PUBLIC PARTICIPATION PLAN
PHASE II: THE HUDSON RIVER NRDA PLAN

HUDSON RIVER NATURAL RESOURCE DAMAGE ASSESSMENT

HUDSON RIVER NATURAL RESOURCE TRUSTEES

STATE OF NEW YORK

U.S. DEPARTMENT OF COMMERCE

U.S. DEPARTMENT OF THE INTERIOR

FINAL DRAFT
PUBLIC RELEASE VERSION

APRIL 2002

Available from:
U.S. Department of Commerce
National Oceanic and Atmospheric Administration
Hudson River NRDA, Lead Administrative Trustee
Damage Assessment Center, N/ORR31
1305 East-West Highway, Rm 10219
Silver Spring, MD 20910-3281

FINAL
HUDSON RIVER NATURAL RESOURCE DAMAGE ASSESSMENT
PUBLIC PARTICIPATION PLAN
PHASE II: *THE HUDSON RIVER NRDA PLAN*

PREPARED BY HUDSON RIVER NATURAL RESOURCE TRUSTEES

APRIL 2002

PHASE II: *THE HUDSON RIVER NRDA PLAN*

SECTION I. PURPOSE

The purpose of this plan is to describe the public participation activities associated with the Hudson River Natural Resource Damage Assessment (NRDA) process. One goal of public participation activities is to increase public understanding of the Hudson River NRDA process. Another goal is to solicit comments and feedback from the interested public on that process. The Trustees (the New York State Department of Environmental Conservation [NYSDEC], the National Oceanic and Atmospheric Administration [NOAA], and the U.S. Department of the Interior [DOI]) intend to accomplish these goals by communicating with the public at each major step of the process, and to adapt our approach as necessary based in part on public comment.

The first major step of the Hudson NRDA process was scoping the assessment plan. The public participation activities associated with this step were discussed in the Phase I Public Participation Plan. The second main phase was the restoration program outreach process, in which the Trustees actively sought, and received, input from the interested public into potential restoration projects to restore injured natural resources. This process is ongoing, as the Trustees continue to seek ideas for additional restoration projects. This document describes the public participation process for the third major step of the NRDA, the release of the *Hudson River Natural Resource Damage Assessment Plan*. It also provides an overview of all outreach activities accomplished to date (see Appendix A). Subsequent phases of the NRDA process will be addressed in future public participation plans.

SECTION II. NOTICE PERIODS, DOCUMENT AVAILABILITY AND PUBLIC MEETINGS

A. NOTICE PERIODS

Consistent with 43 CFR § 11.32, a 45-day notice period will be offered following the release of the *Hudson River NRDA Plan*. Similarly, separate 45-day review periods will be offered if significant modifications are made to the *Hudson River NRDA Plan*. Although the regulations require a 30-day review period, we have extended it to 45 to accommodate the public's desire for more review time. The public meetings (see Section D. below) will be scheduled approximately half way through review period(s).

B. NOTICE OF REVIEW PERIOD

Notice of opportunities for review of the *Hudson River NRDA Plan* will be provided both formally and informally. Formal notice will consist of publication in the *Federal Register* and the New York State *Environmental Notice Bulletin (ENB)*. Informal notice will be given on all Trustee websites, through federal and state press releases, with paid notices in local newspapers in the Hudson River valley, and by direct mailings. Mailing lists will be developed from existing federal and state lists.

C. DOCUMENT AVAILABILITY

Documents will be available directly from designated Trustee contacts, on Trustee websites and at information repositories, as listed in Appendix B. When it is available, the Administrative Record will also be available at the locations listed in Appendix B.

Thirty (30) copies of the NRDA Plan will be mailed to:

The New York State Library
Document Distribution Center
State Education Building, Room 30
Washington Avenue
Albany, New York 12234

These copies of the *NRDA Plan* will be available for review in the library, not for borrowing.

D. Public Meetings

A series of public meetings will be held in order to:

1) inform the concerned public about NRDA in general;

2) inform the concerned public about the relationship of NRDA activities to other remedial (U.S. Environmental Protection Agency [EPA] and NYSDEC) efforts;

3) inform the concerned public about the status of NRDA efforts planned for Hudson River;

4) describe to the concerned public the purpose of a NRDA Plan; and

5) take comments (both at meetings or subsequently via mail, email or fax) from the concerned public on the *Hudson River NRDA Plan*.

