RESPONSIVENESS SUMMARY FOR THE STUDY PLAN FOR THE WATERFOWL INJURY ASSESSMENT: DETERMINING PCB CONCENTRATIONS IN HUDSON RIVER RESIDENT WATERFOWL

HUDSON RIVER NATURAL RESOURCE DAMAGE ASSESSMENT

HUDSON RIVER NATURAL RESOURCE TRUSTEES

STATE OF NEW YORK

U.S. DEPARTMENT OF COMMERCE

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This *Responsiveness Summary for the Draft Study Plan Waterfowl Injury Assessment PCBs in Hudson River Resident Waterfowl* was prepared by the Hudson River Natural Resource Trustees (Trustees) - New York State, the U. S. Department of Commerce, and the U. S. Department of the Interior. The Trustees are working cooperatively to conduct a Natural Resource Damage Assessment (NRDA) for the Hudson River (Hudson River Natural Resource Trustees 2002). This Responsiveness summary provides Trustee agency responses to public comments on and questions about the Trustees' *Draft Study Plan Waterfowl Injury Assessment, PCBs in Hudson River Resident Waterfowl*, dated May 7, 2007, released by the Trustees for public review and comment.

1.0 BACKGROUND

Pursuant to the Hudson River Natural Resource Damage Assessment (NRDA) Plan (Hudson River Natural Resource Trustees 2002), the Trustees developed a *Draft Study Plan Waterfowl Injury Assessment PCBs in Hudson River Resident Waterfowl* (Draft Waterfowl Injury Study Plan) (Hudson River Natural Resource Trustees 2007), and engaged in public review of that Draft Waterfowl Injury Study Plan.

On May 23, 2007, the Draft Waterfowl Injury Study Plan was released by the Trustees to the public. In that Draft Waterfowl Injury Study Plan, the Trustees asked the public and the party(ies) responsible for the contamination to review the Draft Waterfowl Injury Study Plan and provide feedback on the proposed approach. The Draft Waterfowl Injury Study Plan noted that the Trustees sought public input to help in planning and conducting an assessment that is scientifically valid, cost effective, and that incorporates a broad array of perspectives. Peer review of the Draft Waterfowl Injury Study Plan was conducted concurrently with the public release of the study plan for public review and comment.

Availability of the Draft Waterfowl Injury Study Plan was announced by the Trustees on the U.S. Fish and Wildlife Service (FWS) Division of Environmental Quality website on June 5, 2007, and the FWS New York Field Office website on June 6, 2007. The Draft Waterfowl Injury Study Plan noted that comments were to be submitted by June 25, 2007. In addition, the availability of the Draft Waterfowl Injury Study Plan was published in the Environmental Notice Bulletin, published by the NYS Department of Environmental Conservation, on May 23, 2007. Comments were to be submitted by June 25, 2007.

All comments received on the Draft Waterfowl Injury Study Plan, as part of the peer and public review process, were considered. The Trustees appreciate the input represented by these comments. The Trustees evaluated peer review and public comments and, where warranted, incorporated these comments in the Draft Waterfowl Injury Study Plan to produce the Final Study Plan, Waterfowl Injury Assessment: Determining PCBs concentrations in Hudson River Resident Waterfowl, Public Release Version, dated December 2008 (Final Waterfowl Injury Study Plan) (Hudson River Natural Resource Trustees 2008).

2.0 PUBLIC COMMENTS RECEIVED

One letter from the public was received in response to the Draft Waterfowl Injury Study Plan: a letter from the General Electric Company (GE), the Potentially Responsible Party, dated June 25, 2007. No other comments were received.

Accordingly, the Responsiveness Summary documents comments that were received, that those comments were considered by the Trustees, and how the Trustees addressed those comments.

LETTER FROM GENERAL ELECTRIC, DATED JUNE 25, 2007

General comments:

The Draft Waterfowl Injury Study Plan provides a brief outline of the trustees' proposed approach for the collection and analysis of resident Hudson River waterfowl. However, similar to workplans previously released by the Trustees for public feedback, the Draft Waterfowl Injury Study Plan does not provide the level of detail on the proposed work needed to provide meaningful feedback on the study in its current form. The lack of detail prevents an understanding of whether the proposed work will satisfy the purported goals of the study and is inconsistent with the trustees commitment in the NRDA Plan concerning study plans (page 39) to ensure that study plans will include detailed information, consistent with Department of Interior (DOI) regulations concerning the general content and level of detail of an NRDA Plan or modifications to that plan (43 CFR 11.31), and with the trustees' assurance in the Responsiveness Summary for the NRDA Plan (July 2003, page 2) that study plans that supplement the NRDA Plan will provide the level of specificity needed to satisfy DOI requirements.

The level of specificity in the Final Waterfowl Injury Study Plan is consistent with the DOI regulations at 43 CFR Section 11.31. The Final Waterfowl Injury Study Plan includes detailed descriptions of the experimental design, the species to be studied, the geographic areas of study, and the PCBs to be tested. Standard operating procedures (SOPs) were expanded and include additional information regarding the collection of samples from the field, the processing of samples in the laboratory, the recording and handling of data, the and analysis of tissue samples. The Quality Assurance/Quality Control sections of the Final Waterfowl Injury Study Plan provide additional details that address the four general elements identified by U.S. Environmental Protection Agency quality assurance guidance (project management, data generation and acquisition, assessment and oversight, and data validation and usability), as well as to provide information regarding study documentation and chain of custody procedures.

