 monitoring event to obtain the data necessary to evaluate if NA of the remaining COC concentrations is occurring at the Site.

Groundwater monitoring events will be conducted on a quarterly basis from October 2023 (completed) through July 2024. Each monitoring event will consist of measuring the depths to groundwater in the 17 monitoring wells located on the MasterPark Lot C property and on the neighboring parking lot property to the west and northwest, as well as collecting a groundwater sample from MW-12 for laboratory analysis. Each sample from MW-12 will be submitted to Apex Laboratories (Apex) of Tigard, Oregon, for analysis of the Site groundwater COCs (benzene, toluene, ethylbenzene, total xylenes, naphthalene, and n-hexane by US Environmental Protection Agency [EPA] Method 8260D, 1,2-dibromoethane by EPA Method 8260D selected ion monitoring, and GRO by Ecology Method NWTPH-Gx).

To better understand the geochemical conditions of the aquifer in the northwest corner of the MasterPark Lot C property and to evaluate if natural attenuation of the remaining groundwater COCs in the vicinity of MW-12 is occurring, additional groundwater samples will be collected from four selected wells during the January 2024 monitoring event for NA analysis. We tried to identify the wells

¹ An additional quarterly sampling event was completed in late July 2023 at Ecology's request while review of the Landau 2023 letter was completed; results for this event were similar to those from April 2023 and showed that only the sample from MW-12 contained a COC concentration (GRO concentration of 1,050 µg/L) greater than the cleanup levels.

for NA sampling and analysis based on Ecology's Guidance on Remediation of Petroleum-Contaminated Groundwater by Natural Attenuation (Ecology 2005); however, since MW-12 is located along the hydraulically upgradient end of the MasterPark Lot C property, there are no non-impacted wells located hydraulically upgradient of MW-12. Samples for NA analysis will be collected from 1) the well currently impacted by COCs (MW-12), 2) a well located within the previous source area (MW-07) and partially upgradient of MW-12, 3) a well (MW-19) that represents non-impacted groundwater flowing onto the northern end of the MasterPark Lot C property (background conditions but not hydraulically upgradient of MW-12), and 4) a well hydraulically downgradient from MW-12 (MW-17A). There is a component of groundwater flow from MW-07 toward MW-12. The locations of the proposed wells for NA sampling and analysis are shown on Figure 1.

The proposed NA analyses will include parameters measured in the field during purging of the wells and constituents analyzed by Apex. The field parameters will consist of the final pH, conductivity, temperature, dissolved oxygen, turbidity, and oxidation-reduction (redox) potential concentrations prior to collecting each sample (as measured with a water quality probe) and the final ferrous iron concentration (as measured using a Hach® field-testing kit). Apex will analyze each sample for nitrite, nitrate, and sulfate by EPA Method 300.0; ammonia as nitrogen by ASTM International (ASTM) Method SM4500-NH3 G; and total organic carbon by ASTM Method 5310C. The results of the NA sampling will be used to evaluate if natural attenuation of the remaining COC concentrations is occurring and, if it is occurring, to estimate if natural attenuation will reduce the remaining concentrations to below the Site cleanup levels within a reasonable time frame.

PROPOSED REMOVAL OF INACTIVE IAS/SVE SYSTEM EQUIPMENT

In addition to the proposed modifications to the groundwater sampling program, the potential future reactivation of the IAS/SVE system was discussed during the November 2023 meeting with Ecology. The inactive IAS/SVE system equipment is over 10 years old and would require significant repairs prior to reactivation. If any of the COC concentrations in the groundwater samples from MW-12 exceed the Site cleanup levels during the proposed quarterly monitoring, the need for further remedial action will be evaluated. If it is determined that additional remediation is necessary, it would not be cost effective to reactivate the IAS/SVE system because of the aging system components and because the system performance reached asymptotic conditions prior to shutdown in 2020. Instead, the geochemical data collected during the NA monitoring event would be used to develop an *in situ* remedial action such as the injection of chemicals to further enhance the rate of natural attenuation of the remaining groundwater COC concentrations in the vicinity of MW-12. Since it would not be cost effective to repair and reactivate the IAS/SVE system, Landau proposes to remove the inactive IAS/SVE system equipment and haul it off the property for disposal and/or recycling at licensed facilities. The removal of the equipment and enclosure will allow MasterPark to re-open five parking spaces that have been occupied by the enclosure since 2013.

SUMMARY

To further monitor the groundwater conditions at the remaining impacted area of the Site and allow for MasterPark to use the parking spaces occupied by the remediation system equipment enclosure, Landau requests that Ecology approve of the proposed modifications to the groundwater monitoring program and the removal of the inactive IAS/SVE system equipment.

If you have any questions or need any additional information, please contact the undersigned at (206) 707-5199 or mstaton@landauinc.com.

LANDAU ASSOCIATES, INC.