Based on our experience and the suggestions we received during the *Draft Scope* meetings, public meetings will be planned for each of four (4) locations throughout the Hudson Valley. Both afternoon and evening sessions will be held, except for the New York City presentation, where we hold only an afternoon session. In order to cover effectively the geographic range of this NRDA, meetings will be convened as follows:

City	County	Facility
Fort Edward	Washington	Washington County Offices
Albany	Albany	Public Library
Poughkeepsie	Dutchess	Central Hudson Meeting Room
New York City	New York	New School

The Trustees will plan meetings with other major interest groups and with Environmental Management Councils in riverside counties, and ask to attend some of their regularly scheduled monthly meetings. We will also invite local, state and federal legislators and their staffs to pre-meetings before each afternoon public meeting.

The Trustees plan to contact major environmental groups and request to be permitted to conduct workshops at previously scheduled conferences or meetings, and to contact reporters and editorial boards to brief them on the NRDA process. In addition, the Trustees will write an article, with graphics, about the Hudson River NRDA process and mail it to environmental organizations and waterfront organizations for them to reprint in their newsletters.

SECTION III. DOCUMENTS TO SUPPORT PUBLIC PARTICIPATION

In addition to the *Hudson River NRDA Plan*, the following documents will be prepared to fully implement the public participation process:

1) *ENB Notice*: See *Appendix D, Notice of Review Period;* this will be revised as needed.

2) *Federal Register Notice*: See *Appendix D, Notice of Review Period;* this will be revised as needed.

3) *Constituent Letter and Factsheet Summarizing the NRDA Plan*: This announcement of public meetings and the comment periods, and the factsheet summarizing the NRDA Plan will be mailed to the 1400+ addresses on our mailing lists and will also be "published" on the Trustee websites. A draft of this document is attached as *Appendix E, Draft Constituent Letter;* this will be revised as needed.

SECTION IV. USE OF INPUT FROM PUBLIC PARTICIPATION EFFORTS

A. PUBLIC INPUT

The trustees will maintain a record of all written and oral comments received during the formal comment period, which can be delivered in person, via conventional mail, or electronically (fax or e-mail). Individual contacts for the Trustee agencies will be designated as the recipients of all comments. All comments concerning the NRDA Plan received from potentially responsible parties and any other interested members of the public, together with responses to those comments, shall be included as part of the Report of Assessment.

B. RESPONSIVENESS SUMMARY

A Responsiveness Summary will be prepared which describes the comments on the *NRDA Plan*. The Summary will be available through all of the outlets described previously in this document.

APPENDIX A

CHRONOLOGICAL OVERVIEW OF TRUSTEE PUBLIC PARTICIPATION ACTIVITIES

Updated throught September 2003

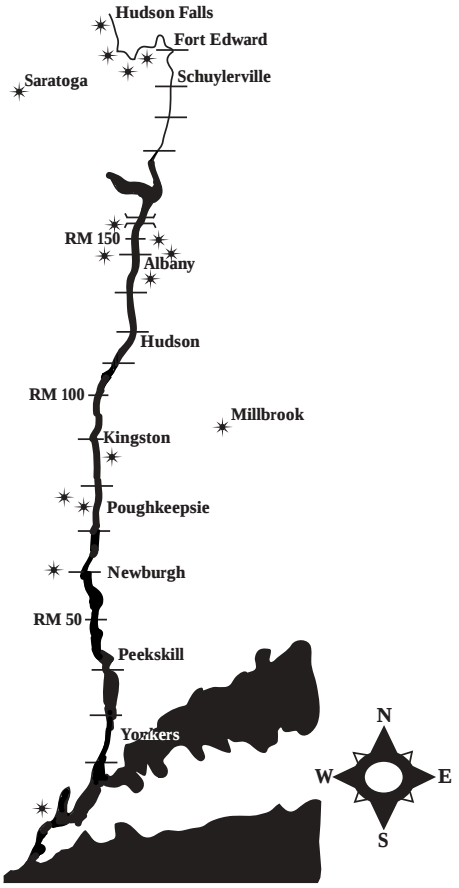
- 08/1998: The Trustees held a public participation focus group to identify how best to involve the public throughout the Hudson River NRDA process.
- 09/1998: The Trustees released the Draft Scoping Document, mailed a letter about the Draft Scoping Document to 1200 New York residents, and held a 2-month public comment period.
- 10-11/1998: The Trustees held a series of public meetings to discuss the Draft Scoping Document.
- 06/1999: The Trustees mailed a letter to 1200 New York residents responding to comments from public meetings about the Draft Scoping Document.
- 01/2000: The Trustees mailed a letter to 1200 New York residents, soliciting proposed restoration projects from the general public; the letter and form were also placed on Trustee websites.
- 2000: The Trustees developed a basic Hudson NRDA factsheet and presentation materials for distribution at Hudson-related meetings and conferences.
- 2000: Trustees met with the following interest groups: Saratoga County Environmental Management Council, Columbia County Environmental Management Council, Dutchess County Environmental Management Council, Hudson River Estuary Management Advisory Committee, The Nature Conservancy, National Audubon Society, a group of ten regional Soil and Water Conservation Districts, and Friends of the Hudson (a coalition of representatives from local government and Scenic Hudson, Hudson River Foundation, Hudson River Environmental Management Council, Sierra Club, Hudson River Foundation, Arbor Hill environmental Justice Corp., and Environmental Advocates).
- 2000: The Trustees published a display advertisement (public service announcement or PSA) in nine newspapers, one boating magazine, and environmental group newsletters.
- 09/2000: The Trustees maintained an informational booth about the Hudson NRDA at the New York Waterfront Rediscovery Conference (attended by 400 organizations and municipalities along the Hudson).
- 10/2000: Arbor Hill Environmental Justice Organization published Trustee Public Service Announcement (PSA) in its newsletter (circulation 3,000).
- 10/2000: EPA held public meetings at which Trustee factsheets were distributed.
- Fall 2000: Citizens' Environmental Coalition published Trustee PSA in Fall issue (circulation 10,000).
- Winter 2000: The Trustees delivered materials to EPA's outreach coordinator, who distributed them to the following organizations:

