

MEMORANDUM | April 8, 2026

TO Wes Thomas and David Lacey, Oregon Department of Environmental Quality (DEQ)

FROM Peter Shanahan, HydroAnalysis LLC (HALLC); Jennifer Hart and Gail Fricano, Industrial Economics, Inc. (IEc)

SUBJECT Five Tribe review of “Doane Creek Source Control Evaluation Report” for the Gasco upland site, dated February 27, 2026

This memorandum, submitted on behalf of the Five Tribes,¹ reviews the *Doane Creek Source Control Evaluation Report* (SCE Report) prepared by Anchor QEA and Ede Environmental LLC on behalf of NW Natural (Anchor QEA & Ede Environmental 2026).

General Comments

1. Overall, the SCE Report fails to make a convincing case that polycyclic aromatic hydrocarbon (PAH) contamination from Doane Creek, which discharges to the Willamette River at the City of Portland’s Outfall 22C, is not problematic. In particular, Figure E1-6a shows that two of the more recent samples from the outfall (2022, 2023) are among the highest values for Total PAH in the Portland Harbor stormwater dataset. Two other plotted values in Figure E1-6a are well above the knee, another is near the knee, and only one is below the knee of the curve. The highest value was recorded during Event 5, a stormwater rather than a baseflow event (Table G-2), suggesting that high concentrations occur during high flow and thus contribute substantial loads of PAHs to the River. These measurements indicate that Outfall 22C is an uncontrolled source of PAHs in Portland Harbor.
2. Doane Creek passes through a highly industrialized area that includes several sites in DEQ’s upland cleanup and source control program including Gasco, Siltronic, and Rhone-Poulenc, among others. As such, Doane Creek has been impacted by a range of upland site operations, some of which involved coal tar residuals. Figure E2-4 shows very high values of Total PAH in two groundwater seeps into Doane Creek. Currently, Section 6.6 of the SCE Report identifies a multitude of “potential” sources without quantifying loads or ranking source strength. Regardless of the specific source, the concentrations of PAHs in Outfall 22C discharge are “elevated” as defined by DEQ’s “Guidance for Evaluating the Stormwater Pathway at Upland Sites” (DEQ 2010).

¹ 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.

3. Based on Comments #1 and #2 above, we strongly recommend that additional field investigations be conducted to identify the predominant source of PAHs in stormwater. The recent samples focused on Outfall 22C at the end of the system; however, a more comprehensive field sampling focused on the inflows along NW St Helens Road and NW Front Avenue may help determine whether PAHs are coming into the system from upstream or mostly originating on the Siltronic site from groundwater inflow into Doane Creek. Further, we recommend a more complete evaluation of the effectiveness of the existing source control measures (SCMs) and additional SCMs that could be implemented be provided either in this or a separate SCE.
4. The SCE Report makes many references to site features and locations that are not clearly identified in maps, which makes the report difficult to follow. We recommend that any features referenced in the text be labeled in at least one figure, and several specific examples are provided below.

Specific Comments

5. Section 2 indicates that the 84-inch culvert was constructed in 1980 but an as-built plan for the culvert from 1978 is included in the list of references. These inconsistent dates should be corrected.
6. Section 3.1.3 compares measured dioxin and furan concentrations to the knee of the curve. Unlike the other constituents, the knee of the curve is not labeled in the figures in Appendix E. We recommend these points also be labeled.
7. Section 3.1.4 indicates there was a cleanout of the conveyance system sometime after 2004, but this action is not discussed in the SCE Report. Since system cleanout has potential bearing on the measured concentrations of contaminants, the cleanout action should be described.
8. Section 4 discusses potential sources of contamination but omits the City of Portland's Vehicle Impoundment Yard. Aerial photographs, including images used in the SCE Report's maps, show many vehicles stored in this yard. Vehicles are potential sources of petroleum hydrocarbons and other stormwater pollutants. This site, which is a part of the Western Subbasin and drains to Doane Creek Swale, should also be evaluated as a potential source.
9. Section 4.2 references Areas A and B on the BNSF property. We recommend these areas be delineated on Figure 2-2.
10. Section 4.6 discusses three different leaks from the Olympic Pipeline, but only the location of the 1979 leak is identified in Figures 2-1 and 4-1. The text does not make clear if all three leaks were in this same area. We recommend the figures be modified to show and label the location(s) of all three leak events.
11. In Sections 4.10, 5.1, and elsewhere in the SCE Report there are references to the Siltronic Wastewater Treatment Plant (WWTP). The WWTP is not identified until Figure 5-1. We recommend labeling it in Figure 2-1 as well.
12. Section 4.10 states: "However, it is likely the weak acid was neutralized rather quickly in the soil with minimal impact to the Doane Creek Ditch." In the absence of more specific information, this statement seems speculative. We recommend that it either be deleted or better supported.