Michael D. Staton, LG
Senior Principal

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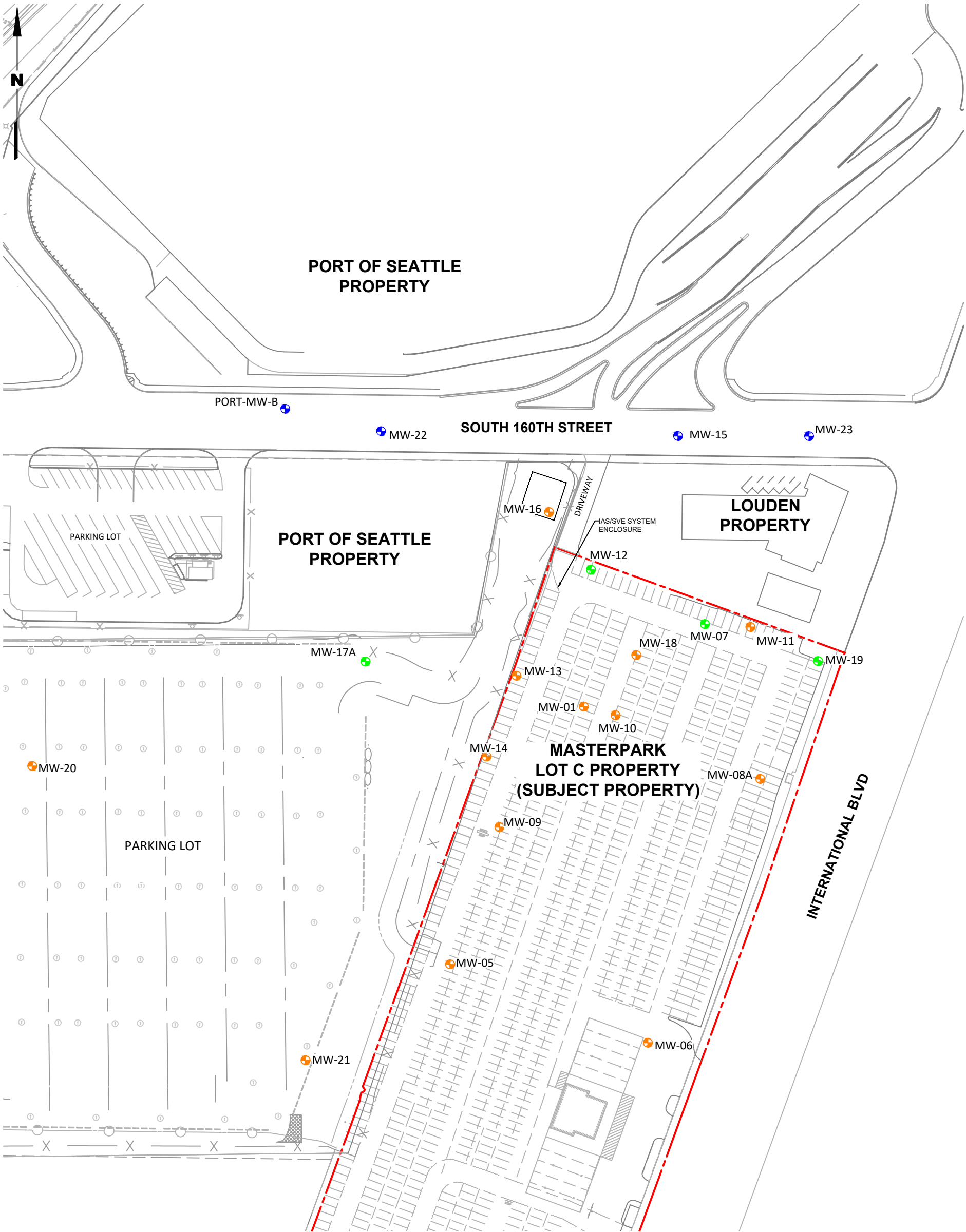
cc: Roger McCracken, SeaTac Investments, LLC
Tamarah Knapp Hancock, Scarsella Bros., Inc.
Nick Scarsella, Scarsella Bros., Inc.

Attachment

Figure 1. Proposed Locations for Natural Attenuation Sampling and Analysis

References

- Ecology. 2023. Letter: Landau's July 14, 2023 Request to Cease Monitoring at the SeaTac Development Site, 16025 International Boulevard, SeaTac, Washington. From Vance Atkins, Washington State Department of Ecology, to Michael Staton, Landau Associates, Inc. September 1.
- Ecology. 2005. Guidance on Remediation of Petroleum-Contaminated Ground Water By Natural Attenuation, Publication No. 05-09-091 (Version 1.0). Washington State Department of Ecology. July.
- King County. 2003. Declaration of Restrictive Covenant. Grantor: Scarsella Limited Partnership. Grantee : State of Washington, Department of Ecology; The Public. County of King, State of Washington. May 6.
- Landau. 2023. Letter: Submittal of Confirmational Groundwater Monitoring Report—April 2023 Sampling Event, SeaTac Development Site. From Michael Stanton, Landau Associates, Inc., to Vance Atkins, Washington State Department of Ecology. July 14.



Legend

- MW-14 SITE MONITORING WELL LOCATION AND DESIGNATION - GROUNDWATER ELEVATIONS MEASURED
- MW-07 SITE MONITORING WELL LOCATION AND DESIGNATION - NATURAL ATTENUATION MONITORING WELL
- MW-22 SITE MONITORING WELL LOCATION AND DESIGNATION
- SUBJECT PROPERTY LINE
- FENCE

Notes

1. BASE MAP BASED ON IAS AND SVE PIPING LAYOUT FIGURE (12/02/15) AND GROUNDWATER MONITORING LOCATIONS MAP (05/01/19) PRODUCED BY GOLDER ASSOCIATES, INC.
2. BLACK AND WHITE REPRODUCTION OF THIS COLOR ORIGINAL MAY REDUCE ITS EFFECTIVENESS AND LEAD TO INCORRECT INTERPRETATION.

Source: SLR, 2023

SeaTac Development Site
SeaTac, Washington

Proposed Locations for
Natural Attenuation Sampling
and Analysis

Figure
1

