



June 18, 2024

Mr. Beau Johnson  
Site Manager  
Washington State Department of Ecology

Dear Mr. Johnson,

Thank you for the opportunity to review and provide comment on the draft Remedial Investigation (RI) for the Crowley Marine Services 8<sup>th</sup> Ave S Site (Cleanup Site ID 2520) (the Site). We have reviewed the draft RI, and the City disagrees with the assertion that “based on the results of the RI, the Site data (a combination of historical data and RI data) are of sufficient quantity and quality to characterize the nature and extent of the Site-related chemicals” due to data gaps concerning potential Site impacts on the adjacent City right-of-way (ROW). Below, we provide further detail on the identified data gaps, and provide recommendations and requests to further delineate Site releases impacting City ROW.

1. **Site releases associated with the historic sand blast grit dump area:** The draft RI discusses a historic sand blast grit dump area, and the approximate dump site and location of sand blasting are shown in Figures 13 and 3, respectively. While the draft RI shows some sediment sampling performed in the general area of the sand blast grit dump site, the draft RI does not identify soil samples in the area where the potential historic sand blast grit dump overlaps the upland ROW. This data gap should be addressed because ROW sampling could demonstrate Site releases of hazardous substances impacting City ROW. The City requests additional upland sampling for contaminants associated with the historic sand blast grit be performed in the upland portion of the City’s ROW where the dump area is estimated to be located.
  - a. The City performed a Phase II ESA (2023) in the ROW which detected various metals in an area that overlaps the potential historic sand blast grit dump site. These metals included arsenic and lead, which the draft RI identifies as IHSs for the Site.
  - b. The draft RI Executive Summary acknowledges that lateral extents of Site arsenic contamination (in addition to other IHSs), specifically the western extents, have not been delineated: “The lateral and vertical extents of each of the soil IHSs have been delineated, except for the western extents of arsenic, total PCBs, and total D/F TEQ at the western part of Parcel D (at locations near the western border of the Subject Property)...”
  - c. Under Section 7.4, the draft RI states that

The area with the greatest arsenic concentrations occurs in the former pipe and chain manufacturing area (including the sandblast area along the property’s southern shoreline)...

However, the draft RI includes no soil samples in the sandblast area to identify the extent of contamination that may exist in the City ROW. Figures 21-23 show



the potential for Site releases of arsenic in the ROW, but no sampling has been performed to confirm.

2. **Site releases impacting soils in City ROW:** The draft RI shows multiple potential Site releases impacting soils in City ROW; however, the draft RI includes only one soil sampling location in City ROW: EB-56. Generally the extents of site-related chemicals are delineated with more than a single soil sample. What is the reasoning behind delineating the Site-related chemicals here with a single soil sample of the adjacent City ROW?
  - a. Figures 33-35 show the Site releases of vinyl chloride impacting City ROW. Section 7.4, pages 61-62, states:

There were no detected vinyl chloride concentrations greater than the Screening level (see Figures 34 and 35). Since vinyl chloride is only retained as a soil COC because it is a groundwater COC, SLR also evaluated the concentrations below the screening level. There are no detected vinyl chloride concentrations greater than 0.1 mg/kg at the Subject Property. There are only localized areas of vinyl chloride in the groundwater at concentrations greater than the screening level, and there are no detected soil concentrations in those areas.

The draft RI does not indicate any soil sampling in City ROW to determine the presence of vinyl chloride. The City requests soil sampling for vinyl chloride to determine extents of Site releases potentially impacting City ROW.
  - b. Figures 36-38 show Site releases of Total CPAHs TEQ impacting City ROW. Section 7.4 page 62 of the draft RI states “The lateral extents of the total cPAH TEQ concentrations greater than the screening level have been delineated.” Did that determination include sampling in City ROW to determine the presence of CPAHs TEQ? If not, the City requests soil sampling in City ROW to delineate extent of total CPAHs TEQ impacting City ROW.
  - c. Figures 39-41 show Site releases of total Dioxins/Furans TEQ impacting City ROW. Section 7.4 page 62 of the draft RI states that “The lateral extents of the total D/F TEQ concentrations greater than the screening level have been delineated, except to the west of borings EB-34 and EB-42 (near the western border of the Subject Property) and to the southwest of EB-42.” The City requests soil sampling in City ROW to delineate the extent of D/F TEQ Site releases impacting City ROW.
  - d. Figures 42-44 show Site releases of total PCBs impacting City ROW. Section 7.4 page 62 of the draft RI states that “The lateral extents of the total PCB concentrations greater than the screening level have been delineated, except at boring DB12 (near the western border of the Subject Property) at a depth below 6 feet bgs (see Figure 43).” The City requests additional soil sampling in City ROW west of DB12 to determine lateral extents of Site PCB releases.
  - e. Figures 45-47 show Site releases of total semi-volatile petroleum hydrocarbons (DRO + ORO) impacting City ROW. Section 7.4 page 62 of the draft RI states that “The lateral extents of the total semi-volatile petroleum hydrocarbon



