

Hudson River Natural Resource Damage Assessment Case Documents

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A. Preliminary Assessment Phase

[Hudson River Preassessment Screen](#) October 1997)

B. Assessment Planning and Injury Assessment

1. Assessment Planning

[Analytical Quality Assurance Plan, Version 2.0, for the Hudson River NRDA](#) September 2005 (pdf).

[Responsiveness Summary for the Hudson River Natural Resource Damage Assessment Plan](#), July 2003 (pdf)

[Analytical Quality Assurance Plan](#) – July 2002 Version 1.0 (pdf)

[Fact Sheet: Hudson River NRDA Update](#) - Spring 2003 (pdf)

[Public Availability Sessions on NRDA Plan](#), October 2002 (pdf)

[Press Release: TRUSTEES RELEASE PLAN TO ASSESS HUDSON RIVER RESOURCE INJURIES](#), Sept. 17, 2002 (pdf)

[Hudson River Natural Resource Damage Assessment Plan](#), September 2002 (2MB pdf)

[Fact Sheet: Summary of the Damage Assessment Plan](#) September 2002 (pdf)

[Executive Summary Natural Resource Damage Assessment Plan](#) September 2002

[Response to Public Comments on the Draft Scope for the Hudson River Natural Resource Damages Assessment Plan](#). June 1999.

[Hudson River Natural Resource Damage Assessment: Notice of Availability and Request for Comments on a Damage Assessment Scoping Document](#), 63 Fed. Reg. 52,244 (September 30, 1998) (pdf)

[Draft Scope for the Hudson River Natural Resource Damages Assessment Plan](#) September 1998

2. Injury Determination and Quantification

a. Biological Resources

i. Fish

[Vulnerabilities of Atlantic Sturgeon and Shortnose Sturgeon to PCB 126 and TCDD Induced Early Life-Stage Toxicities](#) Poster Presented at Society of Environmental Toxicology and Chemistry meeting, November 13-17, 2011 in Boston, MA.*

[Fact Sheet for Fish Toxicity Pilot Study for the Hudson River](#) (111kb pdf May 2009)

[Sampling and Analysis Plan for Hudson River Fish Health Assessment](#) October 2001 (pdf)

[Assessing Fish Health -- Status Report on the Hudson River NRDA](#) Fall 2001 (pdf)

[Injuries to Hudson River Fisheries Resources Report](#) June 2001
(1.2MB pdf)

ii. Birds

[Effects of an Environmentally Relevant PCB Mixture on Embryonic Heart Development in Gallus domesticus \(Domestic Chicken\)](#) Poster Presented at Society of Environmental Toxicology and Chemistry meeting, November 13-17, 2011 in Boston, MA.*

[PCB concentrations in tree swallow \(Tachycineta bicolor\) eggs collected from the Upper Hudson River varies within a season and between years](#) Poster Presented at Society of Environmental Toxicology and Chemistry meeting, November 13-17, 2011 in Boston, MA.*

[Differential Expression of Liver Regulatory Genes with Embryonic PCB Exposure](#) Poster Presented at Society of Environmental Toxicology and Chemistry meeting, November 13-17, 2011 in Boston, MA.*

[Organochlorine Contaminants in Tree Swallow Nestlings and in Adipose Tissue from Great Blue Heron Nestlings](#) (contains USGS report FY-00-31-05 dated November 30, 2000; corrected June 2011)

[Congener-Specific Analysis of Polychlorinated Biphenyl Residues in Tree Swallow Chicks, Eggs and Other Biota from the Hudson River](#) (contains USGS report FY-97-30-01 dated November 25, 1996; released August 11, 2011)

[Preparation of Individual and Custom PCB Mixture Dosing Solutions for Avian Egg Injection Studies Associated with Injury Determinations under the Hudson River NRDA.](#) (August 2011)

[Hudson River Avian Injury Study Year 4 Final Trustee Study Plan](#)
June 2009 (447kb pdf)

[Responsiveness Summary for the Study Plan for the Waterfowl Injury Assessment: Determining PCB Concentrations in Hudson River Resident Waterfowl.](#) Dec. 2008 (1.7 MB)

[Final Study Plan for Waterfowl Injury Assessment: Determining PCB Concentrations in Hudson River Resident Waterfowl](#) Dec. 2008 (1.7 MB pdf.)

