Duwamish River Cleanup Coalition

Community Coalition for Environmental Justice • Duwamish Tribe• Georgetown Community Council • Green-Duwamish Watershed Alliance • ECOSS • People for Puget Sound • Puget Soundkeeper Alliance • Washington Toxics Coalition • Waste Action Project

May 14, 2004

Mr. Ravi Sanga
US Environmental Protection Agency
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Dear Ravi:

The Duwamish River Cleanup Coalition has reviewed the Port of Seattle's Draft T-117 Preliminary Boundary Technical Memorandum and offers the following comments.

It is important to recognize the numerous stakeholders with an interest in and/or impacted by the Port's proposed cleanup boundary and pending cleanup action at the Port's Terminal 117/former Malarkey Asphalt property in the South Park neighborhood. Stakeholders with an active interest in this cleanup area (Early Action Area 5) include: local community organizations, such as ECOSS and the South Park Neighborhood Association; affected businesses, such as the adjacent South Park Marina; environmental organizations, both local and regional, such as the South Park-based IM-A-PAL Foundation, Waste Action Project, Puget Soundkeeper Alliance and People for Puget Sound; organizations concerned with health impacts from environmental toxins and the site location within a low-income/minority neighborhood, including the Community Coalition for Environmental Justice, Washington Toxic Coalition, SeaMar Community Health Clinic/Americorps, the International District Housing Alliance, the University of Washington's Center for Environmental Health and the broad-based Collaborative on Health and the Environment; fishers, tribal users and natural resource agencies and trustees concerned with the health of the river's threatened salmon populations; and individual residents and recreational users of the Duwamish that may be directly impacted by toxins in sediments or indirectly affected by the influence of contaminated lands and shorelines on land values and public community uses within the South Park neighborhood.

EPA and the Department of Ecology should recognize the multitude of uses and concerns affected by cleanup decisions at the Port's Terminal 117 property, as well as the potential interest of multiple parties in the data generated. This project is proceeding under an unusually high level of scrutiny, which has not been assisted by the delayed release of data relevant to reviewing cleanup documents, unreviewed deviations from sampling and survey protocols, failure to provide clear justification for technical proposals, and apparent omissions of critical information. DRCC hopes that EPA does not approve any boundary proposal – preliminary or otherwise – until all of these issues have been resolved to the satisfaction of the trustees and stakeholders reviewing the Port's technical memorandum and supporting data.

1. Use of the PCB CSL to determine boundary is not protective

The Port has proposed placing its eastern (navigation channel) boundary based largely on the limits of recorded CSL (cleanup screening level) exceedances for PCBs, and secondarily along a line that appears to offer a simple, straight line for future engineering ease. The boundary proposal does not offer a clear justification of how the boundary was determined in the absence of data showing

exactly where CSL exceedances drop off. The line appears driven by engineering considerations rather than data or interpolations based on existing information. In addtition, CSL exceedances at depth occur outside of the preliminary proposed boundary at the north end of the site, which is inconsistent with the stated rationale.

Further, DRCC concurs with NOAA and the Muckleshoot Tribe that the use of the PCB CSL (65 mg/kg-OC) as the cleanup boundary driver at this site is not protective of the environment. The cleanup is intended to remove elevated risks to the environment and human health. While CERCLA (Superfund) does not require cleanup until contaminant levels exceed the CSL, cleanups should aim to reduce risks to below the SQS, above which Washington State water quality standards recognize environmental harm is possible. Not only does this make sense within the goals of the Superfund and Washington State MTCA program, it would also support complementary efforts under the Clean Water Act to remove risks from the river that would otherwise have to be addressed under the CWA's TMDL (total maximum daily load) program, and under the federal Endangered Species Act to assist salmon recovery within the lower Duwamish River. NOAA has provided EPA with peer-reviewed data showing that juvenile salmon are harmed when exposed to PCB levels between 7.5 and 15 mg/kg. Setting cleanup levels at the CSL (65 mg/kg) would fail to protect salmon in the river. The SQS (12 mg/kg) falls within the range required to protect salmon. To guarantee protection for ESA-listed salmon, cleanup levels at T-117 and elsewhere on the river should be set at levels at least below the 12 mg/kg SQS level and preferably below the salmon protective level of 7.5 mg/kg. The cleanup boundary at T-117 should be adjusted to include all sediments with PCB concentrations above the SQS, and ideally above the threshold that cause harm to juvenile salmon. Based on the data provided, this boundary would closely follow the dredged navigation channel east of the T-117 shoreline.

It is not appropriate to use the CSL in setting site boundaries. To the extent the CSL is considered, it should be in the context of remedy selection, not establishment of site boundaries.

