

Response to Oregon DEQ Comments

Stormwater Source Control Evaluation Report – Final, Terminal 4 Slip 3

September 2024

ID No.	Section Name/Topic	Oregon DEQ Comment	Port Response
1 – General Comments	General Comments	Please provide a table presenting the screening level values (SLVs) and the concentrations equivalent to 10X the SLVs used for comparison and referenced in the Stormwater SCE. Alternatively, the SLVs could be added to the summary tables presenting data for the stormwater and stormwater solid samples. Where detected concentrations exceeded SLVs, the range of exceedance ratios should be discussed.	The Acronyms and Abbreviations list, as well as Section 2.5, have been updated to clarify that the term SLV refers to the SLVs provided in the Joint Source Control Strategy report (DEQ and EPA, 2005)¹. A table of SLVs and 10x SLVs has been added as the first table in the Historic Data Tables section at the end of the report. In addition to the 10x SLV exceedances already discussed, exceedance ratios were added to the discussion where applicable. (Note: the term Exceedance Factor, EF, is used in this report, but is the same as exceedance ratio.)
2 – General Comments	General Comments	For each contaminant of interest (COI), please provide information indicating from what source the SLV was obtained [e.g., Table 17 cleanup levels (CULs), joint source control strategy SLVs, or other].	See Response to General Comment 1.

¹ DEQ and EPA, 2005. Portland Harbor Joint Source Control Strategy. Final. December.

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3 – General Comments	General Comments	In multiple sections of the Stormwater SCE, various terms are used to describe the state of selected outfalls, including “abandoned”, “decommissioned”, “plugged”, “inactive”, and “capped”. While acknowledging that more than one of these terms may concurrently apply to selected outfalls, DEQ suggests it would be helpful if the Stormwater SCE defined these terms to ensure consistency of use and facilitate better understanding for the reader.	Definitions of applicable terms have been added to Section 2.2.2, and the report has been edited for clarification throughout.
4 – Specific Comments	Section 2.2.1 Drainage Basin	This section should further describe the relationship of Basin D in Slip 3 to the larger Toyota Leasehold property. Specifically, Basin D encompasses portions of both the Terminal 4 Slip 3 property and the Toyota Leasehold property, with the majority of the basin utilized for purposes unrelated to the historic presence of a petroleum pipeline and above-ground storage tanks in the vicinity of Slip 3. The majority of Basin D is used for temporary vehicle staging, which is a low-risk industrial use. Such discussion would help put the information presented in Figures 4 and 5 in proper context.	The spatial relationship of Basin D to T4 Slip 3 and to the Toyota leasehold has been clarified.
5 – Specific Comments	Section 2.2.2 Outfalls	Section 2.2.2 Outfalls – Were the accessible portions of the storm lines for Basin J and K2 also found to be competent and free from breaks during the video inspection? Please confirm.	Accessible portions of the pipes were found to be in acceptable condition. Text has been added to the report to clarify this.

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6a – Specific Comments	Section 2.5.1 Basin D	This section states that detected concentrations of Total Suspended Solids (TSS) were low and this, along with the presence of end-of-pipe treatment (i.e., Downstream Defender) installed at the remaining Basin D outfall, is cited as support that no actions to control stormwater are needed. However, an industrial stormwater curve for TSS is not provided in Appendix A. Please add this information to Appendix A or explain its omission.	The TSS data that are being referenced were collected in 2007 as part of the original T4 source control evaluation. This data is included in the data tables at the end of the report. The data for both Basins D and K1 has been plotted on a rank order curve for TSS which has been added to Appendix A.
6b – Specific Comments	Section 2.5.1 Basin D	For contaminants in stormwater discussed in subsections A.2 through A.6 which exceed SLVs, please discuss the range of exceedance ratios.	For most subsections, the text states which exceedance factors (EFs) were above or below 10x the SLV. These comparisons were added to sections where they were absent, and exceedance factor ranges were also added for constituents that exceeded SLVs by less than a factor of 10.
7a – Specific Comments	Section 2.5.2 Basins J and K2	Please add language indicating that specific supporting information regarding observations of no flow is provided in Sections 6.2 and 6.3 of the Stormwater SCE.	The requested language has been added.
7b – Specific Comments	Section 2.5.2 Basins J and K2	DEQ notes that in Figure 10, it appears there is a dark colored area (possible staining?) on the trunk of the tree adjacent to the capped K2 outfall. Has the possibility that this represents fluids dripping from the capped outfall been investigated and/or ruled out? Please clarify.	The tree in the picture is approximately 10 feet behind the capped pipe, so any marking on the tree is not related to the outfall. An additional photo has been added to better demonstrate the spatial proximity of the tree to the outfall.
8 – Specific Comments	Section 3.2 Outfall Sediment Data	The purpose of the Sufficiency Assessment is to identify not only remedial action level (RAL) or principal threat waste (PTW) exceedances	The text in the section has been revised to add the findings and conclusions of the Sufficiency Assessment pertaining to CUL exceedances and

