



The Lower Fox River

Introduction

Twenty paper mills operate along the 39-mile Lower Fox River in Wisconsin, reportedly the highest concentration of paper mills in the world along a single river segment. The Lower Fox River ("Lower Fox") is also one of the most heavily contaminated waterways in the U.S. River sediments contain an estimated 90,000 pounds of polychlorinated biphenyls ("PCBs"). Carbonless copy paper manufactured from 1957 to 1971 contained an average of 3.4% PCBs, in the form of Aroclor 1242. Carbonless copy paper recycling operations are believed to have resulted in the largest discharge of PCBs to the river. PCBs are a human carcinogen and are linked to intellectual impairment in children exposed to PCBs in utero. PCBs are also linked to reproductive and other abnormalities in fish and wildlife.

Recognizing that they shared some responsibility for the PCB contamination, in 1992 seven area paper mills agreed to voluntarily join forces with the State of Wisconsin Department of Natural Resources ("DNR" or "WDNR") and other local governmental entities to form the Fox River Coalition (the "Coalition"). The Coalition agreed to: investigate the PCB contamination; form a technical workgroup to set cleanup goals; identify cost-effective cleanup options, including where and when to conduct cleanup activities; and form a finance workgroup to seek a mix of public and private cleanup funds. In January 1997, the seven paper mills (known as the "Fox River Group") committed to spend \$10 million on resource assessment and restoration projects over the next two years, subject to DNR oversight.

The U.S. Environmental Protection Agency ("EPA"), however, was growing increasingly skeptical about the progress being made by the Coalition. In August 1996, another Federal agency, the U.S. Fish & Wildlife Service ("F&WS"), had completed a CERCLA natural resource Assessment Plan for the Lower Fox. In June 1997, EPA notified

Mary Decker prepared this case study, under the editorial guidance of Barton H. ("Buzz") Thompson, Jr., Robert E. Paradise Professor of Natural Resources Law, Stanford Law School, as a basis for classroom discussion rather than to illustrate either effective or ineffective handling of an environmental matter. Some or all of the characters or events may have been fictionalized for pedagogical purposes. Copyright © 1998 by the Board of Trustees of the Leland Stanford Jr. University. To request permission to use or reproduce case materials, write to Environmental and Natural Resources Law and Policy Program, Stanford Law School, 559 Nathan Abbott Way, Stanford, CA 94305 or visit www.stanford.edu/group/law/library/casestudies/lawschool.shtml.

Wisconsin Governor Tommy Thompson that the Agency had decided to list the Lower Fox on the Federal Superfund National Priorities List. The Governor, a strong advocate of states' rights, opposed this federal action, arguing it would result in a less effective cleanup that would take more time and cost more money than the voluntary work already underway.

On July 3, 1997, EPA issued special notice letters under Section 122 of CERCLA to the seven paper mills. In the special notice letters, EPA invited the PRPs to conduct or finance a comprehensive Remedial Investigation/Feasibility Study ("RI/FS") for the Lower Fox. EPA requested that within 60 days, the PRPs make a written good faith offer to conduct the RI/FS.

As General Counsel for one of the seven paper mills, what strategy would you recommend your company adopt in the short term? the long term? Why do you recommend this approach? What could the paper mills have done differently to avoid the NPL listing? Is listing of the river now inevitable?

Fig. 1. Lower Fox River/Green Bay Assessment Area



Source: Assessment Plan, F&WS, August 1996

CERCLA Statutory Provisions

Under Section 107(a) of CERCLA, liability for cleanup costs and damages is triggered when a “release” or threatened release of a “hazardous substance” occurs from a “facility.” The categories of “covered persons” who are liable for Superfund response costs and natural resource damages that result from releases are also described in Section 107(a). Section 107(c)(1)(D) limits each owner/operator’s liability for “each release of a hazardous substance or incident involving a release of a hazardous substance” to the costs of response, plus \$50 million for any damages. Section 113(g) contains the statutes of limitations applicable to cost recovery actions and natural resource damage claims.

Section 104 of CERCLA authorizes EPA to respond to releases at NPL sites using Superfund monies and to later seek reimbursement from private parties liable under Section 107. Section 106 of CERCLA authorizes EPA to issue unilateral orders requiring private parties to take specified actions to abate actual or threatened releases that may pose “imminent and substantial endangerment” to human health or the environment.

Under the special notice procedures of Section 122(e) of CERCLA, EPA may initiate negotiations with potentially responsible parties (“PRPs”) if the agency believes this approach will expedite remedial action. Under these procedures, EPA notifies all known PRPs of their potential CERCLA liability and provides them with the names and addresses of the known PRPs, the volume and nature of hazardous substances contributed by each PRP, and a volumetric ranking of the substances at the facility, to the extent such information is known. During this negotiation period, EPA and some or all of the PRPs may agree to an administrative consent order describing certain investigation and cleanup tasks the PRPs will perform. If no negotiated agreement is reached, EPA may begin its own RI/FS ninety days after providing the notice and information.

CERCLA Regulations

Section 105 of CERCLA requires that EPA promulgate a National Oil and Hazardous Substances Pollution Contingency Plan, or “NCP.” The NCP regulation, codified at 40 CFR Part 300, establishes guidelines and procedures for responding to releases and threatened releases of hazardous substances.

Section 105 of CERCLA also requires that EPA compile a list of national priorities among the known or threatened releases (the National Priorities List, or “NPL”). The NPL is codified in Appendix B of the NCP and is revised annually. As a policy matter, EPA may add sites to the NPL that score 28.5 or higher on the Hazard Ranking System (“HRS”). EPA uses the HRS to screen the potential of uncontrolled hazardous substances to pose a threat to human health or the environment by evaluating four exposure pathways: ground water, surface water, soil, and air. The HRS is described in Appendix A of the NCP. To update the NPL, EPA publishes a proposed rule in the Federal Register. After public notice and comment on the proposed NPL addition, EPA may publish a final rule updating the NPL.

