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TECHNICAL MEMORANDUM

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**To:** David Lacey and Alex Liverman, Oregon Department of Environmental Quality (DEQ)  
**From:** Peter Shanahan, HAI  
**Subject:** **Review of draft Source Control Decision for Portland General Electric Rivergate North and South Substations site**  
**Date:** June 19, 2020

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This review of the draft Source Control Decision (SCD) for the Portland General Electric (PGE) Rivergate North and South Substations site has been prepared on behalf of the Five Tribes<sup>1</sup>.

### General Comments

1. We concur with the conclusion of the SCD that this site is not a potential future source of contamination to Portland Harbor.
2. This facility has experienced a number of transformer releases in the past and despite some soil removal, there is residual contamination by PCBs. As such, this would normally be considered a potentially problematic source of contamination to the river. However, the stormwater system that once drained the area has been completely sealed and there is no longer a pathway for stormwater to the river. This last-mentioned aspect of the site, which is critical, is not clearly and explicitly stated in the draft SCD. There is mention of “covering” the nearby catch basin on page 4 and “abandoning” the catch basin on page 5, but neither description makes clear the extent of the measure taken, which was to completely seal the catch basin with concrete and plug the outlet pipe, thus disconnecting the site from the stormwater sewer that drains to Portland Harbor. The less-than-explicit descriptions of the stormwater system in the draft SCD do not appear until well into the document. The text in the early pages of the draft SCD are confusing in that they discuss the former stormwater sewer system as if it still exists. We recommend that a paragraph be added to the introduction (Section 1.0) or site history (Section 2.0) to describe the recent modifications of the storm sewer system so that the reader has full context for Sections 3.0 and 4.0.
3. The SCD states there are “no known groundwater issues under the site” but cites no reports or field information as support. Most rainwater on the site is infiltrated, some presumably passing through PCB-contaminated soil. This infiltrated water undoubtedly reaches either the Columbia Slough to the east or Portland Harbor to the west, or both, via a groundwater pathway. Owing

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<sup>1</sup> The five tribes are the Confederated Tribes of The Grand Ronde Community of Oregon, the Nez Perce Tribe, the Confederated Tribes of Siletz Indians, the Confederated Tribes of the Umatilla Indian Reservation, and the Confederated Tribes of the Warm Springs Reservation of Oregon.

to the strongly hydrophobic nature of PCBs, there is negligible risk of transport of PCBs to surface water via a groundwater pathway and we concur that stormwater is the only likely complete contaminant transport pathway for this site. Nonetheless, the groundwater pathway deserves more discussion and documentation than provided in the draft SCD. In particular, we recommend that the SCD include a brief description of any field evidence that demonstrates there are “no known groundwater issues” (i.e., such as chemical analyses of groundwater samples).

## Detailed Comments

4. We recommend that Figure 1 identify the location of Rivergate Pond, which is described in the text as the drainage pathway from the site to the Columbia Slough.
5. In the draft SCD, Tables 1 and 2 follow Figure 1, which leads the reader to think there is only the single figure in the draft SCD. We recommend that all of the figures and tables appear together in numerical order following the text.
6. At the bottom of page 2, there is a reference to the “southernmost east side catch basin.” Figure 1 identifies this as CB-1. We recommend including that identifier and adding a cross reference to Figure 1 in the text.
7. We found Section 4.3.1 to be potentially misleading. The two-sentence description that begins “However, upon filling of the sump,...” describes a complete pathway for stormwater to reach Portland Harbor without ever explaining that this was a historical condition that is no longer relevant because the stormwater sewer has been sealed. In addition to our recommendation in Comment 1 that more context on the stormwater system be provided earlier in the SCD, we suggest the text in Section 4.3.1 state clearly that it describes a historical configuration. We also recommend modifying the text to state “upon filling of the sump with stormwater” to avoid confusion, since “fill” could reference the placement of solids. The text indicates that (historically) collected stormwater could discharge to the river through Outfall WR-123. We suggest adding additional description and/or a figure of the constructed drainage system to illustrate this pathway better.
8. Section 4.3.1 states “...source control measures, including covering catch basin CB-1,...” “Covering” is not a clear description of this source control measure. PGE (2020, pg. 14) states “CB-1 was closed by plugging the outlet pipe and filling the catch basin with concrete.” This is a more detailed description and we suggest DEQ use this rather than “covering.”
9. We question the relevance and value of the comparisons of stormwater and solids concentrations to the DEQ rank-order curves in Figures 3 through 13. The comparisons are irrelevant since the stormwater pathway is now disconnected as the result of sealing the stormwater sewer near the site. Their value is questionable since they appear to contradict the statement in the draft SCD at the top of page 5 that “contaminants in these media are not atypically elevated at the site.” In fact, the figures show some very high concentrations that would be of real concern if the site were still connected to Portland Harbor by storm sewers.
10. Figure 3 makes reference to Section 5.1. We recommend clarifying that this is a citation to Section 5.1 of PGE (2020).

## Cited References

PGE, 2020. Stormwater Source Control Evaluation Report, Rivergate Substations, Rivergate North and South Substations, 8920 N Time Oil Road. Portland General Electric, Portland, Oregon. January 2020.