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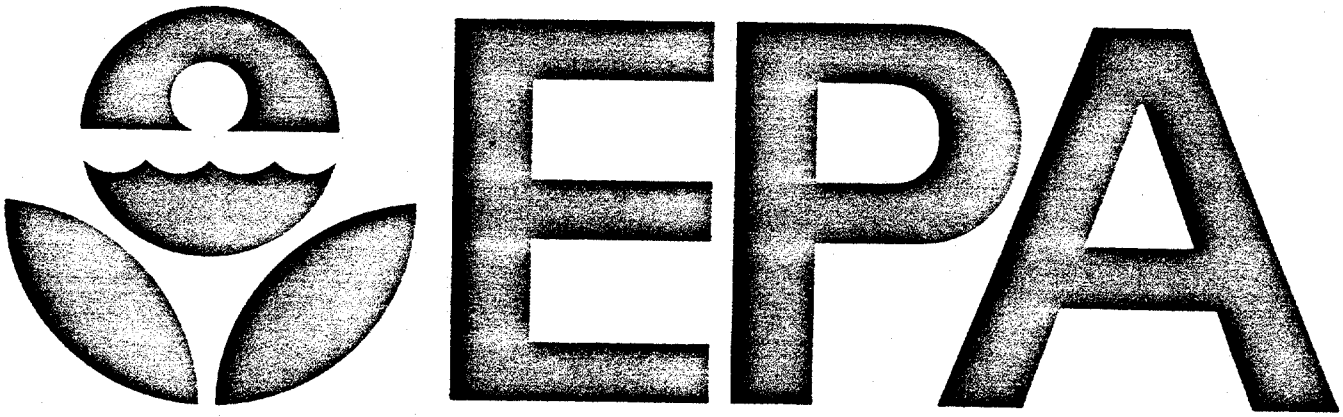

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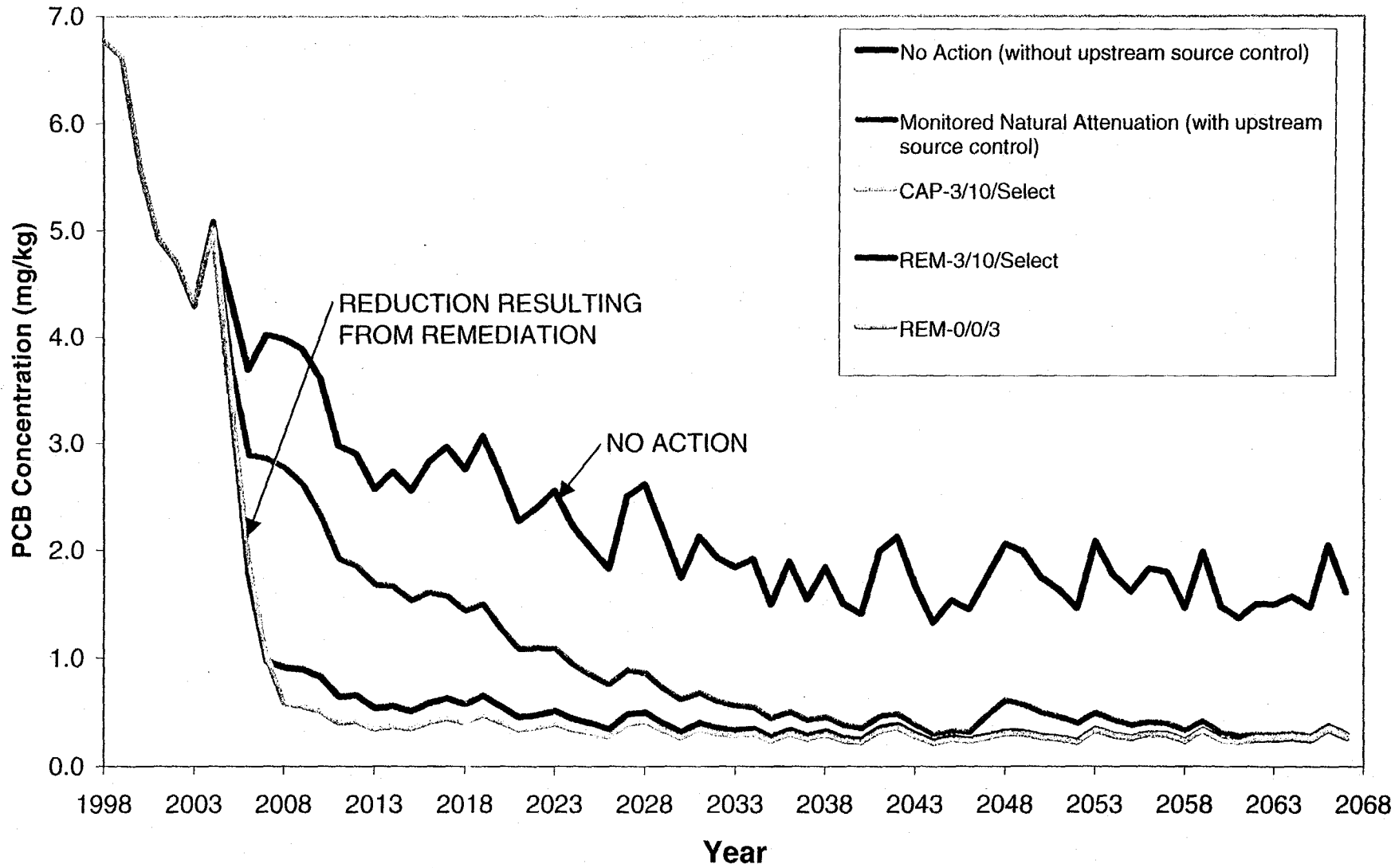
SPECIES-WEIGHTED PCB CONCENTRATIONS IN FISH: NO ACTION vs. ACTION
THOMPSON ISLAND POOL



INFORMATION REPOSITORIES FOR THE HUDSON RIVER PCBs REASSESSMENT PROJECT

Adriance Memorial Library
93 Market St.
Poughkeepsie, NY 12601

Catskill Public Library
1 Franklin Street
Catskill, NY 12414

County Clerk's Office
Washington Cty. Office Bldg.
Upper Broadway
Fort Edward, NY 12828