  Saratoga Chamber of Commerce; Northern Dutchess Alliance (7-town coalition); Collar City Charters, Troy; Rensselaer City Chamber of Commerce; Peekskill Chamber of Commerce; Orange County Chamber of Commerce; Mallory Line, Troy; Hudson Highlands Cruises; Senator Charles Schumer (member for the Hudson River Coalition).
- 2000: League of Women Voters held a meeting on the dredging issue with Scenic Hudson and GE; League distributed 100 copies of the Trustee factsheets.
- Winter 2000: Mailed 300 copies of the Trustee factsheets to Hudson River Sloop Clearwater for distribution at future events in Winter 2000.
- 12/2000: EPA held public meetings; Tom Brosnan attended and distributed Trustee factsheets.

- 01/2001: The Trustees delivered several hundred factsheets to Arbor Hill Environmental Justice for a meeting on PCB issues; the group mailed 100 copies to interested parties.
- 2002: The Trustees met with the following orgnaizations; Scenic Hudson, Clearwater, Environmental Advocates, Riverkeeper, and Hudson River Sloop, CEASE, Hudson River Cares, New York Farm Bureau, Sierra Club, Arbor Hill Environmental Justice Corp.,
- 2002/03: The Trustees briefed staff for New York congressional representatives in Washington, DC.
- 03/2002: The Trustees mailed a Fish Injury Assessment Factsheet to 1200 New York residents and posted it on the Trustees' websites.
- 9/2002: The Trustees mailed a NRDA Plan factsheet to 1200 New York residents.
- 2003: The Trustees met with the following organizations: Natural Resources Defense Council, Clean Ocean Action, Scenic Hudson, Riverkeeper, Federated Conservationists of Westchester, West Harlem Environmental Action, Croton-On-Hudson Mayor, Hudson River Foundation, and NY/NJ Baykeeper.
- 06/2003: The Trustees provided NRDA handouts for informational booth at the Clearwater Festival.
- 07/2003: The Trustees mailed factsheet about the responsiveness summary for the NRDA Plan to 1200 residents.
- 09/2003: The Trustees established listserv to facilitate information dissemination about the damage assessment.

MAP OF TRUSTEE MEETINGS WITH INTEREST GROUPS

Trustee Meetings With Interest Groups
1998 - 2003



* updated through 7/2003

APPENDIX B

INFORMATION REPOSITORIES

Washington County Clerk's Office
Washington County Office Building
Upper Broadway
Fort Edward, NY 12828

Crandall Library
City Park
Glens Falls, NY 12801

Saratoga Springs Public Library**
49 Henry Street
Saratoga Springs, NY 12866

Saratoga County EMC**
50 West High Street
Ballston Spa, NY 12020

Troy Public Library
100 Second Street
Troy, NY 12180

Rensselaer Polytechnic Institute
R.G. Folsom Library
Troy, NY 12180-3590
University Library