The Department of Interior has promulgated natural resource damage assessment regulations under CERCLA. These regulations are codified at 43 CFR Part 11.

Background on PCBs

Polychlorinated biphenyls (“PCBs”) comprise a family of 209 man-made hydrogen compounds that are highly resistant to wear and chemical breakdown. From 1929 to 1977, PCBs were produced in the United States for use in electrical equipment, hydraulic fluids, and carbonless copy paper, among other things. Though PCBs were banned in the U.S. and most other western nations in the 1970s, PCB residues can still be detected today in the fatty tissues of virtually every person living in an industrialized country, being among the most ubiquitous and persistent environmental contaminants on earth. Recent studies have indicated that some types of PCBs may decompose over a period of years and may become less toxic after weathering. But these studies also showed that chlorine-containing PCBs travel up the food chain and may actually become *more* toxic over time. These PCB molecules attach themselves to sediment and are ingested by small invertebrates, fish, birds, and humans. PCBs are listed as a CERCLA hazardous substance under 40 CFR Part 302.4.

Human Health Effects

Because PCBs remain in the environment a long time, humans can consume significant concentrations of PCBs over time. PCBs are lipophilic – they have an affinity for fatty tissues. Consumption of fatty sports fish from contaminated waters is considered to be a major exposure route for humans, though not the only significant exposure route. Studies have shown that exposure to high levels of PCBs can cause liver damage, gastric disorders, skin lesions, reproductive and developmental effects, and cancer.

School age children were the subject of a recent study involving in utero exposure to PCBs from Lake Michigan fish.¹ The researchers concluded that eleven year olds who had been the most highly exposed to PCBs in utero were three times as likely to have low average IQ scores and twice as likely to be at least two years behind in reading comprehension.

At the same time this new study was being reported, EPA downgraded the cancer risk of PCBs, based on new scientific information.² The revised risk assessment considered data from four PCB mixtures (Aroclors 1260, 1254, 1242, and 1016), while previous risk assessments and cancer studies had focused on only one trademarked PCB mixture: Aroclor 1260. EPA’s revised PCB risk assessment concluded that the risk of cancer is twenty times less than previously believed for people exposed to PCBs through drinking water, air, or dermal contact, and is nearly four times less than previously believed for people exposed to PCBs by ingesting contaminated fish or soil.

The revised EPA risk assessment is expected to affect cleanup methods chosen for PCB contaminated Superfund sites, since a baseline risk assessment (including a human

¹ Intellectual Impairment in Children Exposed to Polychlorinated Biphenyls in Utero, J.L. Jacobson and S.W. Jacobson, published in *The New England Journal of Medicine*, Vol. 335, No. 11, September 12, 1996.

² *The Patriot Ledger*, Quincy, MA, September 6, 1996.

health evaluation that assesses cancer risk) is conducted as part of an RI/FS. At least 271 PCB-contaminated Superfund sites exist. EPA plans to use the new scientific findings in future Superfund cleanup assessments, while past projects would be revisited on a site by site basis.

In 1996, DNR analyzed the human cancer risk for ingestion of fish species from the Lower Fox and found that the excess cancer risk exceeds one in 100,000, which represents a potentially significant risk to human health according to EPA guidance on human cancer risk assessment methods.³

Natural Resource Effects

Land uses in the Fox River Valley include a mixture of light and heavy industry, agriculture, residential, and land conservancy, including wetlands. Besides the paper industry, agriculture remains an important economic base. The river corridor also provides recreational resources (including one of the largest inland lakes in the nation) and habitat for waterfowl, fisheries, and wildlife. Fishing, boating, and waterfowl hunting are popular activities. Twelve dams impound the Lower Fox, which once was navigable from Lake Winnebago to Green Bay through a series of seventeen locks. The Army Corps of Engineers is reportedly willing to sell the locks, which no longer operate and whose approach channels the Corps no longer maintains.

All waters in the Lower Fox, Green Bay, and Lake Michigan exceed the PCB water quality standards developed by EPA under the Federal Clean Water Act for protection of aquatic organisms and other wildlife. According to a 1996 DNR investigation, PCBs exert broad toxic effects on virtually all organisms of concern in the Fox River watershed. Numerous studies have shown that dozens of fish, birds, and wildlife species in the Great Lakes region have elevated PCB levels in their tissues and eggs. While many effects are species-specific, general negative effects include:

- death;
- reproductive and developmental toxicity;
- hepatic lesions;
- tumor promotion; and
- immune system suppression.⁴

PCBs in the Lower Fox River

Paper mills began operating in the Fox River Valley in 1853. Today, the valley is often called the “Paper Valley” because of the high concentration of mills operating in the area. Some say the paper industry is to the Fox River Valley what the computer industry is to the Silicon Valley in California. While paper making is the main industry in the valley today,

