

RESPONSES TO COMMENTS ON ASSESSMENT PLAN OUTLINE

1. Activities Occurring in Phases 1-3

Many commenters had questions concerning the work to be done in each of the first three phases of the Portland Harbor Phased Damage Assessment. They suggested that some types of studies and the use of some types of quantification methodologies should be deferred to Phase 3. They urged the Trustees to rely on existing information for Phase 2 to the maximum extent possible and to minimize the use of new studies.

Response - In responding to these comments, it is better to start at the end of the damage assessment process and work back to the beginning.

Phase 3 is the complete Natural Resource Damage Assessment as contemplated by the DOI NRDA regulations, 43 C.F.R. Part 11. This phase will include:

- Injury Determination - 43 C.F.R. §§ 11.61-11.64
 - This includes identification of CERCLA releases, pathways (including fate and transport of the CERCLA releases), and identification of each injury to each natural resource that resulted from or was caused by the CERCLA releases. This injury determination phase may include significant sampling, testing and analysis of specific natural resources to determine injury and its causation.
- Quantification - 43 C.F.R. §§ 11.70-11.73
 - This includes determination of issues such as baseline, quantity and quality of services lost as a result of each injury to natural resources, and development of a resource recovery analysis.
- Damage Determination - 43 C.F.R. §§ 11.80-11.84
 - This includes development and implementation of a plan for determining and costing appropriate activities to restore, replace or acquire the equivalent of injured natural resources, and/or for determining the value of the services lost as a result of injuries to natural resources.

Phase 2 is an intermediate step, not required by the DOI NRDA regulations. It will use existing data, reasoned estimates, conservative, simplifying assumptions to the extent possible and guidance in the DOI regulations, with the goal of arriving at realistic early settlement opportunities for participating parties. In order to reach Phase 2 settlements, the Trustees may implement some studies outlined in the Assessment Plan. *See* 43 C.F.R. §§ 11.30-11.38. Participation in the early settlement process is limited to those parties who are funding Phase 2 activities, including an NRD-specific liability allocation process. Phase 2 components include:

- Estimated Injury Determination and Quantification – The purpose of this step is to identify and quantify natural resource injuries and/or lost services. Phase 2 will

- consider all natural resources potentially injured by the CERCLA releases. The Phase 2 estimated injury determination and quantification will combine 1) information gained from the Phase 1 literature and data review and the results of the three early studies conducted during Phase 1; 2) reasoned estimates based on conservative assumptions to fill data gaps, where appropriate; and 3) additional data collection, where necessary, studies, and analysis to fill other high priority data and information gaps.
- Estimated Damage Determination – the Phase 2 Damage Determination will estimate damages needed to restore, replace or acquire the equivalent of the injured resources and to compensate for lost use. All of the methodologies listed in 43 C.F.R. § 11.83 will be considered to select the most appropriate methodology or methodologies, depending on injuries and services to be evaluated. It is likely that damage determination methods will not be limited only to the use of habitat equivalency analysis (HEA) or resource equivalency analysis (REA).
 - An NRD-Specific Liability Allocation Formula – an NRD-specific allocation formula will be included in Phase 2 to be funded by participating parties. This will be used to determine the percentage of damages for each PRP. It has not yet been determined whether the remedial allocation effort will include an NRD-specific allocation. If it does, the costs for NRD-specific liability allocation activities will be greatly reduced.
 - Restoration Project Planning Process – the restoration project planning process will identify specific projects that could be used by participating parties to compensate for damages.. This step will also include development of a programmatic EIS.
 - Settlement Process – the goal of Phase 2 is to be able to enter into reasonable early settlements with participating parties at or near the time EPA issues its Record of Decision (ROD). No site-wide settlements will be entered into before the Phase 2 process is completed. However, the Trustees will consider early restoration projects that are completed during Phase 2 by participating parties as potential offsets to site-wide liability. Such projects must meet the Trustees’ restoration criteria, and any “credit” generated by the project will be banked until that party’s site-wide liability is determined through the Phase 2 process. Specifics of the settlement process will be put in place as the damage and allocation components are closer to being finalized.

The Phase 1 process includes:

- Assessment Plan – development of the plan for completing the full Natural Resource Damage Assessment as contemplated by the DOI NRDA regulations. This plan will include:
 - Results of the literature and data review - review of existing site data collected as part of the remedial process, as well as other relevant data and literature to determine known injury and/or damage,
 - Identification of data gaps and the data collection, studies and/or analysis necessary to fill those gaps, and

- Phase 2 Work Plan (appendix) – identification of and general scope for studies to be conducted in Phase 2 to collect information necessary to reach settlements at or around the time of the issuance of the ROD.
- Three early studies - Three specific studies [salmon, lamprey, osprey] necessary to fill known data gaps or which presented an opportunity to obtain useful data at a relatively small incremental cost by piggybacking on studies already being conducted by other entities.