Crandall Library
City Park
Glens Falls, NY 12801

Cornell Cooperative Ext.
Sea Grant Program
10 Westbrook Lane
Kingston, NY 12401

NYSDEC
Div. Hazardous Waste Remediation
50 Wolf Rd.
Albany, NY 12233

Saratoga County EMC
50 West High St.
Ballston Spa, NY 12020

Saratoga Springs Public Library
49 Henry St.
Saratoga Springs, NY 12866

NY State Library
CEC Empire State Plaza
Albany, NY 12230

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

Troy Public Library
100 Second St.
Troy, NY 12180

White Plains Public Library
100 Martine Ave.
White Plains, NY 10601

US EPA Region 2
Superfund Records Center
290 Broadway, 18th floor
New York, NY 10007

The following "satellite" repositories have CD-Rom access, but may not contain all of the Reassessment documents:

Marist College
290 North Road
Poughkeepsie, NY 12601

Rensselaer Polytechnic Inst.
R.G. Folsom Library
Troy, NY 12180

University Library
SUNY/Albany
1400 Washington Ave.
Albany, NY 12222

Hudson River PCBs Reassessment Project

PCBs 101 - A Primer

PCBs or polychlorinated biphenyls are a group of chemicals consisting of 209 individual compounds. PCBs were widely used as a fire preventive and insulator because of their ability to withstand exceptionally high temperatures.

PCBs were banned by EPA in 1979, and are classified as probable human carcinogens by numerous national and international and environmental organizations, including EPA, the Agency for Toxic Substances and Disease Registry (an arm of the U.S. Public Health Service) and the World Health Organization. Research also links PCB exposure to reduced ability to fight infections, low birth weight, and learning problems.

PCBs and Health

PCBs build up (bioaccumulate) in the environment, increasing in concentration as they move up the food chain. This is of special concern in areas where fish are exposed to PCB contamination and may be eaten by people or wildlife (as in the Hudson River). At the Hudson River PCBs site, the best way humans can reduce their risk of exposure to PCBs is by following the state's health advisories for consumption of fish from the river. For more information on Hudson River health advisories and on PCBs and human health risks, please visit our website at www.epa.gov/hudson.

PCB Chemistry

There are 209 varieties of PCBs, known individually as congeners. A congener may have between one and 10 chlorine atoms, which may be located at various positions on the PCB molecule (see illustration on reverse).

As you can see, the chlorine atoms fall into three separate position categories, known as para, meta and ortho. PCB congeners are often categorized according to how many chlorine atoms are present on the molecule, such as:

monochlorobiphenyl:	1
dichlorobiphenyl:	2
trichlorobiphenyl:	3
tetrachlorobiphenyl:	4
pentachlorobiphenyl:	5
hexachlorobiphenyl:	6
heptachlorobiphenyl:	7
octachlorobiphenyl:	8
nonachlorobiphenyl:	9
decachlorobiphenyl:	10

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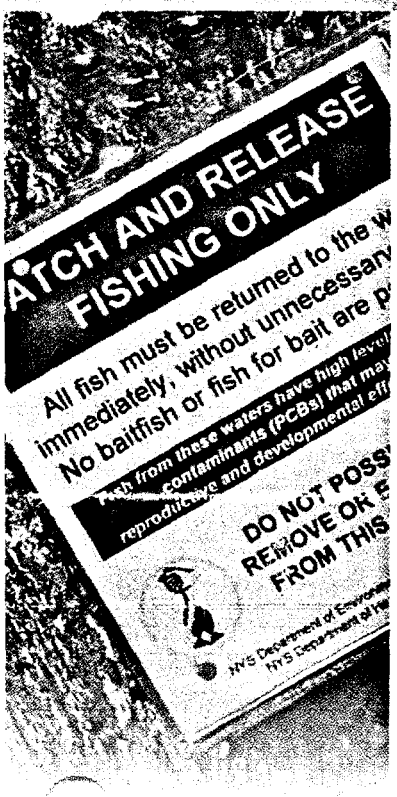


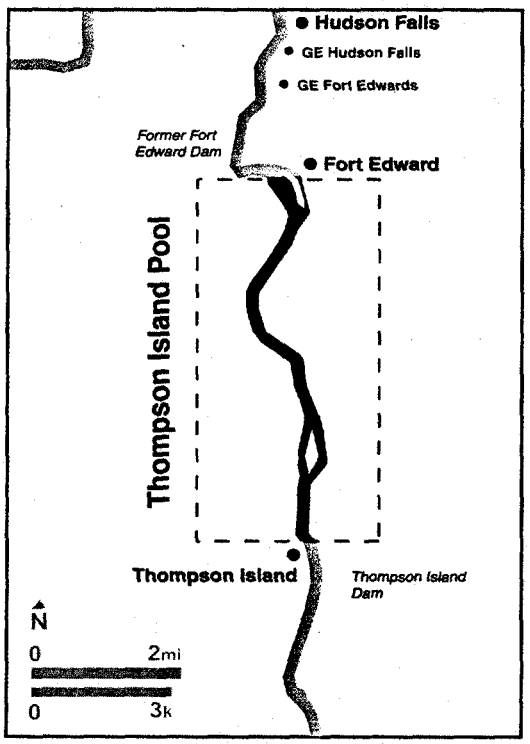
Using What We Know

Through the use of congener-specific analysis, we can "fingerprint" PCBs in water and sediment. This analysis allows us to see distinct PCB patterns or signatures in the environment through which we can identify the general area in which the source of PCBs is located, the original PCB mixture, and how the PCBs may have changed over time. Use of PCB "fingerprinting" in EPA's Hudson River PCBs Reassessment allowed us to see that PCBs from the historic sediments of the Thompson Island Pool can be traced in the water of the Hudson River all the way to Kingston, New York, a distance of 100 river miles.