2. North and south cleanup boundaries not justified

The Port proposes that the north and south borders of its T-117 property be set as the boundaries for cleanup. However, PCBs and other contaminants originating at T-117 and the former Malarkey Asphalt operations on site likely do not end at the property boundary. In fact, SQS exceedances have been recorded both north and south of the property. Expanding the cleanup boundary to all areas with SQS exceedances, or above 7.5 mg/kg, would require expansion of the cleanup beyond the north and south property lines. Very little data has been collected by the Port north of the T-117 site, despite the fact that the property leased by South Park Marina to the north is also owned by the Port. The limited data at this border indicate greater PCB concentrations at depth. The sediments in this area should be further investigated, including collection of samples at depth, and a boundary set based on sediment chemistry and risks, rather than property parcel lines.

3. Upland/bank boundary is artificial and may undermine cleanup

The Port recognizes that the upland bank of T-117 is highly contaminated and must be removed as part of the Superfund cleanup at this site. We support this conclusion. However, the proposed upland boundary is not justified and may undermine cleanup efforts throughout the site. This is not an issue for independent consideration by the Department of Ecology's Source Control Program, but an integral part of the cleanup effort: the entire contiguous footprint of contamination within the intertidal, bank, and tidally influenced soils needs to be included in the cleanup boundary in order to fully address the contaminated area. An artificial division between cleanup and source control is

inappropriate if cleanup would cleave a contiguous contaminated area, leaving the remainder to as-yet-undefined source control efforts.

The Port recognizes this issue in its inclusion of the bank materials within the cleanup boundary in order to reduce the potential of erosion of contaminated soils from the uplands, but inappropriately concludes that groundwater discharges, including shoreline seeps, will not continue to transport contaminants from contiguous uplands to the site. The available data does not support this conclusion. The Port further points out that the shoreline soils in the area are "loose to medium dense sand with variable silt and gravel content (fill), overlying very loose sandy silt to silty sand." The loose and porous nature of the shore zone will likely allow tidal action and groundwater to continue to transport fine contaminated particles from the uplands through the bank to the sediment cap. Fine particulates can be observed suspended in groundwater flows in several seeps in the vicinity. There is evidence that the neighboring Port property to the north settles at a rate of up to 1/4 inch/year due to loss of upland soils to the river via groundwater flows and tidal action (inextricably co-mingled in this area). It is also unknown whether additional solid or liquid waste exist in the bank behind and under asphalt "debris", barrels and associated product visible throughout the T-117 bank.

The agencies have stated that the T-117 upland soils have previously been remediataed to 25 ppm. It is our understanding that PCBs remain in significantly higher levels at depth (below four feet), and that some post-remediation data reveals levels above 25 ppm in the cleanup horizon as well. Even at 25 ppm, upland soils are well above the SQS, and if transported to the river can recontaminate the proposed cleanup area. We are concerned that the asphalt cap over the previous PCB removal area not be misrepresented. While it would prevent dermal contact with underlying PCB's, and provides a very limited barrier to direct infiltration, it does not prevent the movement of groundwater or act as a barrier to potential spills or plumes of contaminants that may mobilize PCB's. Far too little is known about the history or extent of spills of fuels and solvents in the area to have confidence in the asphalt cap's potential to have any effect on preventing or limiting migration of PCB's from the nearshore upland area to the river sediments. It is also currently unknown whether groundwater seeps through this area are actively transporting PCB contaminated soils to the river sediments, but some data exist to indicate that this is possible (Table 5-3, Draft T-117 Preliminary Boundary Technical Memo, Port of Seattle, April 28, 2004). This data was collected from seeps discharging to the north portion of the site, where some of the highest levels of bank and sediment contamination have been found.

The cleanup should include the entire contiguous footprint of PCB contamination in the sediments and the soils, rather than artificially drawing the boundary at the border of the Port's paved cap. Failure to do so represents an incomplete cleanup and may cause recontamination of the remediated portion of the site. One comprehensive cleanup is also likely to be more cost-efficient and less disruptive to the surrounding community than a piecemeal approach to upland and sediment cleanup.

4. Boundary at south drainage ditch unsupported

The Port has proposed extending the boundary inland to encompass a portion of the south drainage ditch, where levels of PCBs as high as 4,600 mg/kg have been found. However, the Port has not determined how far up the south drainage ditch these extremely elevated PCBs concentrations extend. Two samples were taken, the more upland location having highest concentrations. The proposed boundary closely crops the cleanup just past this sample location. No additional samples were taken to determine how far the PCB exceedances extend, and no effort was made to trace them to their source. The boundary proposal fails to summarize or discuss this data or offer a justification for this portion of the boundary. The extent of PCB contamination in the south ditch needs to be

determined, and the entire extent included in the cleanup. Further, an investigation of the source(s) of these PCBs must be included in the analysis. As it stands, there is no basis for closing the cleanup boundary at this point.