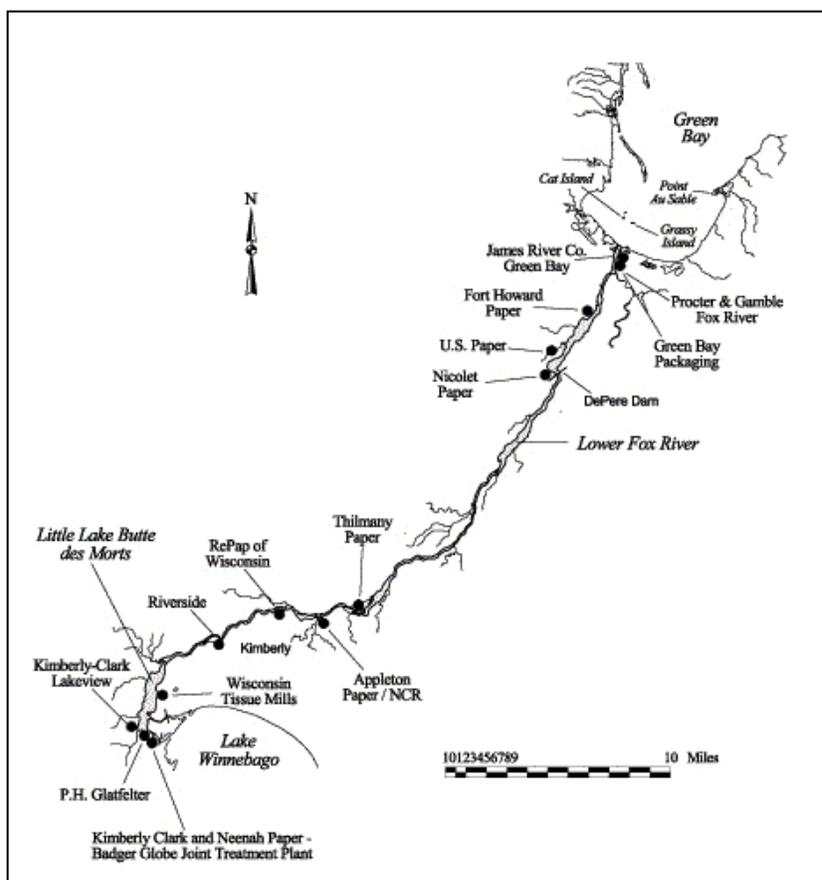
³ Remedial Investigation Report for Contaminated Sediment Deposits in the Fox River, p. 6-41, WDNR, September 24, 1996.

⁴ Id. at 6-60.

other industries have grown up around the paper mills, including wood products operations, chemical manufacturing, printing, and metal working.

From 1957 to 1971, Fox River Valley paper mills used PCBs in the manufacture of carbonless copy paper, though de-inking of carbonless paper during recycling is believed to have discharged the largest amounts of PCBs. In the de-inking process, a PCB coating was scraped off used carbonless copy paper and discarded remnants of new carbonless copy paper, before the pulp was recycled. In the mid-1970's, EPA restricted the manufacture, transport and disposal of PCBs in the U.S. Federal law banned all production and use of PCBs in the U.S. in 1979.

Fig. 2. Lower Fox River/Inner Green Bay Paper Mills



Source: Assessment Plan, F&WS, August 1996

PCBs were identified in sediments and waters of the Lower Fox in the early 1970's. By the time PCBs were banned in 1979, paper mills in the Fox River Valley had already discharged an estimated 250,000 pounds of PCBs into the Lower Fox. About 160,000 pounds of these PCBs are believed to have migrated from the Lower Fox into Green Bay and Lake Michigan. About 90,000 pounds of PCBs, or about 40,000 kgs, remain trapped in sediments in the Lower Fox. On average, 600 additional pounds of PCBs are flushed from the Lower Fox into Green Bay annually. A major flood could flush thousands of additional pounds into Green Bay. Once released into Green Bay and Lake Michigan, the PCBs are believed to be difficult to impossible to remove.

Fish Consumption Advisories

DNR has documented elevated PCB levels in fish in the Lower Fox since 1976. Since then, the State of Wisconsin has issued annual fish consumption advisories that describe the kinds and amounts of fish from the Lower Fox that can be safely eaten. For example, according to the 1997 advisory, white bass caught below the DePere Dam should not be eaten at all. Other fish species, such as walleye, can be eaten in specified amounts if they are less than 16 inches long. Despite these advisories, government officials and environmentalists remain concerned over the number of people who regularly eat unsafe amounts of fish from the Lower Fox, either unaware of, or ignoring, the warnings.

According to Brett Hulsey of the Sierra Club, "The real concern is that most people who eat the fish, especially women and minorities, are not aware of the polluted fish warnings."⁵ A recent study conducted jointly by the Sierra Club and the Great Lakes Center for Environmental Safety and Health at the University of Illinois, revealed that two-thirds of the women surveyed in families that ate fresh-caught fish were unaware of the fishing restrictions, and 80% of the non-white anglers were unaware of the restrictions.⁶

EPA officials have described the fish advisories as "unenforceable."⁷ Mark Derricks, local chapter president of Walleyes for Tomorrow, reported that he regularly sees 15 to 20 Hmong fishermen fishing at the mouth of the Fox River. "We've seen people keeping walleye in the 20 to 30-inch class, and the book recommends anything over 18 inches is not to be eaten." A 36 year old Hmong fisherman, Neng Moua Lyboualong, was recently interviewed after catching 20 white bass from the Lower Fox River. "For my family to eat," he said. "The water is not dirty. It's clean enough."⁸

The Lower Fox River PCB Investigation

PCB contamination in the Lower Fox has been the subject of numerous government and university studies since at least the mid '80s. Some call it the most studied river in the world. Most studies have been conducted by universities or government agencies, including the F&WS; the Army Corps of Engineers; the DNR; the EPA; the Oneida and Menominee

⁵ Appleton Post-Crescent, September 17, 1997.

⁶ Id.

⁷ Wisconsin State Journal, September 18, 1997.

⁸ Appleton Post-Crescent, September 17, 1997.

Indian Tribes; and the Fox River Coalition, an organization of more than 30 entities representing industry, local governments, DNR, and local wastewater treatment facilities. The F&WS studies have focused on assessing damage to natural resources under CERCLA.

