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VIA EMAIL AND U.S. MAIL

Hylebos NRDA Settlement Proposal Comments
Attn: Ms. Gail Siani
NOAA Damage Assessment and Restoration Center NW
7600 Sand Point Way NE
Seattle, WA 98115-0070

Re: Hylebos Waterway NRDA Settlement Proposal
Comments On Behalf Of Cenex Ag, Inc.

Dear Ms. Siani:

On behalf of my client, Cenex Ag, Inc. ("Cenex"), thank you for providing this opportunity to comment on the Hylebos Waterway Natural Resource Damage Settlement Proposal Report ("NRD Settlement Proposal").

The NRD Settlement Proposal represents a substantial and dedicated effort by the Natural Resource Trustees ("Trustees") to develop an approach to resolve NRD claims without litigation. We appreciate the hard work that went into the NRD Settlement Proposal.

General Comments on Settlement Proposal

Cenex has significant concerns with respect to how the Trustees used the habitat equivalency analysis ("HEA") to calculate the extent of injuries to sediments and how discounted service acre years (DSAYs) were allocated to individual facilities.

The Cenex facility was allocated DSAYs based on releases of polycyclic aromatic hydrocarbons ("PAHs"). The following is a summary of the problems we have identified with respect to PAHs that we believe have resulted in a substantial overestimation of impacts to sediments throughout Hylebos Waterway (the enclosed technical memo provides further details on our concerns and asks specific questions to allow us to better evaluate the NRD Settlement Proposal):

- The Trustees used weighting factors to elevate data, including PAH data, collected by the Hylebos Cleanup Committee ("HCC") to make it comparable to data collected by the Trustees. The HCC data was collected under EPA oversight and was analyzed pursuant to EPA-mandated procedures. The NRD Settlement Proposal does not describe the analytical

procedures used by the Trustees. The Trustees' use of weighting factors is arbitrary and, unless justified, not acceptable.

- The threshold of 1 part per million ("ppm") for injuries resulting from exposure to PAHs is problematic for several reasons. Without explanation, the Trustees used a different suite of PAHs than were used to develop the Apparent Effects Thresholds that are the basis for the Washington State Sediment Management Standards ("SMS"). The SMS represent accepted definitions of impacts to marine sediments. The SMS have been duly promulgated through an intensive public comment process. The NRD Settlement Proposal does not explain why the Trustees believe it is necessary to use a different set of PAHs to identify impacts to sediments.

- The PAH injury threshold is based on tumors and other sublethal effects to English sole. As explained in the enclosed technical comments, tumors and sublethal effects are not necessarily indicative of impacts to growth or mortality of English sole. Further, the Trustees' methodology ignores other contaminants that may have also contributed to the impacts to English sole. We believe that the Trustees have arbitrarily designated an extremely low injury threshold for PAHs and that has resulted in an overallocation of DSAYs to Cenex and many other parties in Hylebos Waterway.

- The Trustees used other artificial manipulations for PAHs. PAHs are assigned a 20 percent service loss above the 1 ppm threshold. Yet other compounds are assigned a 5 percent service loss when exceeding their lowest threshold. The reason for the different treatment is not stated. Further, the Trustees used a value of one-half the detection limit when sediment chemistry concentrations (including PAHs) were not detected above the method detection limit. Using this methodology in combination with the low threshold value for PAHs significantly exaggerates the impact of PAHs in Hylebos Waterway.

- No distinction is made between different types of PAHs in identifying specific footprints. Kaiser Aluminum contributed tons of PAHs to sediments during its years of operations that are much more toxic than PAHs resulting from use of diesel or petroleum products. Yet the Trustees' allocation of PAHs does not account for differences in toxicity. We believe this is blatantly unfair to all of the parties other than Kaiser.

Together, all of these arbitrary, unjustified manipulations with respect to PAHs substantially inflate the results of the HEA approach. We acknowledge that HEA is being used as a tool for settlement purposes only. Nonetheless, the Trustees have a responsibility to use good science and provide clear explanations when calculating their inputs into the HEA model.