[Hudson River Trustees Release Responsiveness Summary for 2008 Avian Injury Plan](#) June 2008 (pdf)

[Study Plan for Avian Injury Study Year 3 \(2008\)](#) June 2008
(600KB pdf)

[Draft Study Plan for an Avian Injury Study for 2008](#) March 2008
(pdf)

[Fact Sheet for Waterfowl Investigations 2007-2008](#) September 2007 (pdf)

[Responsiveness Summary for Avian Injury Study Amendment for 2007](#) September 2007 (pdf)

[Final Study Plan for Avian Egg Injection Study, Year 2 \(2007\)](#). June 2007 (1.4MB pdf)

[Draft Study Plan for an Avian Injury Study - Amendment for Year 2 \(2007\)](#) February 2007 (pdf)

[Revised Study Plan for Avian Egg Injection Study](#). January 31, 2007 (2.5MB pdf)

[Draft Study Plan for Waterfowl Injury Assessment - PCBs in Hudson River Resident Waterfowl](#) May 2007 (pdf)

[Design and Preparation of a Custom 58-Congener PCB Mixture Dosing Solution for Avian Egg Injection Studies](#) December 2006 (2.2MB pdf)

Fact Sheet -[Avian Investigations for the Hudson River NRDA](#) December 2006 (pdf)

[Responsiveness Summary for the Avian Egg Injection Study Plan](#) June 2006 (pdf)

[Final Study Plan for an Avian Egg Injection Study](#) May 2006 (2MB pdf)

[Modification to Study Plan for Avian Investigations for the Hudson River - USGS Study Plan Amendment for 2006](#) May 2006 (pdf)

[Draft Study Plan for an Avian Egg Injection Study](#) February 2006 (900KB pdf)

[Revised Final Avian Egg Exposure Data Report](#) June 2005 (2.1MB pdf)

[Modification to Study Plan for Avian Investigations for the Hudson River - USGS Study Plan Amendment for 2005](#) May 2005 (pdf)

[Data Report for the Collection of Eggs from Eastern Screech Owl Associated with the Hudson River from Hudson Falls to Schodack Island, New York](#) April 2005 (800KB pdf)

[Responsiveness Summary for the Study Plan for Year 2004 Avian Investigations for the Hudson River](#) April 2005 (pdf)

[Work Summary and Data Report for the Collection of Eggs from American Peregrine Falcon, Hudson River, New York](#) December 2004 (pdf)

[Final Study Plan for Year 2004 Avian Investigations for the Hudson River](#) June 2004 (3MB pdf).

[Fact Sheet: Avian Investigation for the Year 2004](#) Spring 2004 (pdf)

[Draft Study Plan for Year 2004 Avian Investigations for the Hudson River Released for Public Review and Comment](#) March 2004 (pdf)

Egg PCB Contamination of Various Avian Feeding Guilds from the Upper Hudson River Valley (Results of the Trustees' Spring-Summer 2002 collection of eggs from 11 species of Hudson River birds). [Abstract](#) and [Presentation](#) November 2003

[Fact Sheet: Preliminary Investigations of Bird Injuries](#) Spring 2002 (pdf)

[FWS Report PCB contamination of Tree Swallows](#) March 1997 (7.13MB pdf)

[Barton et al. 2012. EROD activity in wild and laboratory birds with embryonic exposure to environmentally relevant PCB mixtures as an assessment of biomarkers of exposure. Abstract. Poster. SETAC 2012.](#) (608KB pdf)

[Carro et al. 2012. Effects of Embryonic Exposure to PCBs on heart development in avian laboratory species. Abstract. Presentation. SETAC 2012.](#) (3.39MB pdf)

[Ottinger et al. 2012. Comparing Effects of Complex Mixtures versus Single PCBs: Functional Outcomes of Exposure in Field and Lab Studies. Abstract. Presentation. SETAC 2012.](#) (1.22MB pdf)

iii. Mammals

[Draft Study Plan](#) for Investigation of Mink Abundance and Density Relative to Polychlorinated Biphenyl Contamination within the Hudson River Drainage. (June 2012)

[Fact Sheet](#) for Investigation of Mink Abundance and Density Relative to Polychlorinated Biphenyl Contamination within the Hudson River Drainage. (June 2012)

[Dietary Exposure of Mink \(Mustela vison\) to Fish from the Upper Hudson River, New York, USA: Effects on Reproduction, Offspring Growth and Mortality](#) Poster Presented at Society of Environmental Toxicology and Chemistry meeting, November 13-17 in Boston, MA.*