concentrations greater than the screening level have been delineated.” How was this determined without further soil sampling in City ROW?

3. **Site releases impacting groundwater in City ROW:** The draft RI shows multiple potential Site releases impacting groundwater in City ROW; however, the draft RI includes only four groundwater monitoring wells in City ROW: EMW-11S, EMW-12S, EMW-17S, and EMW-18S. Please provide the reasoning behind delineating Site-related chemicals with this limited groundwater sampling of the City ROW.
  - a. The draft RI states that shallow groundwater flows around the seawall in the SW corner during low tide (Figure 14), but no wells are installed to sample shallow water in this location off property to the SW. The City recommends a shallow groundwater well in City ROW to monitor potential offsite flow of contaminants during the next investigation phase.
  - b. Figures 51-53 show Site releases of dissolved arsenic concentrations in groundwater impacting City ROW. Section 7.5 of the draft RI acknowledges on page 64 that for dissolved arsenic concentrations “the vertical extent has been delineated” but “lateral extents of the dissolved arsenic concentrations greater than the screening level, after analysis by ICP-DRC-MS, have been delineated at the Site, except to the west of well HC-20 (near the western border of the Subject Property.” City ROW is located immediately adjacent (to the west) of Well HC-20. The City requests further sampling in City ROW to determine the lateral extents of dissolved arsenic concentrations impacting City ROW. The draft RI mentions not delineating the lateral extent of dissolved arsenic in groundwater west of the property in shallow groundwater zone (pg. 64). The City recommends additional groundwater sampling along the western boundaries to delineate shallow groundwater plume.
  - c. Figures 56-60 show Site releases of dissolved copper in groundwater impacting City ROW. The draft RI acknowledges that sampling results may be affected by brackish groundwater, and to evaluate that potential, the September and October 2013 groundwater samples were analyzed for dissolved copper by ICP-DRC-MS. Even considering the effect of the brackish groundwater, the draft RI shows potential Site releases of dissolved copper impacting City ROW (Figure 57). The City recommends additional groundwater sampling for dissolved copper along the western boundaries to delineate shallow groundwater plume.
  - d. Figure 64 shows Site concentrations of cPAHs TEQ impacting City ROW. Concentrations in EM-18s in City ROW indicate concentrations more than ten times the screening level. Section 7.5 page 65 states that the lateral extents of cPAHs TEQ concentrations have been delineated. How were the lateral extents of concentrations impacting City ROW determined with limited groundwater sampling in City ROW?
  - e. Figures 67-69 show Site releases of total PCBs in groundwater impacting City ROW. In Section 7.5 page 65, the draft RI states that “the lateral extents of the total PCB concentrations greater than the screening level have been delineated



at the Site.” How were the lateral extents of concentrations impacting City ROW determined with limited groundwater sampling in City ROW?

- f. The City did not identify in the draft RI discussion of sampling total semi-volatile petroleum hydrocarbons (DRO + ORO) in groundwater. Was such sampling performed? If not, why not? Table 18d indicates concentrations of petroleum hydrocarbons in groundwater at DMW-3 exceeding screening levels, but the City did not identify discussion of this in text or figures. How were vertical and lateral extents for Site releases for this COC determined?
4. We were not able to locate the draft RI Appendix D, Field Logs and Sampling Details. Can this document please be made available for review?

The City believes that further investigation is needed to determine the extents of Site releases for multiple Site IHSs impacting City ROW. Please let us know if you have any questions, and we look forward to further coordination as the clean-up process continues.

Thank you again for the opportunity to review.

Sincerely,

Jill Macik  
Environmental Manager, Capital Projects Division  
Seattle Department of Transportation

CC: Joey Aitken, Seattle Department of Transportation  
Allison Crowley, Seattle City Light  
Karsten Springstead, Seattle Parks and Recreation