5. PCBs may be transported in groundwater as particulates; omitting data is improper

The Port sampled three groundwater seeps for PCB and other contaminant analysis. Inadequate consideration of recontamination from phthalates reported in these seeps is addressed above. Seep sample #T117-SW-3, collected at the northern shoreline in proximity to the highest PCB soil and sediment concentrations, showed PCBs at 0.94 ug/l, far in excess of the water quality standard of 0.03 ug/l. The Port then repeated the sample and centrifuged out all particulates with a non-detect result for PCBs. This second sample protocol is entirely inappropriate. PCBs are not highly water soluble, typically adhering to particulate matter. It is this same property that contributes to their persistence in the environment. If, as is observed as numerous seeps in the vicinity, seeps are transporting particulates, it is completely improper to remove those particulates from the collected seep samples. The Port theorizes that its samples were contaminated with entrained sediments. If so, then the sample collection protocol should be addressed, rather than manipulating the sample itself (it will likely be necessary to use two separate methodologies to provide an adequate answer to the question; in any case, centrifuging the samples is not appropriate). It is just as likely, if not more so given visual observations and physical characteristics of the site, that these particulates are transported by the groundwater itself. There is a known history of upland PCB contamination at the site, and recent upland samples collected by the Port continue to show high PCB levels. Any particulates suspended and transported by groundwater need to be documented and recognized as a potential source to the T-117 sediments. It is improper to remove the PCBs detected in the seep sample.

DRCC has the following additional comments on the draft T-117 Preliminary Boundary:

- No information is provided in the report on when the catch basins, which showed PCB levels as high as 1,200 mg/kg, had last been cleaned. There is also grossly inadequate presentation of possible sources of PCBs to the catch basins, and a premature determination that the only relevant sources were historical. Data confirming PCBs on the *public roadway* adjacent to the site were considered insignificant, yet are clearly a possible contributing source, though likely not the only one. The warehouse on site was not considered, despite Basin Oil's ongoing use of it for chemical barrel handling and storage. The Port proposes waiting to determine if ongoing sources recontaminate the catch basins, which drain to the river, rather than conducting a full review of potential sources on and adjacent to the site. PCBs in roadway dust must also be addressed. This presents a direct exposure route to any South Park residents using this public roadway or exposed to the dust blown off site.

- It is of further concern that the catch basins and storm drains from this waste site have been and may still be discharging as a point source to the Duwamish. What is the current status of the NPDES permit for this facility? If there is not one, why is it being allowed to discharge PCB's without a permit, including monitoring and strict limits on pollutants that can be discharged?

- Phthalates were detected in groundwater seeps, yet no discussion of potential recontamination of the site by phthalates is presented. Additional data and a more complete analysis of phthalate sources is warranted.

- Data to the north of the proposed boundary is limited. Additional samples should be collected in this area to determine the full extent of contamination in surface and subsurface sediments in the vicinity of T-117. Alternatively, or additionally, other potential data sources should be reviewed. The South Park Marina has conducted dredging within the marina in the past. They or agencies responsible for determining disposal options for dredged sediments may be a source of existing data on PCB concentrations to the north of T-117.

- EPA should request that NOAA conduct a field survey for NAPL seeps and potential sources at the site. The Port has indicated that it does not consider NAPL to be an issue of concern. This should be independently verified. NOAA has indicated willingness to provide this service.

- More investigation is needed to determine the extent of TBT (tributyltin) and pentachlorophenol contamination at and adjacent to the site.

- The T-117 Preliminary Boundary Technical Memorandum fails to summarize all relevant data. After receiving complaints from DRCC and the Trustees, EPA provided additional data reports not distributed with the boundary proposal with the statement, "This data is also summarized in the draft Technical Boundary Memorandum that you should have received both electronically and by hard copy." However, in addition to the omitted catch basin data summary cited above, the report also omitted supplemental sediment sample results, including the exceedances at locations T117-SE-70-G, T117-SE-71-G and T117-SE-72-G). DRCC has not made an effort to fully review all data in the numerous draft data reports. EPA should conduct a comprehensive review of the data and require the Port to include all omitted data in the final report.

- The report should provide information on which sediment samples correspond with seep sampling locations, as required by the approved sampling plan. DRCC notes that the "higher than expected" PCB sediment samples correspond with the seep in which PCBs were found at the northern portion of the site.

- The statement that, "Groundwater and shoreline seeps do not appear to be transport pathways for contaminants of concern in the sediment," (p.19) is not supported by the data and should be removed.

- The Preliminary Analysis of Recontamination implies that stormwater and groundwater flows to the river may be rerouted or eliminated with the bank excavation and capping, eliminating potential sources of recontamination. Any diversion of natural seeps and flows to the river will only reroute where associated contaminants are deposited and may be in violation of local regulations and codes.

- The report does not adequately address the potential for PAH recontamination from adjacent contaminated sediments in the river.

- The catch basins on the maps should be numbered corresponding with the catch basin sample results so a reviewer can determine which sample results correspond with which catch basins.

- The seep sample locations should be included on Map 6–1; only one seep is shown, which is misleading.

Thank you for the opportunity to comment on the draft T-117 Preliminary Boundary Technical Memorandum. We look forward to your response.

Sincerely,
BJ Cummings
Coordinator
Duwamish River Cleanup Coalition