LWG Response to EPA Comments on the Stormwater Loading Calculations Methods Report

Number	Section	Paragraph	Comment	LWG Response
1	1.0	2	The report should specify that stormwater data from the Port of Portland Terminal 4 was also used for this analysis.	The Port of Portland Terminal 4 data are covered as part of the Round 3A Field Sampling Plan, but we will add a sentence specifically stating this.
2	1.0	2, 3rd and 4th sentences	The Report should specify the number of outfalls and sediment traps sampled.	The number of outfalls and sediment trap samples will be added.
3	1.0	2, 6th sentence	The Report should note that the GE site is within a storm water basin (not an outfall).	The report will note that the GE site is located within the OF-17 stormwater basin and that the runoff from this site represents only a portion of the stormwater basin associated with the OF-17.
4	2.0	1, 3rd sentence	Only median flow year is presented in the draft RI. In addition to the median flow year, a worst case scenario (e.g., 100-year flood event) should also be presented. This information may be presented as a relative contribution from other sources (e.g., upriver) in the Final RI and draft FS Reports.	This appears to be a comment on the contents of the RI and draft FS. With respect to the RI, the Draft RI notes (pg 10-14) that, "For all loading terms, the target loading units are mass per year to the entire Study Area for a typical water year." The LWG and EPA agreed to this specific approach to RI stormwater loading calculations in November 2008 (September 2, 2008 Technical Memorandum from LWG to EPA on Proposed Method for Calculating Basin-weighted Statistics for Stormwater Data, as modified by EPA's approval letter and comments dated November 3, 2008, and as clarified by the LWG's response letter dated November 19, 2008). Stormwater results from the 95th percentile river flow year (similar to a worst case scenario) have been calculated as a part of the Stormwater Loading Methods Report and will be presented in draft FS report as part of the Fate and Transport Model results and discussion.

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5	2.0	NA	Stormwater outfalls with COIs that pose a potential risk to the Willamette River should be presented in the draft FS Report.	Per direction from the Stormwater Technical Team, stormwater samples were collected in order to support a land use based approach to estimate the stormwater loads to the river on approximately a half river mile basis. Sampling was not designed to evaluate loads or risks from all the individual outfalls discharging to the river. The draft FS will evaluate harbor-wide and AOPC-specific stormwater contributions as part of the recontamination analysis.
6	2.1.2	1	The Report should note at the end of this paragraph that more detailed recontamination potential will be conducted during remedial design.	A sentence will be added stating that more detailed evaluation of recontamination potential will be conducted during remedial design.
7	3.0	2	The basis and rationale for the selection of "stormwater loading indicator chemicals" should be explained in the Report.	The basis and rationale for the selection of stormwater loading indicator chemicals is discussed in Section 6.0 of the Draft RI. That is, “These lists were generated from the overall list of ICs for loading, fate, and transport developed in consultation with EPA, and reflect data availability by media and relevance of the chemical to the loading mechanism (e.g., equilibrium partitioning ICs primarily focus on hydrophobic chemicals and metals; stormwater and atmospheric deposition ICs reflect the limited available data sets; upland plume loading ICs reflect individual upland plumes, etc.)." Text will be added to refer the reader to Section 6.0 of the RI Report.

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8	3.2	NA	Chemicals detected in stormwater that pose unacceptable risk to human health or the environmentshould be identified in a table. EPA acknowledges that a subset of these chemicals may be evaluated in the FS.	This appears to be a comment on the contents of the RI and draft FS. With respect to the RI, the Draft RI notes (pg 10-14) that, "For all loading terms, the target loading units are mass per year to the entire Study Area for a typical water year." The LWG and EPA agreed to this specific approach to RI stormwater loading calculations in November 2008 (September 2, 2008 Technical Memorandum from LWG to EPA on Proposed Method for Calculating Basin-weighted Statistics for Stormwater Data, as modified by EPA's approval letter and comments dated November 3, 2008, and as clarified by the LWG's response letter dated November 19, 2008). Stormwater results from the 95th percentile river flow year (similar to a worst case scenario) have been calculated as a part of the Stormwater Loading Methods Report and will be presented in draft FS report as part of the Fate and Transport Model results and discussion.
9	4.1	1, 3rd sentence	See comment 3 above.	
10	Tables 4-6 (and 4-7)	NA	The information presented in Tables 4-6 and 4-7 should be summarized in presented in one table (e.g., just pick the statistic such as geometric mean that is available for all and compare) and clearly identify thesource of the data which is not clear from the headings. Presenting information this way could substantiate the statement made in Section 4.3.4.1, paragraph 1, last sentence.	A new table will be added to present a summary of the data in Tables 4-6 and 4-7.

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Number	Section	Paragraph	Comment	LWG Response
11	Tables 4-6 (and 4-7)	NA	If data are not available from a source, the table should indicate NA.	The table will be updated to indicate NA if data are not available.
12	Tables 4-6 (and 4-7)	NA	It is unclear that no other sources of information are available. What about national data or WSDOT data?	We evaluated the data that the Stormwater Technical Team asked us to evaluate. The Team's intent was not to have a comprehensive literature search, but rather to compare readily available data. The current sources of information meet the objective of putting the data in perspective of readily available levels.
13	4.3.4	Entire Section	The information presented in this section is a long evaluation to get to a conclusion of "it's too late to include data in the analysis and it would matter anyway." EPA recommends stating the conclusion up front and using the section to provide the basis for the conclusion.	The conclusion will be included at the beginning of the section.
14	7.3.1	Entire Section	This section should clearly state that the calculated average values tend to underestimate the measured value (which is based on an average of data set for outfall).	This section compares processed and unprocessed data. We are assuming that by "calculated" you mean processed data, and by "measured" you mean unprocessed data. If this understanding is correct, we disagree with this comment. Figure 7-2 shows a scatter plot of processed versus unprocessed data. As discussed in Section 7.3.1, values did occur more frequently to the right of the trendline, indicating that median values tended to be higher in the processed data set. Therefore, changes to this section do not appear to be needed.

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15	7.4	NA	Comparison of water to sediment trap data shows whether the chemical is hydrophobic or hydrophilic. Total storm water load is the sum of the water and solids loads. This total storm water load should be used in the models unless the load can be evaluated as two separate loads – an aqueous load that goes to the river water column and a solids load that goes to the river sediments.	LWG agrees that the total stormwater load should and will be used in the models. Total stormwater loads (based on both composite water and sediment trap samples) are presented in the report. Total stormwater loads calculated based on composite water data have been used to calibrate the fate and transport model.
16	8.0	1	The Report should state clearly that loading approachcontained therein is acceptable for use in the model. The basis for this conclusion should be clearly documented.	Text will be added stating that the loading approach contained therein is acceptable for use in the model per the EPA approval included with these comments.