The key to the success of this phased approach to early settlement is the use of reasoned estimates based on conservative assumptions to fill data gaps and information gaps without the need for the extensive data collection, studies, and/or analysis that will be necessary for a full Natural Resource Damage Assessment. By first completing the Assessment Plan, including the identification of additional data collection, studies, and/or analysis that will be necessary in Phase 3, it will be significantly easier to determine the Phase 3 technical work that can be replaced by Phase 2 estimates. A comprehensive planning approach can benefit all parties by dramatically reducing the cost and time needed to complete the Phase 2 Estimated Damage Determination, allowing earlier resolution of damage claims, and providing earlier natural resource restoration. However, it must be remembered that the Trustees' intent was that the first two phases of the assessment would be funded up-front by participating parties. Participating party funding of Phase 1 has only been partially successful. Implementation of Phase 2 will be contingent on adequate up-front funding by participating parties.

2. Geographic Scope of the Assessment

Commenters expressed concerns about the potential scope of the assessment area and urged that the geographic scope of the assessment be limited to the initial study area (ISA). Others asked what criteria would be used to determine the geographic scope and when would the determination be finalized.

Response - To fulfill their responsibilities, the Trustees must consider geographic areas where hazardous substances released from the Portland Harbor Superfund Site have come to be located to determine whether any injuries to natural resources have occurred as a result of those releases. At this point in the assessment process, it is premature to make a final determination related to the geographic scope of the assessment. It is possible that the final determination of the geographic scope of the assessment will not occur until Phase 3.

3. Literature Review

The issues raised by the commenters related to the Phase 1 literature review included requests that the Trustees compile a list of studies and data to be reviewed and that the participating parties have the opportunity to comment on that list, including making suggestions of additional studies or data to be added. One commenter asked how the review will be used in conjunction with existing data, data from the three Phase 1 studies and potential refinements in data when the RI process is completed.

Response - The Trustees will provide a list of the literature and data considered for review to the participating parties. If the participating parties are aware of any other studies or data that would be relevant to the assessment process, they should forward that information to Stephen Zylstra, PhD., Portland Harbor NRDA Case Manager, U.S. FWS, Suite 1100, 2600 SE 98th Avenue, Portland, OR 97266 by January 5, 2009. The Trustees will use the results of the literature review, data review and the Phase 1 studies to determine data gaps that will need to be addressed in subsequent phases of the assessment process. The Trustees will incorporate any refinements related to completion of the RI process into their analysis of data gaps.

4. Phase 1 Studies – Lamprey, Osprey & Salmon

Commenters asked for more information related to the three studies. They requested copies of work plans, QAPPs and the validated data and asked for explanations of the objectives of the studies and how the results will be used in the assessment process.

Response - Lamprey, osprey and salmon are resources of concern for the Trustees that must be addressed in this assessment process. The Trustees recognized that on-going studies related to osprey and salmon could provide information useful to the natural resource damage assessment process at minimal costs. The osprey study will evaluate the extent and magnitude of contamination in ospreys in Portland Harbor and determine if egg tissue chemical concentrations and degree of eggshell thinning in Portland Harbor osprey exceed injury thresholds for this top-level predator. The salmon study will measure whole body concentrations of selected contaminants in Columbia River juvenile Chinook salmon collected above, at and below the confluence with the Willamette River as part of the Lower Columbia River Estuary Partnership Program to determine if these stocks are potentially exposed to sources of contamination from the Willamette River. The field study plans are available, and the Trustees will provide them to interested participating parties. The QAPPs for those studies will be available soon, and again the Trustees will provide those to interested participating parties.

The lamprey study will evaluate the feasibility of sediment toxicity testing on lamprey ammocoetes and will begin to provide information on the toxicity and bioaccumulation of Portland Harbor contaminants in lamprey from a sediment pathway. The Trustees have not yet developed the work plan for the lamprey study. When the work plan is completed, a draft will be provided to the participating parties for their review and comment.

The results of all three studies will be used to determine data gaps that will need to be addressed in subsequent phases of the assessment process.

5. Phase 2 Work Plan

Commenters asked how the Phase 2 work plan would be different from the Assessment Plan. One suggested that the work plan be a separate section of the Assessment Plan

outline and that it should include the assumptions to be used for Phase 2 settlement purposes with respect to injury and baseline. Another asked when the work plan would be completed.

