



REGION 10

SEATTLE, WA 98101

December 18, 2024

MEMORANDUM

SUBJECT: EPA Comments on Supplementary Groundwater Source Control Evaluation Sampling Work Plan
Willamette Cove, Portland, Oregon
ECSI # 2066
November 14, 2004

FROM: Eva DeMaria, Remedial Project Manager
Superfund and Emergency Management Division

TO: Erin McDonnell, Project Manager
Northwest Region Cleanup Program, Oregon Department of Environmental Quality

The following are the U.S. Environmental Protection Agency's (EPA's) comments on the document titled *Supplementary Groundwater Source Control Evaluation Sampling Work Plan* (Work Plan). The Work Plan was prepared Apex Companies, LLC (Apex) for the Port of Portland and Metro for the Willamette Cove Upland Facility (the Facility). The Facility is listed as Environmental Cleanup Site Information (ECSI) #2066. The 24-acre Facility is located on the east bank of the Willamette River between river miles 6.5 and 7 and is upland of the Willamette Cove remedial design project area within the Portland Harbor Superfund Site (PHSS).

EPA understands the primary objectives of the Work Plan are to summarize existing data and Facility characteristics, present the investigation approach and describe field sampling activities and laboratory analyses to be completed to collect additional groundwater data. The additional groundwater data to be collected under the Work Plan was recommended to be collected in the *Updated Source Control Evaluation* (Updated SCE; Apex 2023). EPA's comments are categorized as "Primary," which identify concerns that must be resolved to achieve the objective; and "To Be Considered," which, if addressed or resolved, would reduce uncertainty, improve confidence in the document's conclusions, and/or best support the objectives.

Primary Comments

1. The goals/objectives for this sampling are too general and should be defined more clearly with data quality objectives for each planned event (e.g. angled borings and offshore borings) aligned with specific evaluations planned after data collection. Absent this, EPA cannot determine if the current work described in the Work Plan will be adequate and appropriate for future evaluations. For example, the Updated SCE (Apex, 2023) presented an evaluation of and conclusions on attenuation from the uplands to the river based on concentrations of groundwater in the upland monitoring wells compared to porewater samples offshore. However, as pointed out in previous EPA primary comment 5 (EPA 2024), the offshore porewater sampling locations were too distant to be representative of the shallower groundwater flow paths that intercept the log pond area and its greater potential for contaminant transport to the river as illustrated in Figure 22 in the Updated SCE and Figure 7 in this Work Plan. The result of the evaluation was a potential biased attribution of the lower concentrations seen in the offshore porewater samples to attenuation when the lower concentrations could potentially be due to much deeper groundwater flow paths, outside the area of upland contamination, captured by those porewater samples. While the Work Plan now includes angled borings with locations that appear to be better aligned with the flow paths to characterize maximum contaminant transport from the log pond, it is unclear what purpose the proposed offshore borings have with future evaluations. Inconsistent with the previous EPA comment request (see EPA primary comment 5, EPA 2024), the offshore borings are not located laterally within 25 feet of the river/shoreline intersect as defined by the 10 foot msl NAVD88 datum. It is probable the deeper discrete sampling depths from these offshore borings will target groundwater flow paths not representative of the highest contaminant concentration pathway from the former log pond area.
2. The dynamic river stage condition at the site should be used to direct the time each discrete sample is collected within the angled riverbank borings to ensure groundwater discharge conditions are present at the time of sampling as opposed to surface water recharge conditions. Optimally, the timing for groundwater sampling within these discrete intervals should target when the river stage is in a seasonal low (or in a lowering condition period) and near, or at its daily, tidally influenced, low point to ensure the samples are most representative of groundwater conditions as opposed to surface water recharge conditions. The Work Plan should include a section that presents the optimal seasonal conditions for sampling groundwater in the angled riverbank boreholes (see the Remedial Design Guidelines and Considerations document, Section 5.1.4 for guidance [EPA, 2021]) and steps the field crew should follow to time the sampling when groundwater discharge conditions are most likely occurring.
3. The Work Plan should clarify that the same purge parameters and methodology presented for Monitoring Wells in Section 5.3.3 will also be used for the grab samples in the riverbank and in-water borings.

To Be Considered

1. The analytical method presented in Section 5.4 for pesticides should include and report DDD, DDE, DDT and DDx results.

References

Apex. 2023. *Updated Groundwater Source Control Evaluation, Willamette Cove Upland Facility, Portland, Oregon.*

EPA. 2021. *Portland Harbor Remedial Design Guidelines and Considerations, Portland, Oregon.*

EPA. 2024. *EPA Comments on Updated Groundwater Source Control Evaluation, Willamette Cove, Portland, Oregon.*