By the spring of 1997, over \$25 million in public funds had been expended on these studies. A group of seven PRPs, the Fox River Group, had committed to provide an additional \$10 million for dredging and restoration pilot projects during 1997 and 1998.⁹

Location of PCB-Contaminated Sediments

Government studies have shown that about 10% of the PCB contaminated sediments exist in numerous discrete deposits located in a 32 mile stretch of river between Lake Winnebago and the DePere Dam. These numerous discrete deposits total an estimated 4,000 kgs of PCBs, or two million cubic yards of sediments containing concentrations of PCBs above 50 ppm. The remaining 90% of PCB contaminated sediments exist in one large deposit in the seven mile stretch of river from the DePere Dam to Green Bay. The one large deposit below the DePere Dam totals about 30,000 kgs of PCBs, or six million cubic yards of sediments with concentrations above 50 ppm.

WDNR Modeling of Potential Cleanup Approaches

In February 1997, the DNR completed its modeling analysis of the following three sediment cleanup scenarios:

- No action
- 3 Up and 17 Down (remediate Deposits A, C, and POG upstream of DePere and 17 Sediment Management Units (“SMUs”) downstream of DePere)
- 4 Up and 50 Down (remediate Deposits A, POG, D/E, and N upstream of DePere and 50 SMUs downstream of DePere).¹⁰

The modeling analysis did not address possible remediation *methods* or projected *costs*. The Fox River Coalition Technical Workgroup, including representatives from the F&WS, EPA, and three paper mills, contributed to this report.

By conducting computer modeling of different sediment cleanup options, DNR was able to predict improvements in water quality, sediment concentrations, and fish tissue concentrations that would result under each scenario. The environmental endpoints, or standards used to guide the remediation planning and modeling, are as follows:

- Attainment of existing PCB water quality criteria (0.49 parts per trillion for warm water fisheries; 0.15 parts per trillion for the Great Lakes)

⁹ The Capital Times, April 21, 1997.

¹⁰ Polychlorinated Biphenyl (PCB) Contaminated Sediment in the Lower Fox River: Modeling Analysis of Selective Sediment Remediation, WDNR, February, 1997.

- Reduce export of PCBs to Green Bay (no numeric goal set)
- Protect bird and mammal health (for mink, the most sensitive species, a protective fish tissue PCB concentration is 0.023 parts per million)
- Protect human health through safe fish consumption (based on Great Lakes Sport Fish Consumption Advisory).

WDNR's RI/FS for Deposits N and POG

In April 1997, DNR released its Feasibility Study Report for Deposits POG and N on the Fox River.¹¹ For these two deposit areas, DNR developed remedial action objectives to protect the Lower Fox and the watershed, human health, the top ecological receptors (eagles and mink), and to satisfy applicable or relevant and appropriate requirements, or "ARARs." ARARs are cleanup standards and other substantive requirements under State or Federal law that address a contaminant or other circumstance at a cleanup site.

The Feasibility Study, conducted by DNR and the Fox River Coalition, analyzed the applicability of five potential remedial alternatives for Deposits N and POG. The five potential remedial alternatives considered were:

- (1) no action (the NCP requires that the no action alternative be considered);
- (2) institutional controls (e.g., periodic visual monitoring and sampling to track site conditions, access and deed restrictions, fish consumption advisories);
- (3) in-place containment/capping or confinement of entire deposit behind a physical barrier (leaves sediments isolated in place);
- (4) dredging, treatment and disposal; and
- (5) dredging and treatment of shallow sediments, containment of deeper sediments.¹²

The DNR report concluded that the top remedial alternatives for Deposit N are, in order of preference: dredging with treatment and disposal (cost estimate: \$2.8 to \$4.4 million); and containment of the entire deposit (\$1.6 to \$2.0 million). The DNR concluded that the top remedial alternatives for Deposit POG, are, in order of preference: dredging with treatment and disposal (\$96.5 to \$153.1 million); capping (\$2.7 to \$3.4 million); and combination of dredging and capping (\$76.5 to \$121.7 million).

¹¹ In September 1996, WDNR had released its Remedial Investigation Report for Contaminated Sediment Deposits ("RI"), identifying the lateral and vertical extent of PCB and mercury contamination in bottom sediments in four discrete deposit areas that had been identified previously as the most contaminated. The RI was funded by the State and the Fox River Coalition.

¹² Feasibility Study Report for Deposits POG and N on the Fox River, Final Draft, State of Wisconsin, April 1997.

Dredging was assumed to be by hydraulic dredge. Dewatering could be performed either by a belt filter press (the cheaper approach) or by constructing a Central Disposal Facility (“CDF”). A CDF is a diked structure that would temporarily isolate and contain dredged sediments, while evaporation takes place. A belt filter press would mechanically dewater sediments using gravity drainage and compression. The de-watered sediments would be stabilized by adding a lime and fly ash mixture to the sediments. Stabilization was selected as the preferred treatment option because it would treat both PCBs and mercury contamination equally well, and because it was moderate in capital and operation and maintenance costs. Off-site disposal of treated sediments was assumed to be in a commercial TSCA-permitted landfill within the State of Wisconsin.

Dredging

Dredging is the removal or excavation of contaminate sediments from a water body, and is a common practice around the world to maintain navigational channels and to remove sediments known to be contaminated. Two of the four remediation alternatives analyzed in DNR’s 1997 Feasibility Study included dredging as part of the cleanup. The PRPs raised concerns regarding possible resuspension of contaminated sediments in the water column during dredging activities, and asked that this technical problem be carefully evaluated prior to the selection of any final remediation alternative. The PRPs argued that many environmental experts believe that dredging causes more harm than good because of the resuspension of contaminants, and urged that other remedial alternatives such as natural recovery and capping of the sediments in place be carefully considered. The PRPs stressed that the Lower Fox should be evaluated as a unique waterway; a “cookbook” remedial approach that simply adopted dredging operations used by EPA at other Superfund sites should be avoided.

According to EPA guidance on remediation of contaminated sediments, the release of contaminants to the water during dredging is a primary concern and may override other factors involved in selecting the type of dredge used. Extraordinary care and expense may be required to minimize sediment resuspension or spillage. Sediment re-suspension rates are site-specific, but in addition to the dredging equipment and methods used, they are influenced by: the sediment type and quality; water depth; waves, tides, and currents; wind speed and direction; and water temperature, salinity and density.