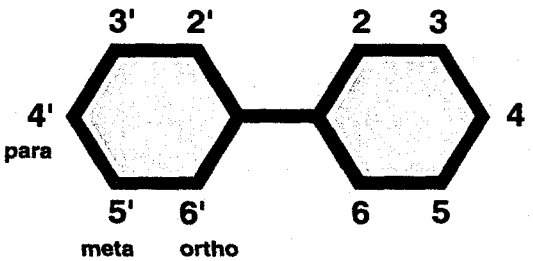
Is The River Cleaning Itself?

PCBs may undergo dechlorination, which is the process of removing chlorine atoms from a PCB molecule while leaving the main molecular structure intact. In the Hudson, this natural process is done by bacteria living in the river sediments, and only affects the outer chlorine atoms, or those in the meta and para positions. In most instances dechlorination of a PCB molecule simply yields a different PCB molecule. EPA Reassessment studies have confirmed that while dechlorination is taking place in the upper Hudson river, it is merely changing one kind of PCB into another. So the river is not "cleaning itself."

If you want more information, go to our web site at www.epa.gov/hudson or contact Ann Rychlenski, EPA Community Relations Coordinator at 212/637-3672, or at rychlenski.ann@epa.gov.



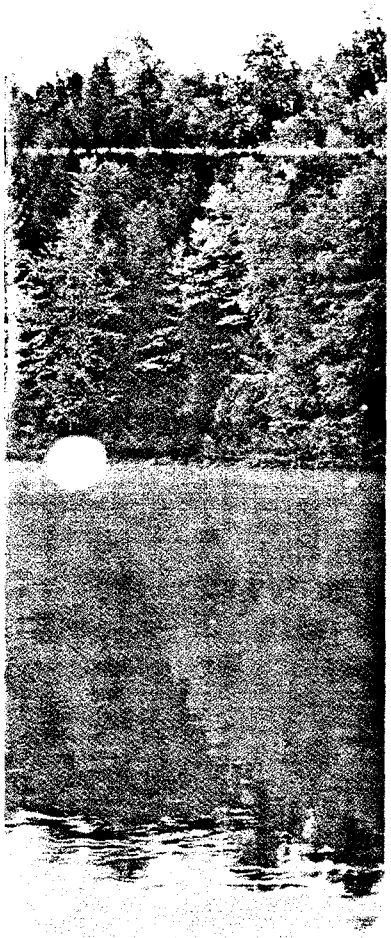
Thompson Island Pool and Surrounding Area



Structure of Polychlorinated Biphenyl (PCB) Molecule

Hudson River PCBs Reassessment Project

Site Background



The Hudson River PCBs Superfund site is approximately 200 river miles long and extends from Hudson Falls to the Battery in New York City. Over a 30-year period ending in 1977, approximately 1.3 million pounds of PCBs were discharged into the Hudson River from two General Electric Company (GE) capacitor manufacturing plants located in Fort Edward and Hudson Falls, New York. Many of these PCBs adhered to sediments that had accumulated behind the Fort Edward Dam. When the deteriorating dam was removed in 1973, the PCB-contaminated sediments were transported downstream. Studies conducted to evaluate the extent of the problem revealed that most of the contaminated sediments were in 40 "hot spots" situated in a 40-mile stretch of the river between Fort Edward and Troy.

PCBs are probable human carcinogens and may also affect the immune system, neurological development and reproduction. PCB contamination in the Hudson River persists today, and is why the health advisories on eating fish from the Hudson have been in place for over twenty years. Women of childbearing age and children under the age of fifteen should eat no fish from any stretch of the Hudson River south of Glens Falls. Various reaches of the river south of Albany carry different advisories that should be heeded by anglers and their families. The U.S. Environmental Protection Agency issued a proposal on what to do about the problem in December 2000. Following is a chronology of important events related to PCB contamination in the Hudson River. For more detailed information, check out our website at www.epa.gov/hudson.

Hudson River PCBs Reassessment Time Line

1976

The New York State Department of Environmental Conservation (NYSDEC) institutes fishing bans in the Hudson River due to PCB contamination in fish. The New York State Department of Health (NYSDOH) issues health consumption advisory to eat no fish from the upper Hudson River. Today, there is still a ban on commercial fishing in the lower Hudson River for certain species (i.e., striped bass), health advisories for the Hudson south of Catskill, and a program of catch and release only (eat no fish) in the river from Hudson Falls to Troy.

1977

EPA outlaws the manufacture and use of PCBs in the United States. EPA considers all PCBs to be probable human carcinogens.

1983

The Hudson River PCBs problem rates high enough to be placed on EPA's National Priorities List (NPL) of the nation's most hazardous waste sites.

1984

EPA issues a Record of Decision (ROD) for the Hudson River site. This ROD calls for the capping of the Remnant Deposits (areas of exposed sediment along the

Hudson River PCBs Reassessment Project

upper Hudson River in the vicinity of Ft. Edward, New York), and a study to see if the PCB contamination poses any threat to the downstream public water supply of Waterford, New York. Concentrations of PCBs in fish appear to be dropping quickly, and EPA decides on an interim basis to take no action on the PCBs in the river sediments. In addition, advances in cleanup technologies are to be made over the interim time period, which might make cleanup possible.

1989

EPA opens the Reassessment of the 1984 ROD, based in part on a request from the state of New York, and requirements of the Superfund program to conduct reviews every five years of remedial decisions on sites at which contamination remains on-site above health-based levels.

1990

EPA issues a Scope of Work for the Reassessment and holds the first public meeting. The Reassessment will be conducted in three phases, and will contain an extensive program of public participation specifically designed for the project.

1991

EPA implements the Community Interaction Program (CIP) for the Reassessment. A series of four meetings are held to bring together various constituencies from the Hudson River Valley for a program of public participation in the Reassessment.

EPA releases the Phase 1 Report - containing all of the information available on the Hudson River PCB issue from a variety of sources in one database. The findings of this report is designed to help the Reassessment's second phase of work. Additionally, EPA decides to take formal public comment on all Reassessment reports throughout the Remedial Investigation/Feasibility Study (RI/FS) process, unlike the "usual" Superfund process, during which EPA takes public comment only when the Proposed Plan is released.

