

River Cleanup Comes Down Home Stretch

By Susan Pastor, U.S. Environmental Protection Agency

As the U.S. Environmental Protection Agency and Wisconsin Department of Natural Resources monitor the last portion of the Lower Fox River cleanup from DePere to Green Bay, one could say they are literally coming down the home stretch.

“This is the final stretch of river to be dredged, and we are still shooting to have it completed by 2017,” said EPA Remedial Project Manager Jim Hahnenberg.

Although the other three portions of the river were cleaned up in eight years, this last portion is taking the longest to complete because it is where the majority of the PCB-contaminated sediment lies, according to Hahnenberg.

“The sediment is thicker as you get closer to the bay,” he explained. “The river gets deeper as you go downstream. The center channel has been artificially deepened by the navigational dredging done by the Army Corps of Engineers over the last 100 years or so (see related article on page 3). This creates deeper areas, which, in turn, creates another area where sediment is deposited.”

All dredging this year is being done south of the Georgia-Pacific plant in Green Bay. “We prefer to work upstream to downstream to eliminate recontamination of areas that may already be completed downstream,” said Hahnenberg.

Federal Appeals Court Affirms District Court Ruling; Cleanup Continues

By Susan Pastor, U.S. Environmental Protection Agency

NCR Corp., one of the companies responsible for PCB contamination in the Lower Fox River, must continue dredging this year, according to an August 3 ruling from the United States Court of Appeals for the Seventh Circuit. The U.S. District Court for the Eastern District of Wisconsin granted a motion for preliminary injunction and ordered the company to remove and clean up at least 660,000 cubic yards of contaminated sediment in 2012.

More information can be found in the court’s ruling, “Appeal from the United States District Court for the Eastern District of Wisconsin, No. 10-C-910—William C. Griesbach, Judge; Argued June 4, 2012—Decided August 3, 2012.” This document is posted at www.epa.gov/region5/cleanup/foxriver.



PHOTO COURTESY OF THE BOLDT TEAM

Field crew measures the sample depth.

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EPA, DNR Review New Landfill Requests

By Susan Pastor, U.S. Environmental Protection Agency

The U.S. Environmental Protection Agency and Wisconsin Department of Natural Resources have worked independently to review applications that would allow pre-treated, PCB-contaminated sediment dredged from the Lower Fox River to be taken to an in-state solid waste landfill.

Waste Management of Wisconsin submitted applications to both agencies so its Ridgeview Recycling and Disposal Facility in Whitelaw, near Manitowoc, can accept the river's sediment starting this year.

Sediment with "higher levels" of PCBs is currently being trucked to a licensed facility near Detroit. NCR Corp., one of the companies doing the cleanup under EPA and Wisconsin DNR oversight, has been looking for an existing Wisconsin landfill that has enough space to accept the sediment. If Ridgeview is approved, the last segment to be cleaned up from DePere to Green Bay would go faster while keeping costs down, according to Jim Hahnenberg, EPA remedial project manager. Contaminated sediment with lower levels of PCBs is accepted in-state at the Veolia Hickory Meadows landfill in Chilton.

According to Hahnenberg's EPA colleague, Environmental Scientist Karen Kirchner, sediment with PCB levels of at least 50 parts per million is filtered to remove the water after it is dredged from the river. Solid material remaining on the filter is referred to as "filter cake."

"The dredging operations remove sediment with PCBs greater than or less than 50 ppm, she explained. Once it is processed, the PCB levels of the filter cake are below 50 ppm and can be taken to Ridgeview," she explained. "If any of the filter cake has PCB levels of 50 ppm or higher, it will continue to go out of state."

Kirchner, who works in EPA's Land and Chemicals Division, is one of the reviewers. "Because that waste originally contained PCBs at or above 50 ppm, it falls under the federal Toxic Substances Control Act and has to be taken to a landfill licensed to accept it," she said.

Wisconsin DNR staff issued a "plan of operation modification" to WMWI on July 17 so Ridgeview will be able to accept sediment dredged from the Lower Fox River. The state's modification is contingent on EPA's approval to WMWI.



PHOTO COURTESY OF WASTE MANAGEMENT OF WISCONSIN

Treated sediment from the Lower Fox River may soon be taken to this Wisconsin landfill.

The Ridgeview site is the only landfill being considered because an application was submitted to the TSCA program, where Kirchner works, in the Agency's Chicago office. In conjunction with the state's application, WMWI is also required to ask EPA for a "risk-based disposal approval" which would allow processed PCB-contaminated sediment of at least 50 ppm to be taken from the Lower Fox River to a new area, referred to as a "cell," inside the currently operating landfill. No other applications have been received. EPA's TSCA program does not solicit sites for the disposal of PCB-contaminated material. EPA only evaluates and responds to applications it receives.

"In this case, our approval would coincide with Wisconsin DNR's decision regarding the modification," Kirchner explained. "The Agency's decision is based on whether bringing this material to Ridgeview would pose a danger to people or the environment. If it did, EPA wouldn't approve the request," Kirchner said.