New York State Library
CEC Empire State Plaza
Albany, NY 12230

New York State Department of
Environmental Conservation
Division of Fish, Wildlife and Marine Resources
625 Broadway
Albany, New York 12233

Albany Public Library
161 Washington Avenue
Albany, NY 12210

SUNY/Albany
1400 Washington Avenue
Albany, NY 12222
(Government Documents Section)

Bethlehem Public Library
451 Delaware Avenue
Delmar, NY 12054

Catskill Public Library
1 Franklin Street
Catskill, NY 12414

Athens Public Library
80 Second Avenue
Athens, NY 12015

Sojourner Truth Library**
SUNY/ New Paltz
Government Documents Section
New Paltz, NY 12561

Cornell Cooperative Extension
New York Sea Grant Institute
74 John Street
Kingston, NY 12401

Marist College
290 North Road
Poughkeepsie, NY 12601

Adriance Memorial Library
93 Market Street
Poughkeepsie, NY 12601

Croton Public Library
171 Cleveland Avenue
Croton, NY 10520

White Plains Public Library
100 Martine Avenue
White Plains, NY 10601

Locations marked with ** have CD-ROM availability.

APPENDIX C

INFORMATIONAL DOCUMENT (Q&A FACT SHEET)

Frequently Asked Questions

1. WHAT IS A NATURAL RESOURCE DAMAGE ASSESSMENT?

Several federal statutes, as well as some state law, authorize federal and state officials to act on behalf of the public to restore natural resources affected by releases of oil and hazardous materials. Under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), parties responsible for contaminating the environment and causing injury to natural resources are also liable for natural resource damages (or compensation), which are to be used to restore the injured resources.

The NRDA process under CERCLA involves determining the nature and extent of injury to the public's natural resources in order to restore them to the state they would have been in but for the release of hazardous materials. The NRDA process seeks to ensure that the public is compensated for the losses they suffer as a result of the contamination.

Monies recovered as a result of an NRDA must be used to restore either the injured natural resources themselves or the services provided by the natural resources. For example, if recreational fishing is injured, recovered damages can be used both to restore the fishery itself and to restore the recreational use of the fish. Only designated state and federal trustees are authorized to pursue damages for injury to natural resources from hazardous material releases.

2. WHO ARE THE NATURAL RESOURCE TRUSTEES FOR THE HUDSON RIVER?

The Hudson River Trustees are NYSDEC, NOAA, and the Fish and Wildlife Service (F&WS). In September 1997, a Trustee Council was formed to develop and coordinate state and federal damage assessment activities and to plan for the restoration of the River's resources.

3. WHAT HAVE THE TRUSTEES DONE SO FAR?

In October of 1997, the Trustees released the Preassessment Screen (PAS) for the Hudson River, New York. The PAS is an overview of readily available information that describes major contaminants in and potential injuries to the River and its environment. The review ensures that there is a reasonable probability of making a successful claim for damages before money is expended to plan or conduct a more elaborate NRDA. The PAS indicates that the Trustees have determined that it is appropriate to undertake a NRDA of the Hudson River.

Following issuance of the PAS, the Trustees determined that development of a Damage Assessment Plan was appropriate. The Trustees then issued, for public review and comment, a "Draft Scope for the Hudson River Natural Resource Damage Assessment Plan." That scoping document contained a preliminary outline of the potential contents of a Damage Assessment Plan for the Hudson River. Subsequently, the Trustees solicited, and received, public input on potential

restoration plans. And they have now distributed the Natural Resource Damages Assessment Plan for the Hudson River. The Damage Assessment Plan describes studies the Trustees will undertake to assess natural resource injuries and to evaluate and support appropriate restoration options for the Hudson River environment.

4. What will the Trustees be Doing Next?

The Trustees will now continue to carry out the assessment, as set forth in the *NRDA Plan*. If new information warrants, they will modify the Plan, and the manner in which the assessment is carried out, as appropriate. They will continue to accept proposed restoration projects from the public.

5. How Can I Get Involved?

The Trustees will actively solicit public input throughout the damage assessment and restoration process. Notices on the availability of information and the opportunity for public input will be posted on the Trustees' web page and through other media. Those who would like to be added to the Hudson River Damage Assessment mailing list should notify the contacts listed in the *NRDA Plan*.

Public meetings to discuss the *Hudson River NRDA Plan* have been scheduled for the spring of 2002. They are described in the Public Participation Plan, Phase 2, to which this is attached, and will be publicly noticed when scheduled.