Response – The Phase 2 work plan is a subset of the overall Assessment Plan and will address the work that needs to be done to ensure early settlement for those parties that participate in Phase 2. It will be included as an appendix to the plan.

To develop the work plan, the Trustees will need to consider the results of the literature and data reviews currently in progress. The preliminary findings of the literature and data reviews should be available in February 2009. The results of the three phase 1 studies (lamprey, salmon, osprey) will also provide useful information for development of the work plan. The results of the analyses for salmon tissue and osprey eggs likely will be available before the completion of the lamprey study. Thus, it is possible that the lamprey section of the draft work plan may be revised later to incorporate the results of the lamprey study. The Trustees will provide the draft Phase 2 work plan to the participating parties for their review and comments.

6. Injury Determination

Commenters asked whether all of the resources listed in the draft outline would be part of the early settlement quantification. Others asked which species would be the focus of Phase 2. Several asked how injury levels will be determined for each resource.

Response – As indicated in the response to “Activities Occurring in Phases 1-3”, the starting point for Phase 2 is consideration of all natural resources potentially injured by the CERCLA releases. Injury levels will be developed by relying on literature, reasoned assumptions and/or site specific studies.

7. Development of Assumptions

One commenter indicated that the meaning of “scientifically defensible, conservative assumptions” was unclear. Others stated that the development of assumptions is an important topic that should be discussed by the Trustees and participating parties. Another suggested formation of a technical group to vet the literature Trustees will rely on for assumptions.

Response – The Trustees believe that any assumptions developed for Phase 2 settlements must meet the following criteria. First, the assumption must be supported by credible studies or data that are applicable to the Portland Harbor Site. Studies or data applicable to the Portland Harbor site are those based on relevant contaminants, applicable species or habitat services, and appropriate endpoints. Second, the assumptions must be conservative, meaning they are more, rather than less, protective of the environment. Assumptions meeting these criteria are more likely to withstand a judicial challenge to a settlement.

The development of assumptions will require an exchange of views between the Trustees and the participating parties. The Trustees are still considering what will be the most efficient process for those discussions.

8. Baseline Determination

Several commenters asked how the Trustees will approach baseline determinations, and one suggested that sufficient information existed to streamline the determination. Another assumed that significant baseline work could occur during Phase 1 through the compilation of existing information.

Response - The DOI NRDA regulations define baseline as “conditions that would have been expected at the assessment area had the discharge ... not occurred, taking into account both natural processes and those that are the result of human activity.” 43 C.F.R. § 11.72(b)(1). The regulations further provide that “[i]f available and applicable, historical data for the assessment area or injured resource should be used to establish the baseline.” If such data are not available, “baseline data should be collected from control areas.” *Id.* at § 11.72 (c)-(d).

The Trustees agree that much information exists that may be useful in making baseline determinations. However, the Trustees need to complete their review of the literature and available data related to the site before determining whether application of historical data to define baseline conditions will be practicable. While progress related to baseline determinations will occur during Phase 1, the Trustees anticipate that the work will continue in Phase 2. The consideration of “control” areas will be part of the existing data and literature review.

9. Cultural & Recreational Services, Uses & Values

The comments about cultural resources or services asked how the Trustees will delineate between cultural and ecological services. Would the delineation be done on a geographic basis? How will overlap be addressed? The comments related to recreational services suggested that the Trustees identify specific recreational services of interest and that the Trustees use benefits transfer for scaling recreational losses. One commenter urged the Trustees to defer economic valuation of recreational and cultural losses to Phase 3.

Response – As noted in the response above concerning activities in Phases 1-3, the Trustees will consider potential recreational and cultural losses in both Phases 2 and 3. In the Phase 2 work plan, the Trustees will include a discussion of the data they expect to evaluate and methods they will select from and implement in Phase 2 for estimating all losses. The recreational activities that the Trustees will assess for possible loss of recreational human use services include recreational fishing, swimming, boating (including all types of water craft), wildlife viewing, shoreline and park use, hunting and subsistence uses.

Concerning the delineation of cultural and ecological services, the Trustees recognize the same natural resource can provide both types of services. Ecological losses and cultural losses are separate, compensable components that need to be evaluated. The Trustees will determine the need for additional focused cultural use investigations based on the overall scope of the planned assessment and potential restoration actions. The Trustees anticipate that it is possible that a single restoration project may be able to address both human use and ecological types of losses.

10. Quantification Methodologies

One commenter asked that the Trustees specify which methods will be used in Phases 2 and 3. Others advocated the use of only HEA and REA methods in Phase 2, noting that these methods were useful because they establish a common currency for evaluating injuries and scaling restoration. Another noted that large scale revealed preference or stated preference studies would not be necessary for achieving early settlement.