13. The last sentence of Section 4.10 states “...potential for overland flow that could impact Doane Creek was observed in three areas; however, only one of these was considered a complete pathway from the Siltronic property to Doane Creek.” We recommend the area in question be specifically identified.
14. Section 4.12 begins with a short history of Doane Lake. A figure showing its historical extents would be helpful.
15. Section 4.15 discusses stormwater contaminants from five unidentified focus areas. Without identification of the areas, this section provides no useful information.
16. Section 5.1 indicates that plans are available for the 84-inch culvert construction in 1978. The section also makes reference to preferential flow within the backfill of the culvert. If the 1978 plans show and/or describe the backfill, we recommend that information also be provided.
17. Section 6.4.6.1 compares bank soil sample concentrations with the cumulative distribution curves for stormwater sediments. Even though bank soils are not stormwater sediments per se, we presume that the comparison is based on the presumption that bank soils could slough into Doane Creek and thereby become stormwater sediments. The text should clarify the approximate nature of this comparison.
18. Section 6.4.7.1 indicates there are no cumulative distribution curves for groundwater. While true, the concern is that groundwater will intrude into stormwater drainage systems and as such should be compared to the cumulative distribution curves for stormwater. Such a comparison would provide a clearer indication of the magnitude of contamination associated with groundwater.
19. Table G-2 gives the results for Event 1 as the computed average of the sample and field duplicate. We recommend that the results for these two analyses be presented separately.

Editorial Comments

20. Section 2.2.2 references “a new 24-inch pipe beneath NW St. Helens Road” and “15-inch corrugated metal pipe (CMP).” We recommend these features be labeled in Figure 2-2.
21. Section 2.3 references Figures 2-1 and 2-2, but none of the features discussed in Section 2.3 are shown in those figures. We recommend adding a figure specific to the Southern Subbasin.
22. Section 2.2.4 cites Figure 2-1 where it appears Figure 2-3 was intended.
23. Figures 3-1 should indicate in its caption that the plotted concentrations are for Outfall 22C.
24. Two different footnotes to Exhibit 3-1 are designated with identical two-asterisk symbols.
25. The concentrations in Exhibit 3-1 for the dioxin/furan rows are inconsistently reported in decimal and scientific notation, impeding comparisons. We recommend all numbers in a single row be consistently reported.
26. Section 4.10 states: “Approximately 4,000 gallons of weak acid were released to the ground surface at the WWTP area on the northwestern portion of the property (Figure 2-1).” Figure 2-1 labels neither the WWTP nor the weak acid spill location. We recommend an appropriate label or labels be added to the figure.

27. It would be helpful to indicate in Figure 4-1 the direction of flow in the historical North Doane Lake Drainage Ditch.
28. Section 5.2.4 makes a reference to Table 2-1. That should be Table 5-1.

References

- Anchor QEA and Ede Environmental. 2026. Doane Creek Source Control Evaluation Report. Prepared for NW Natural. Anchor QEA, Portland, Oregon and Ede Environmental, LLC, Portland, Oregon. February 27.
- Oregon Department of Environmental Quality (DEQ). 2010. Guidance for Evaluating the Stormwater Pathway at Upland Sites. Oregon Department of Environmental Quality, Portland, Oregon. January 2009, updated October 2010, links updated July 2017.