6. Why is the Public Being Given an Opportunity to Review the NRDA Plan?

The Trustees would like to give all concerned parties ample opportunity for participation in the NRDA. Federal NRDA regulations describe a need for public participation and mandate a minimum level (see 43 CFR Part 11, 11.32 and 11.90). The Trustees want to capitalize on the considerable knowledge of the responsible parties and the interested public and also want to consider public perspectives on the relative importance of injuries and services.

7. How and Where can I get Additional Information About the Hudson River Natural Resource Damage Assessment and Restoration Process?

Additional information about the Hudson River site and the damage assessment process is available from the contacts listed in the *NRDA Plan* or from:

NYSDEC's web page: www.dec.state.ny.us/website/dfwmr/habitat/nrd/index.htm

NOAA's web page: www.darp.noaa.gov/neregion/hudsonr.htm

DOI's web page: www.contaminants.fws.gov/restorationplans/hudsonriver.cfm

8. How do the Trustees' Restoration Planning Efforts Relate to EPA's Remedial Activities?

Remediation is the cleanup activities at hazardous waste sites designed to reduce or eliminate significant risks to human health, welfare or the environment posed by contamination of the environment. Restoration in the context of NRDA is actions to restore, replace or acquire the equivalent of natural resources, and the services they provide, that are lost or harmed by such contamination. The period covered is from the release of the hazardous substances to the time all affected resources are returned to the condition they would have been in but for the release of the hazardous substances. Remediation reduces environmental risks but does not necessarily restore the injured natural resources, or compensate the public for lost uses of the injured natural resources.

The EPA has issued a Record of Decision (ROD) for the upper portion of the Hudson River PCB (polychlorinated biphenyl) Superfund site. The Hudson River PCB Superfund site includes approximately 200 miles of the Hudson River between Hudson Falls and the Battery in New York City. The ROD sets forth the general plan for the remediation of the PCB-contaminated sediments in the Upper Hudson River.

The Trustees are coordinating their restoration efforts closely with EPA's remedial efforts. The *Hudson River NRDA Plan* cannot be fully implemented until remediation is complete, because the efficacy of the remediation will have a direct effect on the extent of future injuries; some of the studies can be performed in the near future, others will have to wait until the success of remedial efforts can be measured.

Note: For additional information about EPA's Remedial efforts, see EPA's Hudson River PCB website: http://www.epa.gov/hudson/.

9. Why is the Process of Cleaning Up the Hudson Taking so Long?

The Hudson River is a large and very complex system that has been heavily contaminated with PCBs, and a detailed assessment of the contamination in the River required extensive scientific study. EPA's Reassessment, which began in 1990, was performed in three phases. Phase 1 included the collection of existing data on the Hudson River from a wide variety of sources and the replacement of those data into a single database. Analysis of those data uncovered significant data gaps to be filled by additional data collected in Phase 2 of the Reassessment. Phase 2 consisted of field sampling, computer modeling, and human and ecological risk assessment designed to fill many of these data gaps and provide additional information about the potential impacts of PCBs on the Hudson River. Phase 3, in which EPA evaluated possible remedial alternatives for the site, resulted in the selection of the preferred remedial alternative set out in the ROD.

10. Will the Trustees Conduct Additional PCB Removal Operations if EPA's Remedy, as Implemented, does not Result in the Restoration of Injured Resources?

The *Final NRDA Plan* will include an evaluation of possible restoration options for the River. EPA's ROD does not specifically address contamination on the floodplains, or in the Lower River, although the ROD indicates EPA will consider the floodplain contamination during the design phase of the remedy. The scope and level of success of EPA's remedy will affect the Trustees' restoration decisions because a more extensive remedy will be likely to restore natural resources more quickly than a less comprehensive cleanup. As with all other aspects of the NRDA process, the Trustees will seek public input prior to implementing any restoration plans.

APPENDIX D

NOTICE OF REVIEW PERIOD

A. FORMAL PUBLICATION

1) Environmental Notice Bulletin - Text must be submitted by close of business Wednesday for the following Wednesday's publication. Text can be e-mailed to: enb@envbulletin.com.

2) Federal Register - Text must be submitted 21 days in advance of the publication date. Text can be emailed to: Fred Caslick at fred_caslick@fws.gov.

B. INFORMAL NOTICE

1) NYSDEC website - Text must be converted into html and then submitted 5 days in advance to Mary Kadlacek and Bill Daigle.