Response – The Trustees do not, at this time, intend to commit to the use of specific methodologies. Appropriate quantification methodologies will be developed in Phases 2 and 3. The Trustees will discuss briefly the process for selecting methodologies in the Assessment Plan and work plans and will provide more details on the methodologies that will actually be used in additional study plans developed as part of Phases 2 and 3.

11. Pre-1981 Bar to Damages

One commenter noted that the Trustees must recognize CERCLA's pre-1981 bar to damages.

Response - Damages will be determined in those situations where either the CERCLA "damage" or "release" occurred or continues after December 11, 1980, the enactment date of CERCLA. *See* 42 U.S.C. § 9607(f)(1). Several courts have considered this provision. The first court to address the pre-enactment bar stated that "[s]ection 107(f) precludes liability under section 107(a)(4)(C) *only* where (1) all releases ended before December 11, 1980, and (2) no damages were suffered on or after December 11, 1980 as a result of the release." *United States v. Reilly Tar & Chemical Corp.*, 546 F.Supp. 1100, 1120 (D.Minn.1982) (emphasis added). *See also In re Achushnet*, 716 F. Supp. 676 (D. Mass. 1989) ("In cases where the natural resource damages are not divisible and the damages or the releases that caused the damages continue post-enactment, the sovereigns can recover for such non-divisible damages in their entirety."); *Idaho v. Bunker Hill*, 635 F. Supp. 665 (D. Idaho 1986) ("In sum, to the extent that both the release and the resultant damage occurred prior to enactment, Section 107(f) bars recovery. To the extent that both the release and the resultant damage occurred post-enactment, there is no bar to recovery. To the extent the release occurred prior to enactment, but the resultant damage occurred post-enactment, Section 107(f) does not bar recovery.").

12. Double Counting

Several commenters cautioned that the Trustees must avoid double counting of injuries and asked how double counting will be addressed.

Response - The Trustees intend to avoid double counting by carefully evaluating and quantifying all relevant debits and credits to resources and resource services. They will identify interdependent services, if any, to avoid double counting in the damage determination.

13. Early Settlements

The commenters requested a settlement time table and a process for evaluating settlement proposals during Phase 2. One commenter questioned whether parties participating in Phase 2 would have the opportunity to settle substantially earlier than non-participating parties.

Response - As noted previously, the goal of Phase 2 is to be able to enter into settlements with participating parties at or near the time EPA issues its Record of Decision (ROD). This timeframe will permit the Trustees to complete the components listed above for Phase 2 – estimation of injuries and damages, development of an allocation formula and implementation of the restoration planning process.

The Trustees, however, will consider early restoration projects that are completed during Phase 2 by participating parties as potential offsets to liability. Such projects must meet the Trustees' restoration criteria, and any "credit" generated by the project will be banked until that party's liability is determined through the Phase 2 process. If a participating party or a group of participating parties is considering an early restoration project(s), the Trustees urge that party or parties to meet with the Trustees before the project is fully developed. Such discussions would be contingent on a separate funding agreement between the Trustees and that party(ies).

The Trustees believe that parties participating in Phase 2 will be in a better settlement position than those who did not participate. Phase 2 is an expedited process that will rely, to the extent practicable, on existing data, studies and reasoned assumptions, minimizing the need for additional studies or data collection. The costs of an expedited assessment will be much less than the full Phase 3 assessment. Parties settling at the end of Phase 2 will not be responsible for future damage assessment costs. The Trustees are also in the process of considering other incentives for Phase 2 participants and will discuss those incentives with interested parties before Phase 2 begins.

14. Restoration Planning

Some of the commenters were interested in more details related to the criteria for valuing restoration projects and whether some projects might receive "extra" credit. One

commenter pointed out the need to maintain a parallel track on restoration evaluation because of the time sensitive nature of restoration actions.

Response - The Trustees recognize that restoration opportunities in the study area are limited and that planning and implementing a restoration project can take a long time. The sooner a project can be implemented, the sooner it will generate the ecological credits needed to offset liability. Therefore, as mentioned above, the Trustees are interested in discussing with any participating party ideas for restoration proposals. The restoration planning process is also an integral part of Phase 2.

The Trustee Council developed a process to evaluate restoration projects for fish and wildlife for species that may have been injured by releases of hazardous substances in Portland Harbor. The evaluation of projects is based on a site's ability to provide valuable habitat for the injured species, and the criteria were developed based on how species use habitat in the study area, and factors that may increase productivity, abundance, genetic diversity and spatial structure of each species. Other criteria such as the technical feasibility of project implementation, geographic area, and rare and unique opportunities will also be evaluated as part of the valuation process.