Two common types of dredging are mechanical clamshell dredges and hydraulic dredges.¹³ Hydraulic dredging is generally less likely to cause significant resuspension of sediments. In a clamshell dredge, or grab dredge, a crane operator drops a bucket through the water, allowing it to sink into bottom sediments on contact. The operator lifts the loaded bucket, closing it. The operator then swings the bucket over the receiving container and lowers the bucket to release the contents. The clamshell dredge has been used at many Great Lakes sites for removing both clean and contaminated sediments. About 77 clamshell bucket-style dredges are stationed in various Great Lakes ports.

¹³ Assessment and Remediation of Contaminated Sediments Program, Remedial Guidance Document, EPA, October 1994.

In a hydraulic dredge, sediments are removed and transported in the form of a slurry. The dredge head is submerged into the sediment, and a hydraulic pump provides suction to the dredgehead and propels the sediment slurry through a pipeline to the receiving area, generally a lagoon or a CDF. Some hydraulic dredge heads have been specifically developed to reduce resuspension of sediments at the point of dredging. Hydraulic dredges are also routinely used in the U.S.

Sediment Disposal

The Toxic Substances Control Act (“TSCA”) regulates the disposal of PCBs, including the handling, transport, and treatment of sediment or treatment residues that contain PCBs in concentrations of 50 ppm or more.¹⁴ TSCA regulations identify three disposal alternatives for these PCB-contaminated sediments: (1) incineration; (2) disposal in a licensed chemical waste landfill; or (3) other disposal alternative accepted by the U.S. EPA Regional Administrator.

EPA Region V has authorized WDNR to dispose of PCBs at concentrations up to 500 ppm in special state-licensed Wisconsin landfills. This authorization expires in January 2000, unless renewed. The state-licensed landfills are subject to design and operational requirements that are more stringent than those under TSCA. To dispose of PCBs in concentrations greater than 50 ppm in the state-licensed landfills, the landfill owners must also obtain approval from the State.

To date, no existing landfill owner has sought approval for disposal of PCBs at concentrations greater than 50 ppm. In fact, two of the three counties bordering the Lower Fox River, Outagamie and Winnebago, have passed local ordinances barring such disposal in municipal landfills. Some private landfill operators, however, have shown interest in constructing new landfills that would meet the more stringent state requirements and be approved for disposal of sediments containing PCBs in concentrations from 51 to 500 ppm under TSCA.

EPA has indicated that the most cost-effective way of disposing of PCB-contaminated sediment would be in a landfill close to the Lower Fox River. It would cost about \$500 per ton to ship contaminated sediments to a Utah disposal site, compared to \$40-50 per ton to dispose of sediments in a Wisconsin landfill. Landfill disposal of 60,000 cubic yards of sediments at a Wisconsin landfill would cost an estimated \$3 million. In comparison, incinerating the same amount of sediments would cost an estimated \$15 to \$50 million, and disposal in an out-of-state federally licensed hazardous waste landfill would cost an estimated \$50 to \$55 million.¹⁵ The sediment disposal question could linger for decades according to Outagamie County Executive, Ronald Van De Hay. “I think it’s like a James Michener novel. We’re only on page 200 of an 800-page novel.”¹⁶

¹⁴ 15 U.S.C.A. 2601; 40 CFR 761.

¹⁵ Milwaukee Journal, September 22, 1994.

¹⁶ Business Journal of Milwaukee, November 5, 1994.

The Fox River Coalition

As noted above, in 1992 the Fox River Coalition (the “Coalition”) agreed on a voluntary basis to investigate the PCB contamination, form a technical workgroup to address various cleanup issues, and form a finance workgroup to seek a mix of public and private cleanup funds. In pursuit of these objectives, the Coalition took the following actions from 1992 to August of 1994:

- examined all existing data on over 30 miles of river, identifying four priority cleanup sites;
- assisted in data collection to characterize an additional 7 miles of river;
- reviewed contractor proposals and commissioned the negotiation of contracts for RI/FS work; and
- raised \$650,000 from industry, POTWs, county governments and the State to fund RI/FS work at priority sites.¹⁷

In July 1994, the Fox River Coalition approached the Army Corps of Engineers with a request for \$30 million and technical assistance.¹⁸ In support of this funding request, Bruce Baker, Director of Water Resources Management at DNR, testified before the House Committee on Public Works and Transportation Subcommittee for Water Resources on July 26, 1994. Mr. Baker called the Fox River Coalition a “model of regional cooperation between Counties, municipalities, sewerage treatment facilities, industry, environmental advisory groups and state government” with a mission to “develop a process for private/public participation in determining cleanup levels, cost-effective methods, funding mechanisms and timetables for contaminated sediment remediation in the Fox River.” WDNR anticipated that it would manage the cleanup program, funded in part by the Corps of Engineers. A spokesman for WDNR said that “industry would be asked to kick in the lion’s share” of the cleanup costs to avoid Superfund liability.

Republican Representatives Thomas Petri and Toby Roth of Wisconsin supported the \$30 million request, saying it would be easier and faster to fund the cleanup through a combination of Federal and Coalition funds, rather than to sue the paper companies for the money. The Congressmen argued that not all the PCB contamination in the Lower Fox River could be linked to the mills. Municipalities and other industries along the river also caused PCB pollution. The funding request, however, was denied.

PRPs’ Efforts to Amend Superfund

In October of 1995, Carol Foster, Manager of Government Relations for Chesapeake Corporation, testified before the House Subcommittee on Commerce, Trade and Hazardous

¹⁷ Testimony of Carol Foster, Chesapeake Corp., before the House Subcommittee on Commerce, Trade and Hazardous Materials, October 26, 1995.