Specific Comments Regarding Cenex Allocation

Cenex was designated by EPA as a *de micromis* party for its contributions of contaminants to Hylebos Waterway, *i.e.,* Cenex's contributions were minimal. Cenex questions the methodology of the NRD Settlement Proposal, which results in an allocation to Cenex of 6.895 discounted service acre years ("DSAYs"). This number seems considerably more than a *de micromis* result. The NRD Settlement Proposal does not provide any information to justify why a very small party like Cenex should be treated so differently by EPA and the Trustees for the same releases of hazardous substances, especially given the statutory requirement that the Trustees demonstrate that a particular release caused the alleged injuries to natural resources.

Further, the information referenced by the Trustees with respect to Cenex does not support the allocation of DSAYs. Cenex is allocated DSAYs for releases of PAHs. The only site-specific information on contaminants at the Cenex facility referenced by the NRD Settlement Proposal is contained in Document Numbers 200, 201, and 202. Document No. 200 is an affidavit submitted by Cenex to support its *de micromis* cash-out settlement with EPA. Document Number 201 is a 1992 soil sampling report prepared by Kleinfelder, Inc. The report documents exceedances of Method A cleanup levels in soil, primarily for diesel. But there are no PAH results included in the report. And there are no groundwater results that establish a completed pathway to Hylebos Waterway. This report does not support the Trustees' apparent assumption that PAHs above levels of concern migrated from the facility to Hylebos Waterway sediments.

Document No. 202 is a UBAT Inspection Survey of facilities operated by Miles Transport Services, Inc. The document indicates that no groundwater or catch basin samples were collected during the inspection. Thus, there is no information in this report either that adequately supports the assumption that contaminants onsite migrated to the marine sediments.

The results of the 1992 Kleinfelder report indicate that soil at the Cenex facility was primarily impacted by diesel releases. In addition to the absence of a completed pathway to the sediments, Cenex observes that the type of PAHs that are typically found in diesel are labile, low molecular weight PAHs (LPAHs) such as napthalene. Other facilities near the Cenex facility may have contributed more significant amounts of and more toxic PAHs, including persistent high molecular weight PAHs (HPAHs). Because of their persistence in the environment, HPAHs are more likely to have caused exceedances of the Trustees' PAH threshold levels than LPAHs. The Trustees' methodology fails to demonstrate that the sediment impacts represented by a facility footprint were in fact caused by the contaminants allegedly released from the uplands facility immediately adjacent to that footprint. Cenex further notes that gasoline is not a source of PAHs.

Cash-Out Offer

Cenex requests that the Trustees consider a cash-out settlement offer. Cenex no longer owns the facility in Hylebos Waterway and has no presence or ownership interests in the Commencement Bay area. It will be difficult for Cenex or any company that no longer owns property adjacent to Hylebos Waterway to purchase property in the area in order to build a restoration project.

Moreover, at this time, the scope of and requirements for the restoration projects to be performed are not at all clear. The absence of such information makes it difficult for small parties such as Cenex to approach larger companies that may be considering building restoration projects. Further, the NRD Settlement Proposal provides no reliable method to estimate the dollar value of a DSAY. Without this crucial information, negotiations between small parties and large parties are likely to be unsuccessful.

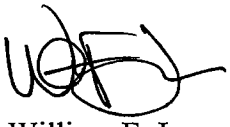
Cenex's preference is that the Trustees consider payment of a cash amount to the Trustees to resolve Cenex's NRD liability. The agreed-upon cash-out amount must have a reasonable, scientific basis. We hope that the Trustees will be receptive to a reasonable offer.

Conclusion

Cenex would like to resolve its NRD liability as efficiently as possible. Please do not hesitate to call me if you have any questions about our comments.

Very truly yours,

OGDEN MURPHY WALLACE, P.L.L.C.



William F. Joyce

WFJ/maz

Enclosure

cc: Roger Tschida (w/encl.)
Malcolm McDonald (w/encl.)

COMMENTS ON DRAFT HYLEBOS WATERWAY NRD SETTLEMENT PROPOSAL

General Questions and Comments

1. The Natural Resource Trustees (Trustees) have indicated that as part of the settlement one of the Potentially Responsible Parties (PRPs) has property available on which it has offered to build a restoration project that is larger than needed to settle its own allocated share of liability. Further, the trustees have said that they would be willing to let other PRPs satisfy their allocated share of liability by buying shares in this project. We would like to be assured that property being offered is appropriate and technically viable for use in a settlement restoration project. As part of it's proposal, we request that the Trustees:

    - Identify the offering party and the specific property or properties proposed for the restoration project

    - Identify the technical problems and limitations to the use of this property for a restoration project, and

    - Provide an evaluation of the appropriateness of the property being offered, relative to: the feasibility, potential alternatives, time required, performance standards, monitoring requirements, and potential cost of property cleanup; and an estimate of the cost and time required for successful restoration of this property.