Concentrations of PCBs in fish and water begin to increase. Ultimately, this is traced to a "new source" of PCBs from General Electric's Hudson Falls plant site. The site is under the jurisdiction of New York State. GE performs interim cleanup measures to stem the flow of pure PCBs reaching the Hudson River through cracks in the bedrock under and around the river and plant site.

1992-1994

EPA performs field sampling and investigations for Phase 2 of the project. Activities include: sediment core sampling, radionuclide dating (a way of dating sediment cores taken from the river bottom by using radioactive markers), water column sampling, side-scan sonar, and computer modeling.

1995

EPA releases the Phase 2 Database Report, which describes the organization of the data collected for the Reassessment. Approximately 750,000 records reside in the Reassessment database. A separate CD-ROM of the data is issued along with the report.

1996

Release of the Phase 2 Preliminary Model Calibration Report. This report, characterized as a "work in progress," outlines the mathematical assumptions that EPA plans to use in the computer modeling work to be done in Phase 2 that will aid in predicting future PCB levels.

1997

February: Release of the Phase 2 Data Evaluation and Interpretation Report. This report contains the first conclusions from EPA investigations conducted on water and sediments in the Hudson River.

October: EPA awards a Technical Assistant Grant (TAG) of $50,000 to environmental organization Scenic Hudson. Natural Resource Trustees (New York

State Department of Environmental Conservation, US Fish and Wildlife Service, National Oceanographic and Atmospheric Administration) release Preassessment Screen Determination, known as a PAS for the Hudson River. This indicates that the Trustees have determined that it is appropriate to undertake a Natural Resource Damage Claim on the Hudson River (due to its PCB contamination). This claim addresses the loss of the Hudson River as a resource both economically and culturally and seeks restoration of the resource.

1998

January: EPA's Science Policy Council published its Peer Review Handbook, which provides guidance on conducting peer reviews of major scientific and technical work products underlying Agency decisions. EPA ultimately decides to conduct five separate peer reviews for the Reassessment using independent scientific experts.

July: Release of the Phase 2 Low Resolution Sediment Coring Report, a companion volume to the Data Evaluation and Interpretation Report. Some of the findings contained in this report cause EPA to consider the taking some kind of "early action" to address the PCBs in sediments of the upper Hudson. This scenario is investigated and found to be inappropriate.

President Clinton designates the Hudson River as one of fourteen "American Heritage Rivers."

EPA Administrator Carol Browner testifies before the New York State Assembly Committee on Environmental Conservation on the PCB contamination in the Hudson River.

EPA releases the Scope of Work for the Human Health Risk Assessment, which describes the approach EPA will take in developing its assessment of risks to human health.

September: Peer Review #1: The approach to computer modeling is found to be acceptable with some major and minor revisions.

EPA releases the Scope of Work for the Ecological Risk Assessment, which describes the approach EPA will take in developing the assessment of risks to the ecology.

Simultaneously, EPA releases the Scope of Work for the Feasibility Study, which describes the approach EPA will take in evaluating cleanup alternatives for the PCBs in the sediments of the upper Hudson River.

October: EPA begins sampling of suspected PCB-contaminated soils on Rogers Island. This action is taken due to plans for development of the island as a resort and marina, the construction of which could expose people to PCB-contaminated soils.

1999

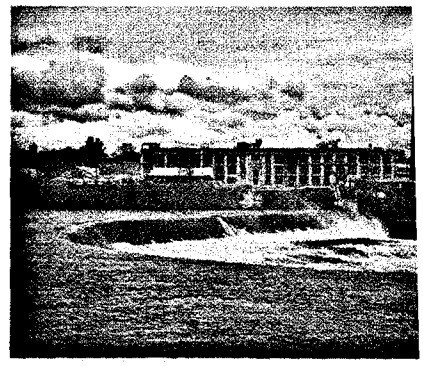
March: Peer Review #2: The Data Evaluation & Interpretation Report and Low Resolution Sediment Coring Report are found to be acceptable with minor revisions.

April: The National Academy of Sciences, as requested by the U.S. Congress, announces that it has formed a committee to conduct a study on possible adverse impacts from sediment dredging. The project is entitled "Assessment of Risks from Remediation of PCB-Contaminated Sediments."

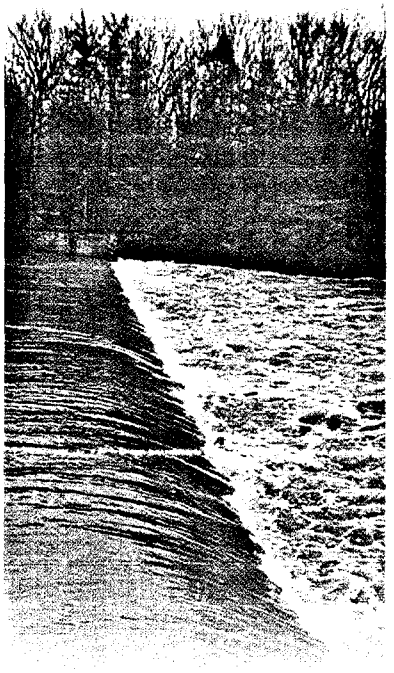
May: EPA releases the Phase 2 Baseline Modeling Report, which contains EPA's findings on future concentrations of PCBs in the fish, sediment and water of the Hudson River under a variety of scenarios.

August: EPA releases the Phase 2 Human Health Risk Assessment for the upper Hudson River. This report contains EPA's findings on both the cancer risks and non-cancer hazards posed to people by the PCB contamination in the upper Hudson River (from Troy north

Testing the waters of the Hudson.



General Electric Hudson Falls Plant.



to Hudson Falls). Simultaneously, the Agency releases the Phase 2 Ecological Risk Assessment for the Hudson River. This report contains EPA's findings on the risks posed to fish, birds and mammals by PCBs in the Hudson River.

October: EPA removes PCB and lead-contaminated soils from five residential properties on the northern end of Rogers Island.