¹⁸ Superfund Week, August 12, 1994.

Materials, to voice the company's support for certain "refinements" of the natural resource damage provisions under Superfund. (Chesapeake purchased PRP, Wisconsin Tissue Mills, in 1985.)

Foster noted that the current natural resource damage program being implemented by EPA invited "piling on of liability" with little certainty as to environmental outcome and with no insurable cap on liability. Foster requested that CERCLA be amended to expressly bar retroactive damages and to clarify that the existing \$50 million cap on damages applies to "contamination flowing from the site which is the cause of the contamination" (and not to each daily release). Finally, citing Wisconsin Tissue's efforts to move forward with a voluntary cleanup of the Fox River, Foster asked that voluntary cleanups be allowed to move forward unhindered by CERCLA natural resource damage actions, if a majority of trustees concurred.

In her testimony, Foster explained that when PCB contamination was discovered in the Fox River in 1992, and the paper mills were suspected as a source of the PCBs, the paper mills, local governments, and the WDNR naturally joined together to create the Fox River Coalition. Foster's written testimony noted that Governor Thompson, in a letter to House Speaker Newt Gingrich, stated that "the Wisconsin Department of Natural Resources has characterized this public/private approach as unprecedented and has noted that matters have moved forward with a velocity not seen in more typical situations marked by litigation." Foster complained that despite the progress being made voluntarily, the F&WS had not been supportive of the Coalition's approach and that the formal natural resource damage assessment ("NRDA") process being pursued by the F&WS could result in the dissolution of the Coalition.

Later in July 1997, during the House Appropriations Committee markup of the fiscal 1998 budget bill for EPA, Representative Mark Neumann (R-Wis.) offered an amendment to Superfund that would require EPA to obtain approval from the governor of an affected state, prior to listing a site on the National Priorities List. Rep. Neumann explained that he was concerned that EPA would step in —without the State's approval— and list the entire Fox River as a federal Superfund site. Neumann noted that the State of Wisconsin already had a commitment from the paper companies to provide \$10 million for remediation of the river, and that cleanup was ready to begin. According to Neumann, the State did not want the cleanup project delayed by the overlay of Federal Superfund requirements.¹⁹

Representative David Obey (D-Wis) objected to Neumann's amendment, saying the proposed Superfund amendment should be considered by the House Commerce Committee during work on legislation for the overall reform of the Superfund law. To reach consensus, Obey offered an amendment that would bar EPA from listing a site on the NPL without governor approval until April 1, 1998. It was believed this deadline would give the WDNR and EPA more time to iron out their differences.²⁰

¹⁹ Daily Environment Report, News, July 9, 1997.

²⁰ Id.

After debate, the House Appropriations Committee defeated the Neumann amendment, even with the Obey concession, in part because the language could have applied to all 50 states.

Voluntary Cleanup Agreement Between WDNR and the PRPs

In January 1997, the DNR and seven paper mills entered into a written agreement “to investigate claims that the United States and the State have asserted against the Companies for natural resource damages and to pursue a negotiated settlement of all claims of any kind whatsoever under either federal or state statute or common law among the State, the United States, and the Companies relating to the release of PCBs and other hazardous substances to the Lower Fox River.” The objectives of the agreement are:

. . . (1) to begin certain plans, studies or activities in the Lower Fox River/Green Bay area that will improve natural resources and will serve as a basis for evaluating certain sediment management techniques; (2) to establish a one-year “time out” from litigation, including tolling of limitations periods and forbearance from litigation; (3) to establish a mechanism for collaborative natural resource damage (“NRD”) assessment planning or activities in the Lower Fox River/Green Bay area; and (4) to establish a framework for negotiations, leading to settlement of the Claims.

Section III. B. of the voluntary agreement notes that State and Federal natural resource trustees have been “unable to reach agreement on their respective roles . . .” Pursuant to 43 CFR § 11.32(a)(1), the State “has asserted and will continue to assert trusteeship authority over all State Natural Resources.” The agreement further states that the State will act as the “lead authorized official pursuant to 43 CFR § 11.32(a)(1)(ii)(A) for all State Natural Resources, except for resources located on lands or waters subject to the administrative jurisdiction of a federal agency.” The State claims in the agreement that it has authority to assess and litigate natural resource claims for which there is no overlapping trustee jurisdiction. With regard to resources subject to overlapping trustee authority, the State asserted that as lead authorized official, it has “authority to act as final arbitrator of disputes if consensus among the authorized officials cannot be reached regarding the assessment of natural resource damage claims.”

Section VI of the voluntary agreement contains a tolling provision and a standstill agreement. Statutes of limitations for natural resource damage claims under CERCLA and the federal Clean Water Act were tolled, as well as claims under the State’s toxic cleanup law and common law nuisance. As to the standstill agreement, the parties agreed not to start or pursue litigation against each other on any of the tolled claims during the term of the agreement.

The PRPs committed to contribute \$10 million over the next two years to conduct resource assessment and restoration for the Lower Fox and Green Bay, “subject to the

oversight of the WDNR.” The PRPs did not reveal the amount of money each pledged to contribute. Referring to the State-industry collaborative effort, Dennis Hultgren of Appleton Papers, Inc., said “It beats litigation.”²¹

The planned work includes remedial dredging pilot projects for two areas of the Fox River: Deposit N in Kimberly and a second deposit near the DePere dam. The cleanup project on Deposit N is being funded by DNR and EPA. The demonstration project in an area downstream of the DePere Dam near the Fort Howard Corp. is being conducted by seven PRPs. The dredging pilot projects would dispose of an estimated 10% of the PCB contaminated sediments in the river. The PRPs hope that the pilot dredging projects will provide useful information about the effectiveness of potential cleanup technologies.