[Dietary Exposure of Mink \(Mustela vison\) to Fish from the Upper Hudson River, New York, USA: Organ Mass and Pathology](#) Poster Presented at Society of Environmental Toxicology and Chemistry meeting, November 13-17 in Boston, MA.*

[Fact Sheet: Mink Field Study](#) November 2010 (100kb pdf)

[Draft Study Plan for Public Review and Comment for an Investigation.... Investigation of Mink Occupancy Relative to Polychlorinated Biphenyl Contamination within the Hudson River Drainage](#) August 2010

[Fact Sheet on Preliminary Investigation of PCBs in Hudson River Bats](#) October 2007

[Work Summary and Data Report for Preliminary Investigation of PCBs in Hudson River Bats](#) September 2007 (550KB pdf)

[Responsiveness Summary for the Mink Injury Study Plan](#) December 2006 (pdf)

[Fact Sheet on Mink Investigations for the Hudson River NRDA](#) Summer 2006 (600KB pdf)

[Final Study Plan for Mink Injury Investigations for the Hudson River](#) August 2006 (2.5MB pdf)

[Draft Study Plan for Mink Injury Investigations for the Hudson River](#) June 2006 (3MB pdf)

[Progress Report on Hudson River Mammals: Polychlorinated Biphenyl \(PCB\) Levels in Mink, Otter, and Muskrat and Trapping Results for Mink, the Upper Hudson River Drainage, 1998-2000](#) March 2001 (500KB pdf)

[Factors Affecting the Distribution of Mink from Contaminated Habitats, Report of Research Activity 1993-1994](#), prepared by the New York State Department of Environmental Conservation.

iv. Reptiles and Amphibians

[Fact Sheet for 2004 Amphibian Preliminary Investigation](#) June 2008 (pdf)

[Data Report for 2004 Amphibian Preliminary Investigation](#) January 2008 (500KB pdf)

[Fact Sheet for 2003 Amphibian Preliminary Investigation](#) November 2007 (pdf)

[Data Report for 2003 Amphibian Preliminary Investigation](#) May 2007 (1.0MB pdf)

[Data Report for the Collection of Eggs from the Common Snapping Turtle from the Hudson River, New York](#) March 2005 (740KB pdf) and associated [Database User Manual](#) July 2004 (pdf).

[Data Report for Screening for Organochlorine and Metal Contaminant Levels in Hudson River, New York Bullfrogs and Snapping Turtles](#) February 2005 (6.5MB pdf), and associated [Quality Assurance Project Plan](#) August 1998(1.6MB pdf)

[The Accumulation of Sedimentary PCBs in Bullfrog \(*Rana catesbeiana*\) Tadpoles From the Upper Hudson River](#) November 2004 (pdf)

[Fact Sheet: Preliminary Investigation of Frogs and Sediments](#) Spring 2004 (pdf)

[PCB Contamination of Common Snapping Turtle Eggs from the Hudson River-Poster](#) (pdf) [Abstract](#) November 2003

[Preliminary Investigation of Snapping Turtles](#) Summer 2002 (pdf)

b. Surface Water

[Aquatic Insect Data Report](#) Sept 2009 (pdf)

[Injury Determination Report for Hudson River Surface Water Resources](#) Dec. 2008 (1 MB pdf)

[Fact Sheet for Sediment Toxicity Pilot Study for the Hudson River](#) Sept. 2008 (pdf)

[Injuries to Hudson River Surface Water Resources Resulting in the Loss of Navigational Services](#) July 2006

c. Groundwater

d. Geologic Resources

[Data report for the Collection of Small Mammals and American Woodcock from the Floodplain of the Hudson River, New York in Year 2001, Analysis of Floodplain Earthworms from the Year 2000, and Re-Analysis of Select Floodplain Soils and Small Mammals from the Year 2000](#) January 2010 (9.87MB pdf)

[Hudson River NRDA Floodplain Data Summary](#) June 2004 (pdf)

[Floodplain Soil and Biota Screening Sampling Report](#) February 2002 (1.7MB pdf)

[PCBs in Floodplain Soils and Shrews of the Hudson River - a Presentation by the Trustees](#) November 2001 (pdf)

e. Air

C. Damage Determination and Restoration

[Restoration Proposal Form](#) (pdf) [Restoration Proposal Form](#) (docx) February 2012

