



**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 10
OREGON OPERATIONS OFFICE
811 S.W. 6th Avenue
Portland, Oregon 97204**

August 31, 2006

MEMORANDUM

SUBJECT: Region 10 Response to CSTAG Recommendations
Portland Harbor Superfund Site

FROM: Chip Humphrey, Remedial Project Manager
Eric Blischke, Remedial Project Manager
Region 10

TO: Steve Ells and Leah Evison
Co-chairs, Contaminated Sediments Technical Advisory Group

The EPA Region 10 Portland Harbor project team appreciates the opportunity to work with the Contaminated Sediment Technical Advisory Group (CSTAG) and for the comments and recommendations CSTAG provided on May 1, 2006. Our response to CSTAG's recommendations is provided below. We will continue to consider these recommendations as we complete the ongoing Round 3 data collection and evaluation, and the Remedial Investigation, Feasibility Study, and cleanup decision-making for the site.

CSTAG Recommendations and Region 10 Responses

1. In making a final decision on sampling to be included in Round 3, CSTAG recommends that the site team consider what additional information is necessary to make remedy decisions and focus on collecting these data. For example, the site team should clarify how the collection of transition zone groundwater, bivalve, or stomach contents data would affect site remedy decisions.

Regional Response: The Portland Harbor project team has divided Round 3 sampling efforts into two categories. The first category (Round 3A) includes data for which it is clear that the data is needed. This includes additional surface water sampling, data required to help determine background and site boundary, lamprey ammocoete tissue and pre-breeding sturgeon tissue. Collection of additional transition zone groundwater, bivalves and stomach content is not included as part of Round 3A. The majority of the Round 3 data gaps have been rolled into a 3B sampling program. Although EPA has identified potential 3B data gaps in its December 2, 2005 Identification of Round 3 Data Gaps memo and February 17, 2006 Round 3 Scope of Work, these data gaps will be finalized based on a comprehensive review of site information to be

presented in the Round 2 Comprehensive Site Summary and Data Gaps Report (Round 2 Comprehensive Report). This will allow us to identify and reach agreement on the data necessary to complete the baseline risk assessment and evaluate remedial action alternatives in the feasibility study.

2. CSTAG recommends that the site team consider conducting a sensitivity analysis of the food web model by varying input values for the components of the model to get a better idea of whether additional data collection will substantially affect model predictions and impact the selection of remediation goals. For example, collection of zooplankton and/or phytoplankton data may not affect remediation goals or remedy decisions.

Regional Response: The next iteration of the food web model (to be included in the Round 2 Comprehensive Report) will include a probabilistic-based sensitivity analysis. This analysis will be used to help identify Round 3B data gaps, including whether collection and evaluation of zooplankton and/or phytoplankton data will affect selection of remediation goals.

3. CSTAG recommends that the site team work to integrate upland and river data in order to refine the conceptual site model (CSM) and evaluate whether sources are adequately controlled.

Regional Response: Region 10 agrees and clearly understands the need to integrate upland and in water site data. The Round 2 Comprehensive Report will include a site wide conceptual site model (CSM) that considers the entire lower Willamette River watershed. In addition, the Round 2 Comprehensive Report will use the results of a screening level risk assessment to identify areas of potential concern (AOPCs). AOPC specific CSMs will also be developed. The AOPC specific CSMs will consider both upland and in-water sources of sediment contamination in a comprehensive way. Efforts toward integrating upland and in-water information are occurring on a number of other fronts. For example: 1) The recently finalized Joint Source Control Strategy specifies the development of milestone reports to be submitted on a biannual basis; 2) The Lower Willamette Group (LWG) recently submitted a Groundwater Pathway Assessment Report that summarizes transition zone water data collected last fall in areas of contaminated groundwater discharge; 3) EPA, the State of Oregon Department of Environmental Quality (DEQ), and the City of Portland are working on developing and implementing a comprehensive stormwater evaluation strategy to better understand the contribution of stormwater to in-water risks and recontamination potential.

4. Although CSTAG understands that the site boundary will be described in the Record of Decision, we recommend that, to the extent possible, the Round 3 sampling effort consider potential sources of contamination at the upper end of the study area to clarify site boundary issues. CSTAG warns against an overly-broad definition of the site, which may lessen the site team's ability to design an effective remedy. CSTAG notes that, while it is important to be aware of contaminant contributions from outside the site, other authorities rather than expansion of the site may, in some cases, be the best way to address the contamination.

Regional Response: Region 10 agrees that in some cases other authorities may be the best way to address contamination contributions to the site. The project team has identified additional sampling needs upstream and downstream of the current study area (RM 2-11) that will be conducted as part of Round 3 to help establish site boundaries. The downstream sampling will extend 1 to 2 miles downriver and into Multnomah Channel to help determine the extent of contamination from the study area and areas which have not been previously characterized. The proposed upstream sampling locations include areas of suspected sediment contamination just upstream of the current study area. The project team believes that this information is needed to make site boundary decisions because of the close proximity of these suspected sources to the current study area. Although other potential sources of contamination are present upstream of the current study area, these sources are currently being addressed through other programs and authorities.

5. CSTAG recommends that the site team consider how post-remedial monitoring will be conducted (e.g., what species and what scale) to measure remedy effectiveness, and whether the RI data collection effort will provide an adequate baseline data set for comparison to post-cleanup data. If not, additional data should be collected for this purpose in the design phase.

Regional Response: Region 10 has identified collection of additional fish tissue as a Round 3B data gap. One reason for the additional fish tissue sampling recommended by EPA and its government partners is to develop a more robust baseline data set.

6. CSTAG recommends that as remedy alternatives are evaluated, the site team include consideration of Confined Disposal Facilities (CDFs) in their evaluation of disposal options, for example, potential use of the T4 or Ross Island locations as CDFs.

Regional Response: Region 10 recently issued a decision document approving the construction of a CDF at the Port of Portland's Terminal 4 facility. The T4 CDF is currently in design phase. Region 10 will ensure that CDFs such as the planned T4 facility are properly evaluated as disposal options in the feasibility study.

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