2. Please explain discounted service acre year (DSAY) calculations for sites where cleanup activities were completed several years ago and for which cleanup levels were at or below injury threshold levels. It would be inappropriate to attribute and assign injury to a site based only on data from neighboring sites or locations from samples taken subsequent to cleanup at the site in question.

3. Calculation and assignment of DSAYs to three significant figures implies an inappropriate and unjustifiable level of precision to the Hylebos NRDA process. This level of precision cannot be supported in general by the habitat equivalency analysis (HEA) process and, more specifically, by the uncertainties in the data, the underlying science, and the language of the report.

Technical

Appendix D: Defining Injuries to Natural Resources in the Hylebos Waterway

- The discussion in this appendix relies in part on reference to publications that are "in prep" or "in press" (e.g., Strange *et al*, Meador *et al*) and that therefore are not available to the parties for evaluation as to their technical relevancy and application to this settlement proposal. This is inappropriate and unacceptable in a case with this level of potential liability to the PRPs. The Trustees should make these documents available for PRP review and comment before developing a final settlement proposal.

- We note that scientists that developed Apparent Effects Thresholds (AETs) for the Department of Ecology's Sediment Management Standards (SMS) and scientists for the Trustees used different polycyclic aromatic hydrocarbons (PAHs) in studies resulting in calculated impact thresholds. While Table 7, page 13 lists the16 PAHs purportedly used to represent Total PAHS in NWFSC studies of PAH effects on English sole, this table is in fact a list of the 16 EPA Priority Pollutant PAHs. This is incorrect. These are not the PAHs NMFS scientists used to calculate the English sole effect number. In the NMFS analyses, Johnson (2000) used a different suite of 18 PAHs that differs significantly from the EPA priority list in both low and high-molecular weight PAHs. This results in not only an "apples to oranges" comparison with other criteria such as SMS (because even the NOAA/NMFS breakdown of low molecular weight PAHs and high molecular weight PAHs does not agree with the SMS list). This also creates difficulties in comparing data sets, which is discussed further in the Addendum to Appendix D section below. Finally, this more extensive PAH list (18 versus 16) could certainly have significant ramifications at lower concentrations, such as the 1 ppm English sole "Fish Sublethal Effect 1" concentration used in the analyses.

- There are numerous issues with the English sole "Fish Sublethal Effect" criteria. Given that the numbers were calculated via hockey stick regression from the National Benthic Survey Program (NBSP) environmental dataset, what evidence is there that tumors and other sublethal effects observed are due to PAHs versus other contaminants present in these sediments? In almost all, if not all, cases, PAHs measured at individual data points co-occur with other contaminants such as PCBs, as the NBSP sampling focused on contaminated embayments. Synergistic effects thus are ignored, and effects attributed solely to measured PAHs. This approach is not necessarily supported by other NMFS studies, such as Myers et al (1998) that identified PCBs as a risk factor for neoplasms in sole. Thus, this proposed settlement approach potentially over-attributes effects to PAHs and downplays synergistic effects that may be required for the development of certain sublethal effects.

- Using liver lesion development, particularly in a sensitive species such as English sole, as some evidence of population-level impairment or even individual fish impairment is not appropriate. Johnson and Landahl (1994) examined the question of lesion relationship to population level effects in their study of estimated annual mortality rates from heavily and minimally contaminated sites in Puget Sound, and in sole with and without selected hepatic lesions, including neoplasms. In this examination of a large data set comprising many field-sampling events, mortality rates in sole from heavily contaminated sites or in sole with toxicopathic liver lesions were not significantly higher than those for English sole from Puget Sound as a whole. Maximum ages and percentages of fish 15 years of age or older were determined for English sole with and without hepatic lesions and from different embayments. The relationship between maximum age and percentage of older fish collected and levels of PAHs and PCBs in sediments was examined. The maximum age of fish collected was similar for animals with and without lesions. There was no evidence of increased age-related mortality in fish with lesions or residing at contaminated sites. In fact, the age of sole and the percentage of animals greater than 15 years of age tended to be correlated with elevated concentrations of PAHs and PCBs in sediment. This study found no detectable

effect of pollution on survival of English sole in Puget Sound, at least for animals greater than or equal to 3 years of age. And in fact, maximum age and percentage of very old fish actually were positively correlated with increasing sediment concentration. Contaminant-related liver disease was not associated with increased mortality of English sole, or with an absence of fish of older age classes. Paradoxically, instantaneous mortality and annual survival rates actually appear to be higher in fish with neoplasms than in fish without lesions, and neoplasms are even suggested to be protective for acute effects of toxicants. Therefore, lesions are not contributing to mortality in a way that is significant compared to other sources of mortality (such as fishing pressure, predation, and fluctuations in food supply).