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		that could pose a recontamination risk, but also CUL exceedances that could impair long-term attainment of the Remedial Action Objectives (RAOs) for the in-water cleanup. Therefore, the discussion regarding exceedances in riverbank soils near the Basin D and K1 outfalls should also include CUL exceedances and their magnitude. Please clarify the context and timeframe for the “remedial design”.	long-term attainment of RAOs, and to clarify remedial design.
9 – Specific Comments	Section 4 Ongoing Stormwater Management Measures and Section 6.4 Basin K1	The vegetation around the bio infiltration basin in K1 shown in Figure 9 appears to be extremely sparse in the photo; has the vegetation thickened around the sides and base of this basin and has any evidence of clogging and/or erosion/rills along any of the basin sidewalls been observed? Please clarify.	The photo of the Basin K2 bioinfiltration basin has been updated with a more recent photograph. Additional information regarding the status and performance of the Basin K2 bioinfiltration basin can be found in the 2023 Comprehensive Report. The basin slope surfaces are armored with gravel. Based on monthly inspection records provided with the 2023 Comprehensive Report, no erosion/rills or clogging has been observed at the basin.
10a – Specific Comments	Section 6.2 Basin J	Please provide discussion regarding why additional investigations that ultimately discovered a remaining catch basin in Basin J were performed subsequent to the 2021 Stormwater Evaluation Report. Based on discussion provided, however, DEQ infers that ponding events were observed although no information regarding the frequency of occurrence, duration of ponding, or depth of	No ponding was observed in the Basin J area. The information provided on previous ponding observed near the Basin K2/K1 catch basin has been expanded. For Basin J, the Port’s GIS layer showed catch basins present in Basins J, so, in the interest of thoroughness, the Port had its locator investigate to verify their status prior to removing them from the GIS layers. The locator found only the one catch basin in Basin J and

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		ponding is provided. Please clarify. Comment also applies to Section 6.3.	the one in Basin K2 that is actually connected to the Basin K1 outfall. Based on field observations, there was no indication that the catch basin in Basin J was receiving runoff from adjacent areas, and, as stated in the report, no ponding was observed after its removal. Additional information has been added to describe the ponding observed in Basin K2 in Section 6.3.
10b – Specific Comments	Section 6.2 Basin J	Please provide specific information regarding the dates in 2020 during which flow was not observed during significant precipitation events and forms the basis for the Port’s conclusion that the outfalls for these basins do not discharge. Comment also applies to Section 6.3.	The specific dates have been added to Sections 6.2 and 6.3.
10c – Specific Comments	Section 6.2 Basin J	Please highlight on Figure 2 the locations of the additional catch basins identified and decommissioned or plugged in Basins J (May 2023) and K2 (August 2021), respectively.	Callouts have been added to Figure 2 identifying which catch basins were identified and abandoned or capped.
11 – Specific Comments	Section 7.1.1 Basin D	The first sentence should indicate the five minor outfalls are abandoned and not only capped.	The upstream structures (catch basins and piping) remain in place but are expected to be fully removed or abandoned in-place as part of future redevelopment. The text has been revised to classify the minor Basin D outfalls as inactive rather than abandoned due to the infrastructure remaining in place.
12 – Specific Comments	Section 7.1.2 Basin K2 and J	The first sentence is misleading as the conveyance pipes connected to the Basins K2 and J catch basins remain in place. Please	The text was edited to clarify that the outfalls are inactive, and no above-ground conveyances are connected to the outfalls. While there is still

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		correct this text to indicate the outfalls are inactive.	underground piping in place, there are no catch basins or drains where stormwater could enter the pipes.
13 – Specific Comments	Section 7.2 Other Lines of Evidence	The existence of the MS4 permit held by the Port and 1200-Z permits held by tenants including Toyota and Kinder Morgan alone do not constitute sufficient other lines of evidence that the stormwater pathway has been controlled. This section should cite the continued operation of the Basin K1 infiltration basin and Basin D end-of-pipe treatment, observations of the capped outfalls for Basins J and K2, and lack of change in land use as LOEs that the stormwater pathway will continue to be controlled. The continued implementation of best management practices (e.g., sweeping) should also be included in this section.	Additional discussion of other lines of evidence has been added. However, note that DEQ’s <i>Template for a Stormwater Source Control Evaluation Report</i> states this section should, “Describe other evidence that helps demonstrate that contaminant sources will continue to be controlled in the future, such as additional BMPs or SCMs planned for future implementation, regulatory or other tools that will ensure stormwater source control measures will be continued in the future, etc.” The lines of evidence suggested by DEQ to include in this section are mentioned repeatedly earlier in the report and are considered primary lines of evidence not “Other Lines of Evidence”. The primary lines of evidence are included in the appropriate sections per the SCE Report Template: • Basin K1 bioinfiltration basin – Sections 6.4 and 7.1.3 • Basin D end-of-pipe treatment – Sections 6.1 and 7.1.1 • Observations and capped outfalls in Basins J and K2 - Sections 6.2, 6.3, and 7.1.2 • Lack of change in land use – Sections 2.5.1, 2.5.2, and 2.5.3

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			Continued best management practices – Section 4
14 – Specific Comments	Section 8 Findings and Conclusions	Under number 2, please revise the second bullet to accurately reflect that stormwater from Basin K1 is controlled with an infiltration basin, not an end-of-pipe treatment SCM.	The bullet has been revised for clarification.
15 – Specific Comments	Figure 2	Are all minor outfalls in Basin D abandoned, or are some only capped at the end of pipe? Please clarify and update the figure as necessary to make this difference clear.	See response to Specific Comment 11; Figures 2 and 3 have been updated accordingly.
16 – Specific Comments	Figure 3	Please add labels to outfalls shown (e.g., STSOUT262).	Port Asset IDs have been added to Figure 3.
17 – Specific Comments	Figure 7	Several sections of the report indicate the minor outfalls in Basin D are capped. Some sections indicate the upland catch basins were decommissioned and/or abandoned. For the outfalls that are shown to be capped, how were the upland catch basins and piping decommissioned?	See response to Specific Comment 11.