2) Press Releases:

	Contact(s)	Lead time
NYSDEC	Peter Constantakes	1 week
NOAA	Lisa Pelstring	1 week
DOI	Fred Caslick	1 week

Direct mail:

Trustee mailing list, managed by Larry Gumaer of NYSDEC

APPENDIX E

"OFFICIAL" ANNOUNCEMENT

"Dear Concerned Citizen:

The Hudson River Natural Resource Trustee Council (the Council) is planning to conduct an assessment of natural resource damages (a "NRDA") of resources in the Hudson River ecosystem that have been injured by exposure to polychlorinated biphenyls. The Council is composed of the New York State Department of Environmental Conservation (NYSDEC), the National Oceanic and Atmospheric Administration (NOAA), and the United States Fish and Wildlife Service (F&WS). In September 1997, the Council was formed to develop and coordinate state and federal damage assessment activities and to plan for the restoration of the River's resources. As the NRDA process continues, the Council seeks to keep the concerned public informed. Specifically, we are currently publicizing the Natural Resource Damage Assessment (NRDA) Plan. Comments will be received until _____, 2002. Sources for the NRDA Plan and related documents, general information about the Hudson River NRDA process, the schedule for the public meetings and contact persons are detailed in the enclosed literature.

We look forward to your comments on the Natural Resource Damage Assessment Plan for the Hudson River.

Sincerely,

The Hudson River Natural Resource
Trustee Council"

2002

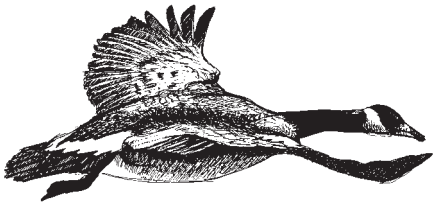
HUDSON RIVER NATURAL RESOURCE DAMAGE ASSESSMENT

SUMMARY OF THE DAMAGE ASSESSMENT PLAN

Polychlorinated biphenyls (PCBs) have polluted the Hudson River environment since the late 1940s. Two General Electric manufacturing facilities located in Fort Edward and Hudson Falls, New York, discharged up to 1.3 million pounds of PCBs into the river.

PCBs are a major concern because they last in the environment for many decades, low concentrations pose health hazards to humans, birds, fish, and mammals, and they accumulate in living creatures over time. The Hudson River is a Federal Superfund Site, and the U.S. Environmental Protection Agency has issued a Record of Decision calling for the removal of an estimated 150,000 pounds of PCBs from selected areas along a 40-mile stretch of the river between Hudson Falls and the Federal Dam at Troy, NY.

One State agency and two Federal agencies share responsibility for restoring the Hudson River's natural resources injured by PCBs. They are the New York State Department of Environmental Conservation, the National Oceanic and Atmospheric Administration, and the U.S. Department of the Interior. Collectively, these agencies are called "Trustees" and act on the public's behalf to assess and restore injured natural resources. This effort is called a Natural Resource Damage Assessment (NRDA).



CLEANUP AND RESTORATION

NRDA is different from EPA Superfund cleanup. EPA focuses on cleaning up or containing the PCBs to reduce present and future risks to human health and the environment. In a Natural Resource Damage Assessment, Trustees assess the past, current, and future PCB injuries to the resources. Trustees identify and plan restoration actions to address these injuries and the public's lost use of the resources.

NATURAL RESOURCES EXPOSED TO PCBS

The Trustees have determined that the following natural resources have been exposed to PCB contamination:

- Living resources, including fish, birds, mammals, amphibians, reptiles, invertebrates (insects, crabs), and plants,
- Surface water resources, including river sediments,
- Groundwater resources,
- Geologic resources, including floodplain soils, and
- Air resources.

THE NATURAL RESOURCE DAMAGE ASSESSMENT PLAN

As part of Hudson River damage assessment, the Trustees have completed a Damage Assessment Plan that provides information on the planned, current, or completed Trustee-sponsored studies of natural resources exposed to PCBs. Studies outlined in the Damage Assessment Plan may be considered as one of three types:

1>>> *Injury Determination*

Injury determination studies identify the natural resource injured from PCB exposure, how much of the resource has been injured, and the length of time the resource has been and will be injured.

2>>> *Pathway Determination*

Pathway determination studies document how PCBs move through the environment to the injured resource.

3>>> *Damage Determination and Restoration*

The Trustees analyze information gathered from studies and identify the best methods to restore the injured resources and lost human services provided by these resources.

Natural Resource Damage Assessment Studies

Below is a list of the planned, current, or completed studies being conducted by the Trustees for the Natural Resource Damage Assessment or NRDA.