2000

January: EPA releases the Human Health Risk Assessment for the Mid-Hudson River and the Ecological Risk Assessment on Future Risks in the Lower Hudson.

March: Peer Review #3: Revised Baseline Modeling Report is found acceptable by reviewers with some revisions.

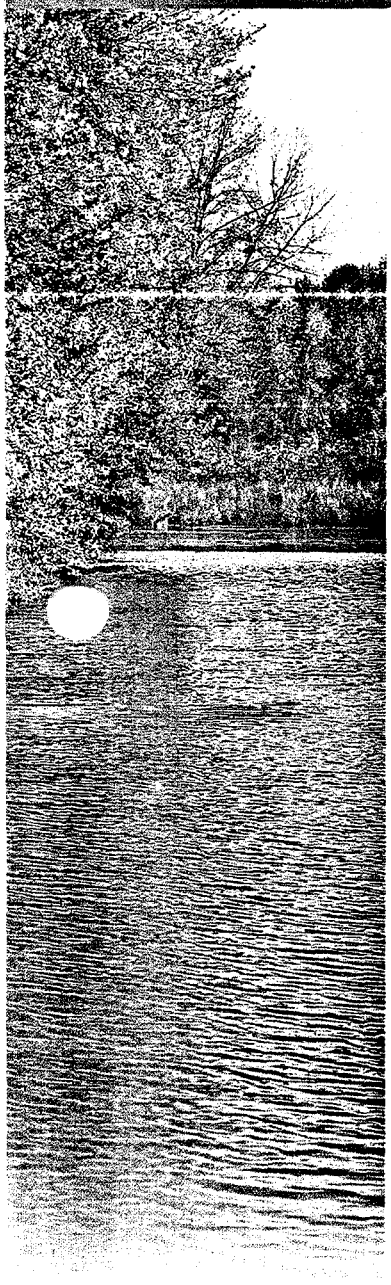
May/June: Peer Review #4: Two separate panels of experts review the Human Health Assessment and Ecological Risk Assessments. The Human Health Risk Assessment is found to be acceptable with minor revisions. The Ecological Risk Assessment produces a split panel - four of the six reviewers find the report acceptable with major to minor revisions, and two panelists find the report unacceptable.

June: EPA officially enters Phase 3, the final phase of work for the Reassessment, which consists of the Feasibility Study. The Feasibility Study, along with the Proposed Plan, is released in December 2000, with a Record of Decision to follow in June 2001.

Public Participation -
EPA's Community Interaction Program

In 1991, EPA began one of the largest and most comprehensive programs of public outreach in the history of the Superfund program. The Community Interaction Program, which was established for the Reassessment, involves the numerous and diverse constituencies that populate the Hudson River Valley, north and south of Albany. EPA believes that public participation is imperative to effective work at all Superfund sites, and is especially important at those sites at which public opinion and concern are at a consistently high level. The public must be heard throughout the process, and in this critical stage of the Reassessment, we are reaching out to all who want to be involved and provide input to EPA before a final decision is made. If you have concerns or questions about the Hudson River PCB problem, please join the Community Interaction Program; contact Ann Rychlenski, Community Relations Coordinator, USEPA at 212/637-3672 or e-mail at rychlenski.ann@epa.gov. You can also visit our website at www.epa.gov/hudson.

Hudson River PCBs Reassessment Project

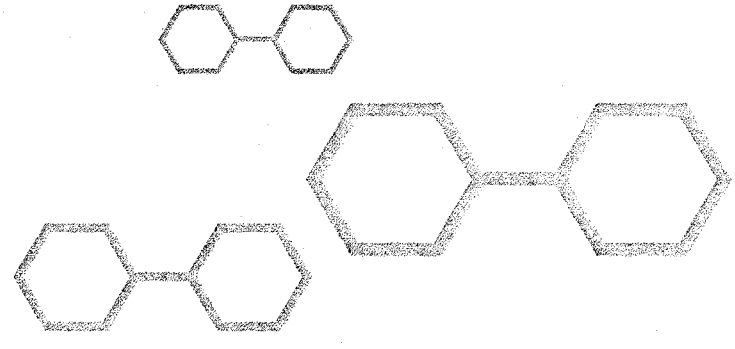


What We Know About the PCBs in the Hudson River

Over a 30-year period ending in 1977, as much as 1.3 million pounds of polychlorinated biphenyls (PCBs) were discharged into the Hudson River from two General Electric (GE) plants in Hudson Falls and Fort Edward, New York. PCBs are known to cause cancer in animals and probably cause cancer in people. PCBs may also cause serious non-cancer effects on the immune system, neurological development and reproduction. EPA listed this site on the Superfund National Priorities List (NPL) of the nation's most hazardous waste sites in 1984, but deferred a cleanup decision for the sediments because levels of PCBs in fish were still declining and possible remedies needed further study. The current Reassessment Project was started in 1989.

The Hudson River PCBs Reassessment has been conducted in three phases and encompasses a huge body of scientific work specifically designed to assist EPA in understanding PCB contamination in the sediments of the upper Hudson River between the Federal Dam at Troy and Hudson Falls, New York. Phase 3 is the final phase of work, during which various cleanup technologies and scenarios were evaluated and weighed before a cleanup plan was proposed by EPA. The Proposed Plan was issued in December 2000.

During Phase 1, EPA assembled a database of all available information about the Hudson River PCB problem from a variety of sources in government, academia and industry. Phase 2, which included the largest body of work from a multitude of scientific disciplines, included field sampling and analysis, computer modeling and risk assessments. It is this second phase that provided the findings presented in this fact sheet. The science upon which these findings are based has been peer reviewed by five independent panels of experts. EPA has adopted a "body of evidence" approach to the Reassessment, which means that no conclusion stands alone. The agency has based its ultimate decision on the total body of evidence. For more details, visit our website at www.epa.gov/hudson.