F&WS Assesses Natural Resource Damages

In the early 1990’s, the F&WS, in conjunction with co-trustees, the Oneida and Menominee Tribes, began evaluating damage to natural resources caused by the PCB contamination, with the goal of restoring fish and wildlife resources, and compensating the public for their past and future lost use. The Menominee and Oneida Tribes asserted trustee status based on the fact that birds and fish contaminated by Lower Fox PCBs migrate onto nearby Indian lands. Though the F&WS invited DNR to participate in the assessment work as a co-trustee, DNR declined the invitation.

After the coordinating trustees invited the PRPs to conduct the assessment and the PRPs declined, the trustees began assessing natural resources damages themselves, in accordance with the procedures laid out in the Department of Interior’s (“DOI”) regulations codified at 43 CFR Part 11. On May 26, 1994, the participating trustees completed a preassessment screen in which they determined that a successful damage claim was reasonably probable and that assessment of damages should proceed. Next, the trustees prepared an Assessment Plan, in which they determined that a Type B damage assessment should be conducted.

In August of 1996, the F&WS distributed its “Assessment Plan: Lower Fox River/Green Bay NRDA” for public review and comment. The assessment area covered by the plan includes the Lower Fox, Green Bay, Lake Michigan, and other areas containing resources potentially damaged by the Lower Fox PCB contamination. This assessment area includes many plant, fish and wildlife species, including commercial and recreational fishing stocks, migratory birds, threatened species, anadromous fish species, and piscivorous mammals such as otter and mink. Trust resources may be located adjacent to or near the affected water bodies.

The trustees will calculate the amount of money sought for compensation for injuries to natural resources during the upcoming damage determination phase of the assessment. Under DOI regulations, the measure of damages is defined as the cost of restoration, rehabilitation, replacement, and/or acquisition of equivalent natural resources and the services those resources provide. Put another way, the natural resource damages are the residual

²¹ Milwaukee Journal Sentinel, January 31, 1997.

damages left after the cleanup is completed, plus the value of past and future lost uses of the resources. For federal Superfund sites, the “Report of Assessment” containing the damage calculation would generally be issued shortly after EPA issues a Record of Decision (“ROD”) selecting the final remedial response action for the river.

In December 1996, the F&WS notified the seven PRPs that it planned to assess and calculate natural resource damages under CERCLA. Janet Smith, a F&WS supervisor in Green Bay, said the Agency was looking at the paper mills first, but that more PRPs were likely to be identified eventually.²² Soon after notifying the seven paper mills, the F&WS entered into a tolling and standstill agreement with the seven mills regarding potential damage claims under CERCLA. The parties have periodically renewed this tolling agreement since then. After the State and PRPs entered into their voluntary cleanup agreement on January 31, 1997, the Secretary of the Interior, Bruce Babbitt, and EPA Administrator, Carol Browner, wrote a joint letter to Governor Thompson expressing their disappointment that the State and the PRPs had entered into an agreement “without input from, and to the exclusion of, the other trustees or the public.” The federal agency heads stressed that they preferred “for all the trustees to act together on behalf of all of the resources, rather than attempting to allocate resources among trustees.”

To aid its factual investigation, on July 1, 1997, the F&WS issued CERCLA information requests under section 104(e) to entities that may have relevant information regarding PCB releases to the Lower Fox and Green Bay.

EPA’s Proposed NPL Listing

In a June 30, 1997 letter to Governor Thompson, Acting Regional Administrator for EPA Region V, David Ullrich, asked the Governor to concur in EPA’s plan to list a 39-mile stretch of the Fox River on the NPL. In April 1997, EPA had prepared a preliminary HRS scoring package for the Lower Fox River, the results of which indicated that the river will score higher than 28.5. Other similar sites have received HRS scores of 54.66 (Hudson River), 36.41 (Kalamazoo River), and 33.79 (Sheboygan River). Ullrich explained in his letter that the planned NPL listing would supplement the natural resource damage assessment being conducted by the F&WS and cooperating trustees — the NPL listing would focus on actual cleanup of the river, while the NRDA would focus on quantifying residual damage to natural resources.

In his July 3, 1997 reply to EPA, Governor Thompson strongly opposed listing the Lower Fox on the NPL. Governor Thompson said that past experience with other EPA Superfund sites involving PCB contaminated sediments showed that when EPA gets involved “the cleanup takes longer, costs more and leaves the sediment unacceptably dirty.” The Governor noted that the State and the paper companies have agreed to negotiate a permanent cleanup agreement by February 1, 1998, and that the State has not given up its own legal recourse and will initiate legal action if a final agreement is not reached.

²² The Capital Times, April 21, 1997.

Bruce Baker, the Deputy Administrator for Water at WDNR, noted that EPA intervention and listing of the river on the NPL would slow down the existing cleanup process. “The way I like to analogize it is that we were already traveling 50 miles an hour down the road and the EPA is trying to jump in and we hope they don’t slow us down.”²³

“You can’t slow down something that isn’t moving” was the response from Brett Hulsey, the Great Lakes program director for the Sierra Club in Madison. “Governor Thompson saying we can clean this up on our own is like the Russians saying we can fix the Mir space station on our own. The DNR has been working on PCB contamination of the river for 10 years, [but] the state has not cleaned up one pound of PCBs from the Fox River.”²⁴ (At a book signing for the Governor’s new book, “Power to the People” in late 1996, Hulsey handed the Governor a copy of his book and asked him to sign it “Toxic Tommy.”²⁵)

A policy specialist with the Sierra Club, Emily Green, stated that “We believe that federal involvement through Superfund at this point is really the sort of stick that’s going to get the (cleanup) process moving. . . . We believe the (voluntary process) has been fairly easy on the responsible parties. . . . Many people would not argue that DNR is fairly politicized right now, and the lack of progress does not do anything to reassure us that they really want to clean up the river.”²⁶ Rebecca Leighton-Katers, Executive Director of the Clean Water Action Council, with 350 local members, reportedly favors EPA oversight of the river cleanup because WDNR is not as open to public input and is “too cosy with polluters.”²⁷

The Governmental Entities’ Memorandum of Agreement

On July 11, 1997, representatives of the WDNR, three federal agencies, and two Indian tribes signed a Memorandum of Agreement Regarding Restoration of the Lower Fox River, Green Bay, and the Lake Michigan Environment (“MOA”). The federal agencies that signed the MOA are the U.S. EPA, the National Oceanic and Atmospheric Administration (“NOAA”), and the U.S. Department of the Interior. The two Indian tribes that signed the MOA are the Menominee Indian Tribe of Wisconsin and the Oneida Tribe of Indians of Wisconsin.