Injury Determination Studies

Fish Injury Studies

1> *Fish Consumption Advisory*
NRDA regulations under which the Trustees operate define the existence of fish consumption advisories as an injury to the resource. The Hudson River has had advisories in place since 1976. To document this injury the Trustees have evaluated the history, dates, and geographic ranges of the advisories, including relevant species. This study is completed and can be viewed at *www.dec.state.ny.us/website/dfwmr/habitat/nrd/index.htm*

2> *Fish FDA Tolerance* To protect human health, the Food and Drug Administration (FDA) requires that fish containing PCB concentrations in excess of designated levels be removed from commerce. For PCBs, the current tolerance is 2 ppm in edible fish tissue. Fish are injured when PCB concentrations exceed this tolerance level. The Trustees will compare the fish tissue data available from previous New York State studies and other sources with the FDA tolerance to determine the extent of this injury.

3> *Fish Health Survey* To evaluate whether PCBs are affecting the health and viability of fish in the Hudson River, the Trustees are conducting a multi-phase study.

- ***Fish Health Reconnaissance Survey*** In 2001, the Trustees began assessing the prevalence of abnormalities in fish tissue and gross abnormalities to internal organs and external features of fish sampled from the river. The Trustees also collected fish tissue for future chemical analysis that may be carried out if the survey results suggest that fish are exhibiting these injuries.
- ***Effects of PCBs on Early Life Stages of Fish*** The Trustees are considering whether to examine any adverse effects of PCBs on early life stages and development of fish.

Bird Injury Studies

1> *Waterfowl Consumption Advisory*
New York State has issued a statewide advisory recommending limited consumption of wild waterfowl such as ducks and geese due to PCBs and pesticide contamination. The Trustees plan to evaluate what part of the contamination that led to the statewide advisory is attributable to PCBs from the Hudson River.

2> *Waterfowl FDA Tolerance* To protect human health, the FDA requires that poultry containing PCB concentrations in excess of safe levels be removed from commerce. For PCBs, this tolerance is 3 ppm. Waterfowl are injured when PCB concentrations exceed this tolerance level. The Trustees plan to compare available waterfowl tissue data with the FDA tolerance.

3> *Breeding Bird Survey* The Trustees have completed a preliminary investigation of the presence and relative abundance of the bird species found in the Hudson River Valley. This study will help the Trustees determine whether particular bird species are at risk from PCB contamination and whether future studies should be conducted.

4> *Bird Egg Survey* There is limited information on exposure of Hudson River bird species to PCBs, especially at sensitive early life stages. The Trustees are conducting a preliminary investigation of PCB concentrations in eggs from a number of species of Hudson River birds.

5> *Evaluation of Avian Exposure From Feeding on Floodplain* The Trustees plan to survey the Hudson River floodplain to identify areas being used by certain bird species for nesting and feeding. This preliminary analysis could help determine whether species that live and feed in the floodplain have been exposed to PCBs and determine the need for future studies of floodplain-dependent bird species.

6> *Bald Eagle Monitoring* The Trustees are monitoring bald eagle nests for reproductive success and potentially collecting and analyzing blood samples to evaluate possible adverse effects from PCBs.

Mammal Injury Studies

1> *Mink and Otter Health* The Trustees plan to build upon existing NYSDEC mink and otter studies to determine PCB effects in these organisms.

2> *Bat Exposure* The Trustees plan to analyze PCB concentrations in bats that have been collected to assess the extent and severity of PCB exposure.

Reptile Injury Studies

1> *Snapping Turtle Consumption Advisory* New York State has issued a statewide advisory recommending limited consumption of snapping turtles due to PCB contamination. NRDA regulations under which the Trustees operate define the advisory as an injury to the resource. The Trustees plan to evaluate what part of the contamination that led to the statewide advisory is attributable to PCBs from the Hudson River.

2> *Snapping Turtle Health* The Trustees plan to collect and analyze snapping turtle eggs to assess potential PCB impacts and whether the eggs are a pathway for PCB contamination to other reptiles, birds, etc.

Water Quality and Sediment Injury Studies

1> *Water Quality Evaluation* Previous studies showed that PCBs in the Hudson River consistently exceeded water quality standards. NRDA regulations define exceedances of such State or Federal standards as an injury to the surface water. To document the injury to surface water resources, the Trustees are comparing existing water quality data with established water quality standards. The Trustees are also making a determination of the extent to which living resources have been injured by exposure to the surface water.