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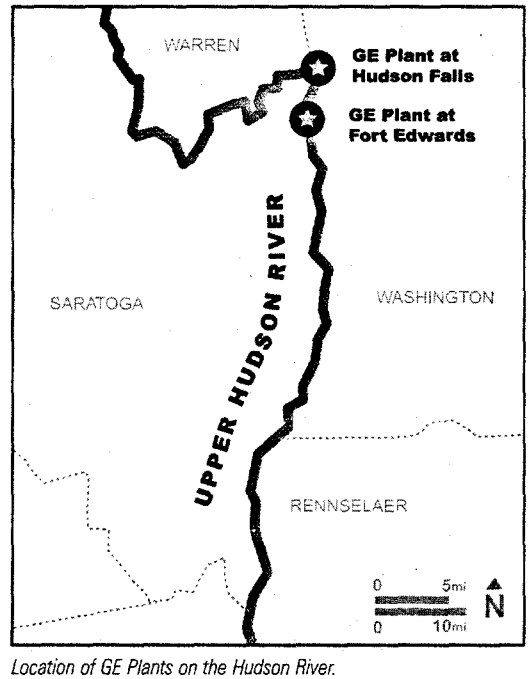
Hudson River PCBs Reassessment Project

This is what the science tells us:

The Source of PCBs

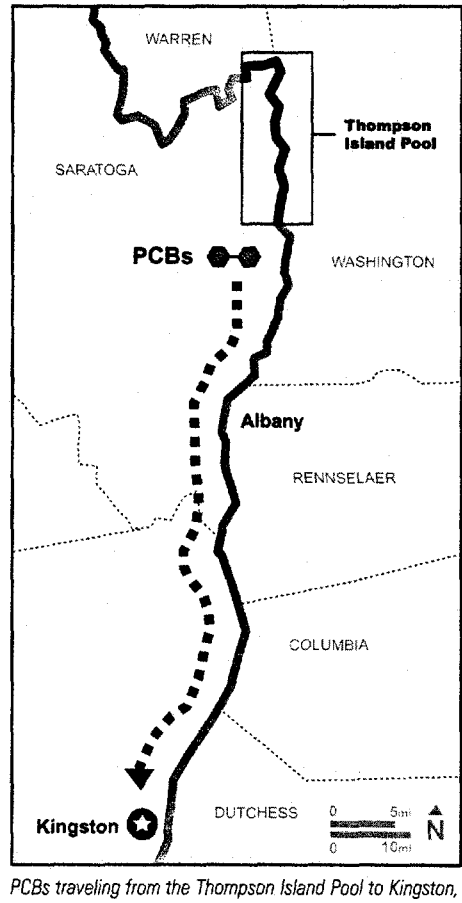
The area of the Hudson immediately upstream of the Thompson Island Dam (river mile 188) is the primary source of PCBs to the freshwater Hudson. This area includes the GE Hudson Falls and Fort Edward facilities, and the sediments of the Thompson Island Pool (a six-mile stretch of the upper Hudson north of the Thompson Island Dam). While releases from the two GE facilities contribute PCBs to the upper Hudson, EPA's scientific studies show the historic contaminated sediments, particularly in the Thompson Island Pool, to be the primary source of PCBs to the upper Hudson. The sediments are responsible for more than 75% of the PCB contamination in the freshwater Hudson.



Location of GE Plants on the Hudson River.

How PCBs Travel

The PCBs from the sediments of the Thompson Island Pool have a clearly identifiable "fingerprint" which can be tracked in the water for about 100 river miles of the Hudson all the way to Kingston, New York. Because there are 209 types of PCBs, or congeners, EPA used a type of analysis that tracked the transport of PCBs from their source in the upper Hudson downstream to the lower river. This analysis shows that the sediments are the primary source of PCBs to the Hudson, and that PCBs are moving and available to fish, wildlife and people through the food chain.

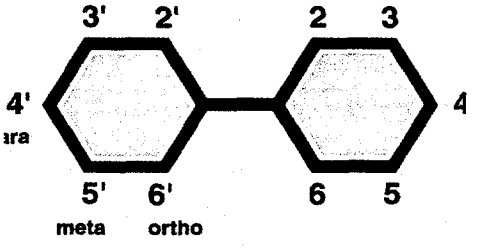


PCBs traveling from the Thompson Island Pool to Kingston, NY.

Why the Hudson is not "cleaning itself"

While PCBs do degrade naturally over time, they are not breaking down enough for the river to clean itself. Natural dechlorination, which removes some of the chlorine atoms from the PCBs, is taking place in the Hudson River. This process is not enough to render the PCBs harmless. It simply leaves a different type of PCB in place of the original molecule. EPA considers all PCBs, regardless of their level of chlorination, to be a probable cause of cancer in people, and there is evidence that links lighter chlorinated PCBs with serious non-cancer effects such as low birth weight and neu-

rological and developmental problems. In addition, burial of PCBs is not widespread enough in the river to keep the PCBs away from the food chain.



Structure of Polychlorinated Biphenyl (PCB) Molecule

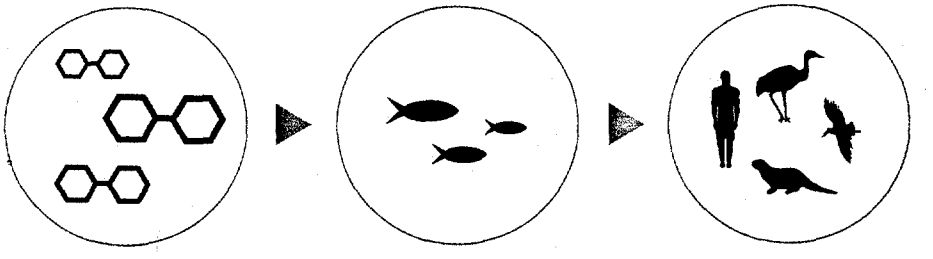
PCBs available to fish, wildlife and people

EPA's science shows that the PCBs are available through the food chain, making their way from small organisms into fish that feed on them. When contaminated fish are caught and eaten by people, the PCBs make their way into the human body, posing both cancer and non-cancer health hazards. EPA estimates the cancer risks to people who eat contaminated fish from the upper Hudson River to be 1,000 times higher than EPA's goal of protection. Non-cancer hazards in the upper Hudson were found to be 65 times greater than EPA's level of concern for adults, and 104 times greater for children age 6 and under. While risks from eating fish from the lower river were about half those found in the Upper Hudson, they still exceeded EPA's levels of concern and acceptability for both cancer and non-cancer effects.

