

Table 1. Response to DEQ and EPA Comments on *December 2022 Dioxin/Furan Stormwater Sampling Second Event*

DEQ Comments Dated February 14, 2023		
Comment Identifier	Comment	NWP Response
General Comment	The Report presents the results of sampling Dioxin/Furans from the two stormwater treatment systems as prescribed in NWP's approved work plan. The Report proposes suspending the remaining two stormwater sampling events described in the work plan. DEQ and EPA disagree that there is sufficient data not to conduct the remaining two stormwater sampling events. DEQ and EPA recommend that NWP conduct the remaining sampling events as described in the approved workplan.	The remaining sampling events were conducted as recommended.
Specific Comment 1	Section 5- DEQ disagrees that the initial two rounds of stormwater data are sufficient to conclude NWP is not a potential source of recontamination to Portland Harbor from Dioxin/Furans.	The remaining sampling events were conducted as recommended.
Specific Comment 2	Section 5- The stormwater sampling events at the Northwest Pipe show several dioxins/furans (including congeners with applicable Portland Harbor Remedial Actions Levels) above the method detection limits, indicating that stormwater leaving the site is potentially impacted.	Sections 4 and 5 of the <i>Dioxin/Furan Stormwater Sampling Summary of Full Sampling Series</i> (the 2023 Report) address this point.
Specific Comment 3	Appendix B- DEQ requests that following the collection of a least two additional sampling events, there is a discussion of method blank contamination during laboratory analysis and the impact on the data quality and usability.	Discussion has been added to Section 4 of the 2023 Report.
Specific Comment 4	After completing the two stormwater sampling events, provide a data summary of all four events.	The 2023 Report, a data summary report for all four events, is included with the submission of this response to comments.
EPA Comments Dated January 24, 2023		
Comment Identifier	Comment	NWP Response
Primary Comment 1	At this time, EPA does not agree with the conclusion that the Northwest Pipe site is not a potential source for Portland Harbor recontamination from dioxins and furans, and insufficient data has been collected to date to support this conclusion. The Work Plan states that "If the first two sampling events result in concentrations below clean up levels, EPA and DEQ may consider a proposal to suspend the final two sampling event"	The full set of stormwater samples has been collected and results are presented in the 2023 Report accompanying this response to comments. The laboratory analytical data and multiple lines of evidence are presented in the 2023 Report to evaluate progress towards achieving the Portland

	(Jacobs 2022). However, the concentrations of dioxins/furans presented in the Sample Summary are above the ROD CUL for TCDD-eq (EPA 2017). Northwest Pipe should proceed with conducting the remaining two stormwater sampling events in accordance with the approved Work Plan. The progress towards achieving the Portland Harbor remedial action objectives and applicable or relevant and appropriate requirements should be evaluated after a full set of data is collected from four stormwater sampling events, and this conclusion may be reconsidered at that time.	Harbor remedial action objectives and applicable or relevant and appropriate requirements.
Primary Comment 2	There is a large amount of sample data presented with "UB" qualifiers indicating that there was method blank contamination during laboratory analysis. During future data analysis, a discussion should be provided in the data quality evaluation regarding why method blank detections occurred along with the implications on the quality and usability of sample data.	Discussion has been added to Section 4 of the 2023 Report.
Primary Comment 3	The Sample Summary argues that "pristine water free of dioxins and furans" would exceed the ROD CUL for TCDD-eq due to the EPA rules for handling non-detect values (EPA 2021). However, this statement is not valid for this sampling event at Northwest Pipe site because there were several dioxins/furans detected above the method detection limit, indicating that stormwater leaving the site is not "pristine." If all dioxins/furans within a sample are non-detect then the summation would be the maximum non-detect value. When taking a summation of only detected values of dioxins/furans without considering the non-detect values, the ROD CUL for TCDD-eq is exceeded. This statement should therefore not be included in future data evaluations when detected concentrations of dioxins/furans are present above ROD CULs.	Samples collected in the most recent sampling event in September 2023 were non-detect for all dioxins/furans. EPA's stated method was employed for calculating the TCDD-eq. for these samples. The resulting TCDD-eq. values for these samples exceed the CUL as discussed in Section 5 of the report.
To Be Considered Comment 1	The Sample Summary report and future evaluations of stormwater source control at the Northwest Pipe site should be limited to presenting stormwater sample results, comparisons to ROD CULs, and other specific lines of evidence that may inform future decision whether the quality of stormwater discharge is consistent with the PHSS remedial goals. Section 5 of the Sample Summary presents several paragraphs of non-site-specific discussion that diverges from the factual data presented. Consider omitting broad discussions and arguments on validity of CULs	EPA's comments dated April 20, 2022, requested Northwest Pipe include a weight of evidence evaluation regarding the recontamination potential of the stormwater pathway. Section 5 provides multiple lines of evidence that stormwater from the Northwest Pipe Portland Plant is not a source of dioxins and furans to the IT Slip that could threaten any remediation efforts of sediment. The validity of

	and instead focus on actual data collected and the effectiveness of treatment system which is useful information that will be considered in determining source control at this site.	the screening levels required for this evaluation provide context for interpreting the analytical results.
To Be Considered Comment 2	The DEQ Joint Source Control Strategy Appendix D does not define 0.2 inch as a "heavy rain event" but rather identifies 0.2 inches as the minimum threshold for a qualifying storm event (DEQ & EPA, 2005).	The text of the 2023 Report has been modified to address this comment.