- Service losses attributions appear arbitrary. For instance, PAHs are given a 20% service loss above the 1 ppm threshold, yet other compounds are given 5% when exceeding their lowest threshold. This approach is not substantiated, but rather seems to be based on how the Trustees view individual compounds without significant justification for this viewpoint. For instance, in the case of PAHs, the higher service loss attribution is justified by more of the community being affected by PAHs, but this logic seems specious. PAHs are significantly metabolized by fish and even some invertebrates, and are not subject to biomagnification like compounds such as DDT and PCBs.

Addendum to Appendix D: Sediment chemistry data preparation

- When HCC and Trustee paired results were compared, the Trustee results were higher 80% of the time. Instead of averaging or in some way achieving a median between these values, the Trustees developed weighting factors to elevate the HCC data. Little justification was given for this approach, other than the Trustee lab "...expended more effort extracting and preparing samples." However, without a head-to-head comparison of lab standard operating procedures and methods used, there is no additional justification presented for this assessment (and SOPs would be specific about exactly these issues, such as extraction time). Furthermore, while the HCC labs (under CERCLA) would be bound to use largely EPA-accepted methods, the Trustee lab is not under the same level of scrutiny or requirement for standard methods. As an example, Trustee labs adjust their data according to an internal standard correction, which is not allowed by EPA methods. Automatically assuming the Trustee lab results are superior seems unjustifiable.

- In the Trustee's presentation of the HEA model, they indicated that when calculating sediment chemistry concentrations a value of ½ of the detection limit was used in those instances when chemicals were not detected above the method detection limit. Considering their use of very low threshold concentrations for PCBs and PAHs, using ½ of the detection limit for non-detects could have severe consequences for PRPs. There are a number of statistical methods for treating truncated data. The Trustees (or the PRPs) may want to consider reexamining the chemical data using such a statistical method.

- Ironically, PAH and PCB concentrations (which have the lowest NMFS-derived thresholds) received the highest HCC to Trustee data "correction" factor, and were not subjected to the same SYSTAT statistical analyses to derive this "correction factor" as were other compounds. This would serve to further unreasonably magnify the damages attributed to PAHs and PCBs.

- It was not clear how the different PAHs were summed – the NMFS threshold PAH list should be different than the EPA priority pollutant PAH "standard" summing, yet this was not apparent. Did the HCC data set contain the expanded and differing NMFS list of 18 PAHs so that head-to-head comparisons could be made? Were SMS comparisons made using a different list?

- The footprint mapping was conducted using the entire data set. Undetected compounds were assigned a value of ½ the detection limit. Chemical concentrations were interpolated using a simple inverse distance weighting (IDW) procedure on log transformed point data, apparently because of limitations in the program used by the Trustees. IDW uses the distance to the nearest neighbors and an inverse power function to calculate chemical concentrations in the area between each sampling station. More advanced geostatistical contouring methods, such as kriging, are available and are more appropriate for this kind of modeling.

Appendix H: Natural Resource Damage Allocation

- Allocation of liability to a site due to certain classes of SOCs based on adjacency seems not necessarily to have considered established causation and possible magnitude of causation liability for that site, and may not adequately reflect the proximity of the site to another site where the causation and connection would be more probable and the magnitude of injury much larger. For example, the Cenex facility is assessed a major portion of its NRD liability due to PAHs linked to a Site Activity Report noting the removal of a diesel UST and detection of diesel-contaminated soils. This assessment of NRD liability is presumably based solely on labile, low molecular weight-PAHs that might be found in diesel fuel, while sites in the vicinity have been demonstrated to be major contributors of both low and more persistent high molecular weight PAHs, and thus would have a far larger and more significant contribution toward the any PAH threshold exceedance and resulting PAH footprint.

References

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