Although PCB levels in fish have declined in the upper Hudson River, they are still high enough to prohibit consumption and commercial fishing. Overall, PCB levels today are not very different from what they were in the early 1980s. While the river is indeed cleaner than it was twenty years ago, it is not a healthy river as far as PCBs are concerned. Unfortunately, the fishing advisories and restrictions of Hudson River fish re still in place due to PCB contamination more than twenty years later. Women of childbearing age and children under the age of fifteen are advised to eat no fish at all from the Hudson River south of Hudson Falls. In addition, only catch and release fishing is allowed north of Albany, and there are health advisories for south of Albany on how much fish may be consumed depending on species caught and the reach of the river fished.

PCBs adversely affect Hudson River wildlife

Analyses done by EPA in the upper and lower Hudson River indicate that PCBs adversely affect the survival, growth and reproduction of fish, birds and mammals that live and feed in and near the Hudson River. This list includes animals such as the bald eagle, belted kingfisher, great blue heron, largemouth bass, striped bass, river otter and mink.



PCB s in Hudson *Fish* *Birds & Mammals*

How can I learn more about the Hudson River PCBs Reassessment?

EPA has designed an extensive program of public participation specifically for the Hudson River PCBs Reassessment Project. There are thirteen information repositories located throughout the Hudson River Valley where the public can review site-related documents. If you want more information, go to our web site at www.epa.gov/hudson or contact Ann Rychlenski, EPA Community Relations Coordinator at 212/637-3672, or at rychlenski.ann@epa.gov. Visit our website at www.epa.gov/hudson.

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ENVIRONMENT

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Hudson River PCBs Reassessment Project

PCBs: Hazardous to the Hudson, hazardous to your health.

The Hudson River looks healthy. Is there really a PCB problem?

The U.S. Environmental Protection Agency's (EPA's) Hudson River PCBs Reassessment Project is about health - the health of the Hudson River and the potential health impacts of PCBs (polychlorinated biphenyls) on people and the environment. For the last twenty-five years, the PCB contamination of the Hudson River and the fish that live in it has been serious enough for the New York State Department of Health to issue health advisories alerting the public to the hazards of eating fish from the river. And while the Hudson River does indeed, look healthy, looks can be deceiving.

You can't see, smell or taste PCBs in the fish. They don't make themselves visible to the human eye. But they are present in the Hudson River at unsafe levels, and assertions to the contrary, PCBs are a problem and are harmful. According to EPA's Human Health Risk Assessment for the upper Hudson River, human cancer risk from eating contaminated fish is 1,000 times higher than the Agency's goal of protection; non-cancer risks are 65 times greater than EPA's level of concern for adults and 104 times greater for children age 6 and younger .

How did the PCBs get into the Hudson River?

PCBs, which have been banned from manufacture or sale in the United States since 1977, were once widely used as coolants and lubricants in some electrical equipment due to their ability to withstand exceptionally high temperatures. Over a thirty-year period ending in the 1970's, approximately one million pounds of PCBs were discharged into the Hudson River from two General Electric Company (GE) capacitor plants located in Ft. Edward and Hudson Falls, New York. These PCBs were most often released in the form of an oil that is heavier than water. Because of this characteristic, PCBs tend to sink to the bottom of the river. They don't dissolve readily in water, but cling to the sediments where fish and other aquatic animals feed.

Do PCBs cause cancer?

EPA, as well as numerous national and international scientific and medical authorities, agree that PCBs cause cancer in animals and probably cause cancer in people. For EPA, strong evidence that supports this determination comes from a 1996 GE-sponsored study (known as the Mayes Study), which found increased numbers of tumors in rats exposed to various mixtures of PCBs. The findings of the 1996 GE study strengthened earlier studies which also demonstrated the ability of PCBs to cause cancer in rats by a number of laboratories and investigators. While some members of the public feel that rat studies are not relevant to the human condition, we must remember that hundreds of laboratories all over the world use rats in important medical and scientific studies each and every day. This is standard scientific procedure from which we derive important medical information on human diseases, treatments, cures and the potential for chemicals to affect human health.

In addition, a number of studies have been conducted among workers exposed to PCBs for various lengths of time. EPA's analysis of these studies provides evidence that PCBs probably cause cancer in people. For more information on the Agency's assessment of PCBs' can-

cer toxic potency, visit our website at www.epa.gov/hudson or www.epa.gov/iris/subst/0462.htm or www.epa.gov/ncea/pcbs.htm.

People are primarily exposed to PCBs from eating contaminated fish. Since this is the major pathway for PCBs to make their way into people along the Hudson River, it is important to follow the health advisories on fish consumption for the upper and lower Hudson River. For more information on the non-cancer health effects of PCBs, visit the IRIS website at www.epa.gov/iris/subst/0462.htm.

Are there any other effects on humans?

PCBs can cause non-cancer health effects, such as reduced ability to fight infections, low birth weights and learning problems. Studies of people living near the Great Lakes and other geographic locations, found these types of problems in the children of mothers exposed to PCBs as well as other toxic substances in Great Lakes fish. PCBs have also been linked to abnormal thyroid hormone levels in animals and humans. Again, people should protect themselves and their families from exposure by following state fish consumption advisories. For more information on the non-cancer health effects of PCBs, visit our website at www.epa.gov/iris/subst/0462.htm.

Until the River is healthy, how can I protect myself from exposure to PCBs in the Hudson River?

Health advisories on fish consumption of Hudson fish vary according to the reach of the river fished, species of fish and number of meals consumed. However, it is important for everyone to remember that:

- Eat no fish from the Hudson River south of Glens Falls regardless of where it was caught.
- If you are a woman of childbearing age or a child under the age of fifteen, you should eat no fish from the Hudson River regardless of where it was caught.

