Hudson River Field Office
421 Lower Main Street
Hudson Falls, NY 12839

Trustee Comments on the Phase 1 Evaluation Reports for the Hudson River

The Hudson River Trustees -- the United States Department of the Interior, the National Oceanic and Atmospheric Administration, and New York State Department of Environmental Conservation (together, "the Trustees") -- thank you for the opportunity to comment on the Phase 1 Evaluation Reports for the Hudson River PCBs Superfund Site (the "Site").

The Hudson River has a rich tradition of history, literature and art, economic value and outstanding natural resources. Because of its important role in American history and culture, it has been designated an American Heritage River. The natural resources of the Hudson River -- fish, birds, and wildlife of the Upper and Lower Hudson, as well as the habitats that they occupy have been severely degraded for many years by the release of PCBs from General Electric's facilities. Public services including fishing and fish consumption, the use of water resources, and navigational services have been impaired or lost as a result of the PCB contamination. The Trustees are working on behalf of the public to protect and restore those valuable natural resources and their services.

The Trustees have worked with U.S. EPA for many years to maximize the benefits of the remedy for the cleanup and restoration of this nationally important river. The Trustees commend EPA for taking this first step toward remediating the Hudson River and removing almost 20 tons of PCBs. We ask the panel to address a few issues that the Trustees feel may improve the Phase 2 design and compliance with the Engineering Performance Standards (EPS).

SUMMARY OF COMMENTS:

<u>GE's Proposed Changes to the Engineering Performance Standards (EPS):</u> GE's proposed changes to the Residual and Resuspension Performance Standards, including a reduction of PCB

mass removal and an increase in capping, would result in a remedy that would be substantially less protective than that required by the Record of Decision. GE's proposal will further prolong the eventual recovery of the river by leaving behind greater levels of PCBs and limiting habitat restoration and recovery.

Short-term impacts: The Trustees feel that any short term negative impacts to the river from resuspension during the remedy are greatly outweighed by the long-term benefits to the recovery of the river's natural resources. We also feel that if necessary, an extension of project duration would be appropriate if it results in improved compliance with the EPS and accelerated recovery of the river. We urge the panel to consider steps to minimize resuspension and maximize both productivity and the monitoring, control and capture of NAPL. PCB oil was observed at a greater frequency than was anticipated prior to implementation of Phase 1 remediation. The Trustees suggest that the panel undertake serious review of the need to control, capture and monitor sheens and oil release that contribute to exceedances of the EPS.

Depth of Contamination (DoC): EPA has highlighted that the significant underestimation of the DoC contributed to exceedances of the EPS. The Trustees support EPA's recommendations for the use of post-dredging cores to confirm DoC, removal of contaminated wood debris below dredge cut lines and overcuts as ways to help minimize resuspension and residual issues. The Trustees suggest that the peer review panel strongly consider whether additional proactive efforts during the design phase to better characterize and delineate the DoC could further improve compliance with the EPS during Phase 2 remediation.

The same issues that EPA noted which led to an underestimation of DoC (including incomplete cores, sediment PCB heterogeneity for complete and incomplete cores, interpolation methods, how uncertainty was dealt with, and the presence of wood debris) may also affect the accuracy of the horizontal characterization of PCBs. The Trustees therefore suggest that the peer review panel consider recommendations to improve the horizontal characterization and delineation of PCB contamination as another important way to improve compliance with the EPS.

Navigation Channel: The Trustees fully support dredging of the navigation channel as envisioned by USEPA in the ROD (Part 2 Book 1, page 8-32) and in the Responsiveness Summary. Dredging of sediment from the navigation channel prior to the remediation will greatly improve the project's efficiency in meeting the productivity standard. Since the 1980's, maintenance dredging of the Champlain Canal has been curtailed due to the higher dredging and disposal costs directly attributable to the PCB contamination. Dredging of the navigation channel is needed to enable project-related equipment to navigate the Champlain Canal system with minimal interference from in-river obstructions. Navigation channel dredging may also reduce resuspension associated with barges working in channels that are too shallow.

Priority of Standards: The Productivity Standard should be secondary to the Resuspension and Residuals Standards to ensure adequate resources/personnel are available to control and capture any unexpected releases of oil, minimize the length of time individual CUs remain open, and minimize the amount of capping.

Impacts of Higher Levels of PCBs: Results of the Phase 1 remedial design and remedial action sampling demonstrate that PCB contamination in surface sediment is higher, more widespread, and closer to the surface than anticipated in the ROD. PCBs in the sediments are not being buried and are not declining at the rates predicted. In fact, River Section 2 is as contaminated as River Section 1. However, the cleanup triggers for the surface in River Sections 2 and 3 are approximately 75-90 ppm total PCBs, i.e., three times higher than for River Section 1. The Trustees analysis indicates that average PCB concentration in the top 2 inches of the sediment in River Section 2 and River Section 3 after dredging will be approximately five times higher than the models predicted.
http://www.darrp.noaa.gov/northeast/hudson/pdf/Battelle09_Field_NatRecovery_508.pdf

In Phase 2, some areas immediately adjacent to the dredge footprint exceed 50 ppm total PCBs in the surface sediment. This scenario of highly contaminated surface sediments not targeted for remediation, but adjacent to the dredge footprint, may contribute to failures to meet the EPS in Phase 2 due to disturbance during remedial activity and from potential slumping of these adjacent sediments into dredged areas. The Trustees urge the panel to consider this scenario in applying the lessons learned from Phase 1 in the Thompson Island Pool to the rest of River Section 1, and River Sections 2 and 3 in Phase 2 and make suggestions for how to mitigate it.

Unstable slopes and backfill: Also, the Phase 1 design, as implemented, has likely left the river bottom in an unstable condition, which may have contributed to exceedances of the Resuspension Standard. This is primarily due to a design that left behind steep, unstable underwater slopes between the dredged and undredged areas that can serve as a source of erodable fine materials and associated PCBs. Also, inadequate amount and placement of backfill material has significantly reduced the amount of planned habitat reconstruction, which is needed to further stabilize the river and further sequester capped PCBs. The Trustees ask that the panel consider how these may be corrected so as to reduce exceedances of the Resuspension Standard.

Restoration concerns: Through a natural resource damage assessment, the Trustees are working to protect and restore natural resources and their services which have been injured by PCBs. Given that much higher amounts of contamination are now projected to be left behind, the amount and types of restoration that can be implemented by the Trustees in the Upper Hudson River may be restricted. That is, implementation of some restoration projects in these highly contaminated areas may not be feasible.

In conclusion, the Trustees hope that these comments are useful for improving compliance with the EPS and accelerating the recovery of the public's natural resources. We would be happy to provide additional information if needed.

On behalf of the Hudson River Natural Resource Trustees,

Original signed and mailed to EPA on 4/26/10

Tom Brosnan
Federal Lead Trustee
National Oceanic and Atmospheric Administration