The MOA, entered into shortly after EPA announced its intention to list the Fox River on the NPL, has been described as an agreement by the state and federal governmental agencies not to fight in public. Under the agreement, rather than taking individual and independent actions, each of the governmental entities promised to coordinate and consult with each other regarding response and restoration activities and PRP settlement negotiations. The entities also agreed to *consult* with one another concerning the use of funds available under the January 31, 1997 voluntary agreement with the PRPs, but WDNR retained for itself sole discretion regarding the actual use of those funds.

²³ Business Journal of Milwaukee, August 1, 1997.

²⁴ Id.

²⁵ The Capital Times, November 2, 1996.

²⁶ Green Bay News Chronicle, June 30, 1997.

²⁷ Daily Environment Report, News, Monday, August 25, 1997.

In effect, the MOA aimed to coordinate three ongoing cleanup processes to avoid duplication and to speed up the cleanup effort — the Fox River Coalition’s voluntary work, the F&WS assessment of natural resource damages, and EPA’s planned investigation and cleanup under CERCLA.

With regard to the PRPs reaction to the proposed NPL listing and MOA, Dennis Hultgren, Director of Environmental and Public Affairs at Appleton Papers, Inc., responded to a column printed in the Green-Bay News-Chronicle, by submitting his own letter to the editor that defended the PRPs voluntary cleanup agreement forged with the State:

. . . It takes a great leap of faith to go from the EPA announcing its intent to list the Fox River as a Superfund site to the river actually being “cleaned up.” To assume that any party has all the answers, including the EPA, is making light of a complex matter.

* * *

A group of seven present and former paper companies in the Fox Valley has pledged to spend \$10 million to test the effects and feasibility of large-scale dredging and other techniques. These demonstration projects will help determine the best approaches to improving the Fox River’s ecosystem by providing real, scientific data over the next year and a half and will be a basis on which to develop a full response plan.

We believe it is disingenuous to characterize the paper industry as “perpetrators of pollution,” “sitting around holding hands” and “yukking it up” with municipalities. Bear in mind that the paper companies did nothing illegal; in fact, the industry was doing the right thing by recycling waste paper, a practice encouraged at the time by environmental groups as well as state and federal agencies.

When PCBs were in use in the 1950s and ’60s, their potential health risks were unknown. At this time, the only concrete action on the horizon for the Fox River is being paid for, in large part, by those same companies – unlike at a large number of Superfund sites that have been under the control of the EPA for years.²⁸

Hultgren also objected to the designation of the river as a Superfund site based on the ground that results from the two pilot dredging projects being conducted under the voluntary agreement with the State would not be available until late in 1998. EPA, however, planned to move ahead with the development of a comprehensive cleanup plan before then. Therefore, Hultgren argued, EPA and the State would reach agreement on a cleanup plan for the river without knowing the results of the demonstration dredging projects. In Hultgren’s view, the MOA *presumed* that dredging of the sediments was the best cleanup option, even though dredging could arguably make the environmental contamination worse.²⁹

²⁸ The Green Bay News-Chronicle, August 7, 1997.

²⁹ Business Journal of Milwaukee, August 1, 1997.

Objections to the MOA and the EPA's possible lead role under Superfund were summarized in an editorial appearing in the Green Bay Press-Gazette on July 11, 1997, which made the following points:

- EPA efforts on similarly contaminated sites have been long, costly, contentious, and have produced indifferent environmental results.
- Designation of the Fox River as an NPL site will brand the river in a negative and misleading way.
- EPA lacks credibility based on recently revealed evidence that shows the Agency used fraudulent documents in cases dealing with Indian water rights.³⁰
- Problems such as the PCB contamination in the Lower Fox are best solved at the local level.

On July 22, 1997, Fleishman Hillard, a public relations firm hired by the Fox River Group, issued a one page statement on behalf of the seven paper mills. In the statement, the PRPs strongly recommended that the pilot dredging projects be implemented and the results of the projects evaluated before any decision is made on how to cleanup the Lower Fox River.

The paper mills have 60 days to formulate a response to EPA's special notice letters. Given the circumstances, what should their course of action be?

Case Study Exhibits

- Exhibit A: Chronology of Key Events
- Exhibit B: Figure 1.1-2, Fox River RI Target Deposit Areas
- Exhibit C: Four Representative Remediation Scenarios
- Exhibit D: Table 7. Fish Tissue PCB Concentration Endpoints
- Exhibit E: January 31, 1987 Agreement Between the State and Companies
- Exhibit F: June 17, 1997 letter from EPA Region V to Governor Thompson
- Exhibit G: July 3, 1997 letter from Governor Thompson to EPA Region V
- Exhibit H: July 11, 1997 Memorandum of Agreement
- Exhibit I: Friday, July 11, 1997 Milwaukee Journal Sentinel article
- Exhibit J: July 22, 1997 Statement from Seven Fox River Companies
- Exhibit K: Selected statutory and regulatory provisions

³⁰ This remark refers to an incident in which EPA employees reportedly created documents "after the fact" to support a decision already made by EPA that a Tribe was eligible for treatment as a state under the Clean Water Act.