The Hudson River Trustee agencies — assessing and restoring your natural resources

2> *Sediments Characteristic of Solid Waste* The Trustees plan to evaluate existing Hudson River sediment data to determine if they exceed criteria for PCB levels specified under the Solid Waste Disposal Act. If the sediment exceeds SWDA criteria, this would also constitute an injury to surface water.

3> *Sediments Injury: Pathway and Biota* The Trustees may investigate whether PCB concentrations in sediments are sufficient to cause injury to other natural resources that are exposed to the sediments. The Trustees may compare Hudson River sediment data with existing scientific studies that examine PCB thresholds and effect levels to document where and when the sediments exceed these thresholds and effect levels.

Groundwater Injury Study

The Trustees plan to compile existing information regarding the presence of PCBs in groundwater resources in and around the Hudson River and compare that information to Federal and State water quality standards established for PCBs.

Geologic Resource Injury Study

The Trustees plan to compile existing information regarding the presence of PCBs in geologic resources, such as floodplains, in and around the Hudson River to determine if they exceed PCB criteria and standards specified in the Solid Waste Disposal Act and the Toxic Substance and Control Act. Geologic resources are injured when concentrations of PCBs exceed these standards.

Air Resource Injury Study

The Trustees may investigate existing information regarding the presence of PCBs in the air around the Hudson River to determine whether there are exceedances of air quality standards under the Clean Air Act or other Federal or State air standards.

Pathway Determination Studies

1> *PCB Source Evaluation* The Trustees are conducting a screening-level analysis of available data on sediment chemistry, sediment transport and deposition, fish tissue chemistry, and PCB loadings to the Hudson River. This analysis will allow the Trustees to make preliminary determinations regarding the relative PCB contribution from upriver sources.

2> *Foodweb Pathway Evaluation* The Trustees may develop studies to explore how PCBs move through the Hudson River foodweb from sediment-dwelling organisms to fish and wildlife.

3> *Floodplain Evaluation* In 2000, the Trustees conducted a preliminary investigation from Fort Edward to Stillwater and identified PCB contamination in floodplain soils and in small mammals. Floodplains are land areas next to rivers and streams that are periodically inundated by water. Preliminary results indicate that PCB concentrations in floodplain soils in the 20 miles downstream of Fort Edward ranged from undetected to 360 parts per million (ppm). The Trustees expanded this investigation in 2001 to refine the areas and species that may be exposed to PCBs in floodplains.

Damage Determination and Restoration Studies

1> *Recreational Fishing Lost Use Study* The Trustees are assessing the value of the lost use of the recreational fishery, specifically examining how fishing restrictions and consumption bans in the Hudson River affect angler behavior.

2> *Habitat Equivalency Analysis* The Trustees may conduct a Habitat Equivalency Analysis, which will help determine how much restoration is needed to address the injured resources from the date of the PCB release until recovery.

3> *Lost Navigational Services* The Trustees will determine the extent to which PCB-contaminated sediments have caused reduced navigational dredging resulting in decreased recreational and commercial boat traffic on the river, and the increases in costs of such dredging attributable to the PCB contamination.

4> *Assessment of Impacts to National Park Sites and Affiliated Areas* The Trustees plan to investigate whether the presence of PCBs has adversely impacted visitor use and perceptions and agency management plans for parks and historic sites in the Hudson River Valley.

Hudson River Damage Assessment Plan

How can I help?

You can obtain a copy of the Damage Assessment Plan and provide Trustees with your comments about our proposed approach to assess natural resource injuries. The plan is also located at information repositories throughout the state. Call Steven Sanford at 518.402.8996 for a location near you.
To receive a copy of the Damage Assessment Plan, please contact one of the individuals listed here or download a copy from one of the following websites:

www.darp.noaa.gov/neregion/hudsonr.htm
www.dec.state.ny.us/website/hudson/index.html
http://contaminants.fws.gov/restorationplans/HudsonRiver.cfm

The Trustees would also like to hear your ideas for possible restoration projects in the Hudson River Valley. Please tell us about habitats (wetlands, streams, etc.), resources (fish, birds, or other wildlife), or specific sites that could be restored or enhanced. Contact one of the individuals listed below to submit restoration project ideas.

How do I find out more?

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U.S. DEPARTMENT OF THE INTERIOR
MARCH 3, 1849

NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
NOAA
U.S. DEPARTMENT OF COMMERCE

DEPARTMENT OF ENVIRONMENTAL CONSERVATION
NEW YORK STATE