None of the public comments received on the Draft Waterfowl Injury Study Plan warrants revision of the Study Plan to the extent that a new public notice and comment period is needed. Nor are the revisions and additional detail that are part of the Final Waterfowl Injury Study Plan so significantly different from the Draft Waterfowl Injury Study Plan that a second public review process is justified.

Specific comments:

A. The Study Design Outline indicates that the sampling focus is to collect a representative number of both juvenile and adult mallards resident to the Hudson River. The outline also states that mallards will be collected from five areas of the river. Given the relatively large foraging areas of adult mallards, what methods will be used to verify that the harvested adults are resident to the Hudson River and/or that they are foraging in the areas of collection?

During the period of nesting, mallards are present around the nest site to provide protection of the eggs and/or young. The young that are hatched are flightless until about mid-July and maintain residence on or along the river in the company of adults to continue foraging and growth until about late August or early September. Adult mallards molt their flight feathers during this period, thus, their mobility is restricted to the area in which they may swim or walk. Adults regain flight capacity in August. Sampling juvenile and adult mallards during late July to mid August 2008, as provided for in the Final Waterfowl Injury Study, will ensure that the waterfowl sampled did not migrate in from other water bodies and are truly resident to the Hudson River.

B. The Study Design Outline states that mallards are the most abundant waterfowl species present on the river, thus, they are a surrogate for other waterfowl species. How will the variable life history traits of waterfowl species be considered and accounted for in extrapolating from mallards to other species?

Mallards are the primary species for comparison of PCB residue concentrations with the USFDA tolerance for PCBs in poultry. Since ingestion via foods is the primary pathway for accumulation of PCBs in waterfowl, where similar food habits are present between species (e.g., wood ducks and black ducks) inhabiting the river, then extrapolations should be relatively direct. The PCB concentrations in waterfowl species sampled opportunistically may be an aid to verification of this assertion. Mallards would not be expected to be representative of fish-eating species such as mergansers.

C. The Study Plan Outline states that a small number of other selected resident waterfowl species in their hatch year will be collected opportunistically. What other species are contemplated? It may be helpful to compile and provide for review a list of other resident species considered for opportunistic collection?

Wood ducks, black ducks and mergansers are among the species of waterfowl that may be collected opportunistically.

D. Several of the papers cited in the Study Background specify the area of the body from which fat is sampled (e.g., mesenteric and subcutaneous fat deposits of neck, breast, leg, subalar and ischiopubic regions; Foley and Batcheller 1988). The draft study plan should provide a similar level of detail regarding fat to be analyzed in this proposed study.

Fat will be collected from the area of the breast and associated skin. If necessary, fat deposits in other areas of the body, as indicated by Foley and Batcheller (1988), may be collected.

E. The stated objectives of the proposed study are to determine concentrations of PCBs in waterfowl resident to the Hudson river and to determine whether PCB concentrations exceed existing USFDA tolerance for those residues in poultry. What is the relevance of analyzing selected mallard fat samples for chlorinated dioxins and furans to the stated objectives of the study?

The analysis of chlorinated dioxins and furans has been removed from this study.

F. As noted above, the study objectives focus on PCBs in mallards. However, the New York State Department of Health 2007-2008 Health Advisories: Chemicals in Sportfish and Game indicate that contaminants of concern in waterfowl include mirex, chlordane, and DDT in addition to PCBs. Are there plans to analyze tissue for these additional contaminants and compare to tolerance values?

No. The determination of concentrations of other chemical residues is not relevant to determining whether the USFDA tolerance for PCBs in poultry is exceeded. The health advisories relate to birds that may be taken by hunters during the waterfowl hunting season. The birds that are the subject of this study are not representative of the populations of waterfowl that may be taken by hunters later during the hunting season, although some of these birds may be taken by hunters at that time.

G. Upon request, the trustees verbally provided additional detail concerning the areas to be sampled and the sample sizes under consideration for this study. This information should be provided in the study design for public review and comment. What measures have been taken to ensure that the sample sizes for both adults and juvenile species are adequate to represent the study areas?

The design sample numbers are provided in the final "Quality Assurance Project Plan and General Work Plan, Determining PCBs in Hudson River Resident Waterfowl: 2007-2008 Field Seasons" on pages 11 and 12.

H. Will any additional data, such as anatomical, morphological or histopathological measurements be recorded for collected specimens?

No.

I. As indicated in the cover letter to these comments, the trustees' assured in the Responsiveness Summary for the NRDA Plan that study plans supplementing the NRDA Plan would provide the level of specificity needed to satisfy the DOI requirements. In accordance with this assurance and 43 CFR 11.31, what are the procedures for sharing data, split samples, and results of the analyses proposed in this study when requested?

The Trustees will continue to provide data from Hudson River NRDA studies to General Electric, through Adam Ayers, after the data have been validated. The Trustees will also continue to advise General Electric, through Adam Ayers, of the impending public release of Trustee data reports. With respect to split samples, split sampling is typically done as part of assessment activities performed under a cooperative assessment agreement between the Trustees and a responsible party. The Trustees continue to extend the invitation for a cooperative assessment set forth in the Hudson River NRD assessment plan.

3.0 REFERENCES

Foley, R.E. and G.R. Batchellor. 1988. Organochlorine contamination in common goldeneye wintering on the Niagara River, J. Great Lakes Res. 52: 441-445.

Hudson River Natural Resource Trustees. 2002. Hudson River Natural Resource Damage Assessment Plan. September 2002. U. S. Department of Commerce, Silver Spring, MD.

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