[Addressing PCB-Related Losses Along the Hudson River Through A Natural Resource Damage Claim](#) October 2004 (pdf)

a. Unremediated PCBs

[Posters: “Unremediated PCBs in the Hudson River: Implications for Recovery and Restoration” and “Habitat Replacement and Reconstruction and the Implications for Restoration”](#) Analyses and recommendations of the Federal Trustees to General Electric on improvements to the Phase 2 Remedial Design

pre-meeting presentation by the Federal Trustees to the Hudson River PCBs Superfund Site Community Advisory Group. June 30, 2011(3.2 MB pdf)

[Poster: “Hudson River Remedy Part I: Unremediated PCBs and the Implications for Restoration”](#) This poster was presented by the Hudson River Natural Resource Federal Trustees -- NOAA and U.S. DOI/FWS -- at the Hudson-Delaware Chapter Society of Environmental Toxicology meeting, Wilmington, Delaware, April 27-28, 2011(8.5MB)

[Poster: Hudson River Remedy Part II: Habitat Remediation and Reconstruction and the Implications for Restoration”](#) This poster was presented by the Hudson River Natural Resource Federal Trustees -- NOAA and U.S. DOI/FWS -- at the Hudson-Delaware Chapter Society of Environmental Toxicology meeting, Wilmington, Delaware, April 27-28, 2011(2.2MB)

[Poster: Hudson River Remedy: Unremediated PCBs and the Implications for Restoration.](#) This poster was presented by the Hudson River Natural Resource Federal Trustees -- NOAA and U.S. DOI/FWS -- at Battelle's Sixth International Conference on Remediation of Contaminated Sediments in New Orleans, Louisiana, February 7-10, 2011. (11.7MB)

D. Public Participation

[Public Participation Plan - Phase II](#) April 2002 (pdf)

[Hudson River Restoration: Role of Natural Resource Trustees](#) Spring 2002

[Summer 2000 Status Report on the Hudson River NRDA](#) Summer 2000 (pdf)

[Public Participation Plan - Phase I](#) July 1998 (pdf)

E. Coordination with GE and EPA

[Federal Trustee Letter to General Electric on Phase 2 Design for Hudson River Dredging.](#) The Federal Natural Resource Trustees urge General Electric to maximize the benefits of the habitat reconstruction component of the remedial design, incorporate primary restoration into the remedy, and strengthen the adaptive management and monitoring program to increase the likelihood of successful recovery. June 21, 2011

[Press release from the Hudson River Natural Resource Trustees -- DOI, NOAA, & NYS - "Trustees for the Hudson River dredging project today announced their support for the Environmental Protection Agency's plans to remove PCBs from the river."](#) May 7, 2010

[Federal Trustee Comments presented by Bob Foley \(DOI\) on May 4, 2010 and on May 5, 2010 at the Hudson River PCBs Superfund Site Phase 1 Peer Review Panel meeting.](#) May 2010 (25KB pdf)

[Comments by the Hudson River Natural Resource Trustees to EPA on the Phase 1 Evaluation Reports for consideration by the Peer Review Panel](#) Apr 2010 (51KB pdf)

- a. Comments by the Hudson River Natural Resource Trustees at the Hudson River Phase 1 Dredging Peer Review Panel on February 17-18, 2010 in Saratoga Springs, New York.

[Comments by the Hudson River Trustees on the Engineering Performance Standard to the Phase 1 Peer Review Panel; presented 2/17/10 by Lisa Rosman, NOAA Office of Response and Restoration, Assessment and Restoration Division](#) February 2010 (34kb pdf)

[Comments by the Hudson River Trustees on the Productivity Standard to the Phase 1 Peer Review Panel; presented 2/18/10 by Tom Brosnan, NOAA Office of Response and Restoration, Assessment and Restoration Division](#) February 2010 (27kb pdf)

[Comments by the Hudson River Trustees on Evaluating Backfill as a Contributor to Exceedance of the Resuspension Standard; presented by Bob Foley, Hudson River Case Manager, US Department of the Interior](#) February 2010 (33kb pdf)

[Comments by Kevin Farrar, NYSDEC](#) February 2010 (14kb pdf)

[Comments by Wayne Richter, NYSDEC Division of Fish, Wildlife and Marine Resources](#) February 2010 (15kb pdf)

* Injury determination work on birds, mink, and fish supported by the Hudson River Natural Resource Trustees was presented by the Trustees' Principal Investigators. Funding or other support for these projects was provided by the Hudson River Natural Resource Trustees as part of the ongoing Hudson River Natural Resource Damage Assessment. Please note that the conclusions and opinions presented in these presentations are those of the authors, they do not represent the official position of any of the funding agencies, the Hudson River Trustees or the United States.