For more information on PCBs and human health, visit our web site at www.epa.gov/hudson. You may also contact the New York State Department of Health hotline on fishing advisories at 1-800-458-1158.

When will EPA decide on what to do about PCBs in the Hudson River?

EPA's Proposed Plan, which outlines the Agency's preferred method to address PCBs in the Hudson was issued in December 2000. The Proposed Plan is developed after a comprehensive evaluation of a range of cleanup alternatives. The Agency will take public comment on its proposal, will then respond to all significant comments and expects to make a final decision in June 2001.

How can I learn more about how I can participate in EPA's process?

EPA has established an extensive program of public participation for the Hudson River PCBs Reassessment Project. If you would like to get involved before a final decision is made, please contact: Ann Rychlenski, EPA Community Relations Coordinator for the Hudson River PCBs Reassessment at 212/637-3672 or via e-mail at rychlenski.ann@epa.gov.

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Hudson River PCBs Reassessment Project

The Feasibility Study and the Proposed Plan

EPA has come to the final phase of its Reassessment of the Hudson River PCBs site. The Third and final phase, which consists of the Feasibility Study and Proposed Plan, has been completed and released for public review and comment.

There are two major studies that comprise every Superfund site investigation, the Remedial Investigation and the Feasibility Study. During the Remedial Investigation, the Agency delineates the nature and extent of contamination at a site and evaluates the risks posed by the contaminants. Simply put, the Remedial Investigation tells us what contaminants we are dealing with, how much there is, where they are going and what effects the contaminants have on the environment and people. The Remedial Investigation for the Hudson River PCBs Reassessment was conducted in two phases, and the scientific work on which EPA's decisions will be made was reviewed by five panels of independent experts during an extensive peer review process.

Feasibility Study

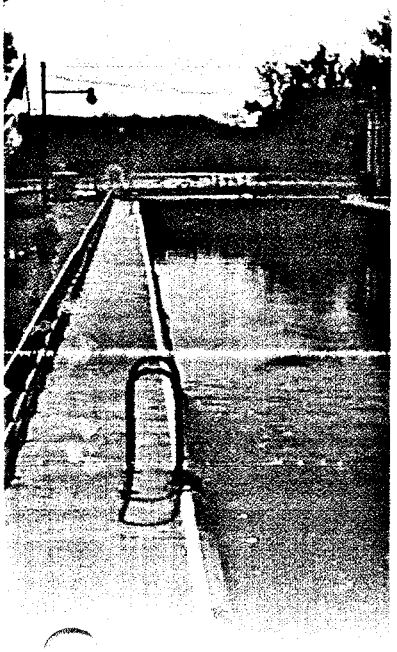
During the Feasibility Study, information generated through the Remedial Investigation is used to evaluate cleanup alternatives using criteria established under Superfund law. The results of the Feasibility Study then provide EPA with the basis and information needed to identify its preferred alternative for addressing the contamination, which is presented to the public in the Proposed Plan.

For the Hudson River Reassessment, the Feasibility Study is the evaluation of all the potential cleanup alternatives EPA has identified to address the PCBs in the sediment of the upper Hudson River. In September 1998, EPA issued the Feasibility Study Scope of Work for public comment. In June 1999, EPA released the Responsiveness Summary for the Feasibility Study Scope of Work in which EPA responded to all significant public comments that the Agency received on its planned work and approach.

EPA's Feasibility Study for the Hudson River Reassessment identifies remedial action objectives, which are the goals for protecting human health and the environment at the site. The remedial action objectives specify the contaminants of concern, where the contaminants are located and their potential exposure pathways, as well as preliminary "remediation" or cleanup goals. The preliminary remediation goals are established either through existing federal or state environmental laws or based on a level of risk.

Once the remediation goals have been established, possible alternatives for cleanup and potentially suitable cleanup technologies including innovative ones, are identified. These are the approaches that may satisfy the remedial action objectives. Those identified in the Feasibility Study Scope of Work include:

- No action (an alternative considered for all Superfund sites, as required by law)
- Monitored natural attenuation
- Containment (i.e., capping)
- In-place treatment
- Complete or partial removal (dredging) of PCB-contaminated sediments with on-site or off-site treatment or disposal



Potentially suitable treatment technologies and process options are then screened for effectiveness, implementibility and relative cost. After screening the treatment technologies and process options, EPA develops and screens various scenarios or alternatives to evaluate which will best achieve the remedial action objectives for the site. The alternatives are then evaluated and compared to one another using the Agency's nine criteria for selecting a remedy at Superfund sites. Community acceptance is evaluated after the Agency has received public comment on its preferred alternative and before the agency selects its final remedy.

The Nine Criteria

- Overall protection of human health and the environment
- Compliance with ARARs (Applicable or Relevant and Appropriate Requirements), such as existing state and other federal environmental laws
- Long-term effectiveness and permanence
- Reduction of toxicity, mobility, or volume through treatment
- Short-term effectiveness
- Implementibility
- Cost
- State acceptance
- Community acceptance

Proposed Plan

The Proposed Plan is the document issued to the public that identifies EPA's preferred cleanup alternative. The document outlines pertinent information from the Remedial Investigation and Feasibility Study and provides a summary of the alternatives that the Agency evaluated.

Now that the Proposed Plan for the Hudson River PCBs Reassessment has been issued, EPA is holding public meetings at which the Proposed Plan is being formally presented. EPA has opened a public comment period during which oral and written comments from the public will be considered. After the public comments have been reviewed, EPA will sign a Record of Decision (ROD) that documents its final decision on how to best address the PCB-contaminated sediments in the upper Hudson River. Along with the Record of Decision, EPA will issue a responsiveness summary, which will provide the Agency's response to all significant comments submitted during the public comment period.

Schedule

The Proposed Plan was issued in December 2000 and the Record of Decision is scheduled to be signed in June 2001.

For more information you may contact Ann Rychlenski at 212/637-3672 or e-mail at rychlenski.ann@epa.gov. You may also visit or website at www.epa.gov/hudson.