EPA let the public know about WMWI's requests and held a comment period from July 23 to August 21. Pertinent documents are available for review at the Manitowoc Public Library.

Formal documents on the risk-based approval process and responses to public comments will be available to the public by the end of September.

For further information, go to www.epa.gov/region5/waste/tsc/ridgeview or contact Karen Kirchner toll-free at 800-621-8431, ext. 34669 or via email at kirchner.karen@epa.gov.

Army Corps Completes Dredging for 2012

By Susan Pastor, U.S. Environmental Protection Agency

The U.S. Army Corps of Engineers has completed its annual dredging project in the Lower Fox River.

After starting in Green Bay in April, the Corps worked its way southwest, dredging about three miles upstream to the Green Bay turning basin from Allouez to Ashwaubenon.

The Corps used the same equipment it used in 2010 and 2011, according to U.S. Environmental Protection Agency Remedial Project Manager Jim Hahnenberg.

“By using an environmental-type closed bucket dredge with ‘baffles and seals,’ the movement of water and mud slows down,” Hahnenberg explained. “Similar to a rubber gasket, the seal prevents contaminated water and mud from leaking through while containing the PCB-contaminated sediment that is being pulled out of the river.”

This type of bucket dredge, which is different from the Corps’ typical navigational dredge, was used so contaminated sediment wouldn’t spread. The Corps has agreed to this type of dredge so the work EPA is overseeing nearby won’t be affected.

“Both projects are being coordinated so our dredges won’t bump into theirs,” Hahnenberg continued. “We also want to make sure the Corps operates in areas of the river with generally low levels of PCBs.”



PHOTO COURTESY OF THE BOLDT TEAM

U.S. Army Corps of Engineers completes navigational dredging for 2012.

The Corps dredges this area annually to clear the waterway for boat traffic after sediment fills back in over the winter. Regular surveys are done to determine the status of areas that may need navigational dredging. These surveys show areas that may have filled in since the last Corps dredging.

The Corps is expected to return next April or May using the same techniques and equipment and be finished by the end of July, similar to this year’s schedule.



Out and About ...

By Susan Pastor

U.S. Environmental Protection Agency

The Fox River Intergovernmental Partnership is made up of U.S. Environmental Protection Agency, Wisconsin Department of Natural Resources, U.S. Fish and Wildlife Service, National Oceanic and Atmospheric Administration, Oneida Tribe of Indians of Wisconsin and Menominee Indian Tribe of Wisconsin. These partners, as well as other supporting agencies, regularly provide speakers to organizations in the Fox Valley area. The following people recently made presentations:

June

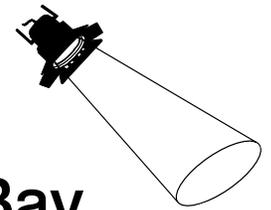
- ◆ *Betsy Galbraith*, FWS: Optimist’s Club, Green Bay; Green Bay Natural Resource Damage Assessment update.

The Fox River Current is featuring Natural Resource Damage Assessment projects in and near the Lower Fox River.

Spotlight On:

Restoring Cat Islands in Lower Green Bay

By Betsy Galbraith, Fox River/Green Bay NRDA Trustee Council Coordinator



The Cat Islands are a string of barrier islands and areas of shallow water that were key structural and habitat features of southern Green Bay. The islands were a protective barrier for the coastal wetlands along the southern shoreline and protected them from high energy and storm events. Record high lake levels in the mid-1970s to 1980s resulted in the disappearance of the Cat Islands.

Conceived over 30 years ago by local environmentalists, construction is now underway to recreate the Cat Islands. The project will construct a 2.5-mile wave barrier and access road along with 272 acres of the original island footprint. Clean dredge materials from the Lower Fox River and Green Bay will be used to rebuild the islands.

Earlier this summer, construction began on the access road and wave barrier leading to the islands. The first phase of construction will wrap up later this summer with 3,900 feet of the road being completed.

The Brown County Port and Solid Waste Department is overseeing construction and administering grant funds for the project. A local committee of representatives from federal, state, and local government agencies, citizen conservation groups, and the University of Wisconsin-Green Bay are tasked with overseeing the design for the habitat features of the islands.

Once completed, the islands will provide important habitat for a variety of fish, birds, and wildlife in lower Green Bay. The re-established islands and nearby wetlands will support nesting and rearing habitat for



PHOTO COURTESY OF BROWN COUNTY

June 29 aerial photo of Cat Island chain restoration project area (looking west).

waterfowl, shorebirds, and water birds. This includes state-endangered Common, Forster's, and Caspian terns. Other birds such as egrets, herons, and pelicans will use the shallow marsh areas that were bolstered by the island rebuilding as food sources.

The Duck Creek delta marsh and aquatic plants that once were found extensively in that area are expected to re-establish after the wave barrier is constructed. "These wetlands are important habitat for a great diversity of species – fish, shorebirds, waterfowl, and amphibians," stated Janet Smith, chair of the science and technical advisory committee Green Bay biota and habitat workgroup. "Habitat surrounding the islands will provide opportunities for fish feeding, spawning and nursery areas."

Plans are currently underway for additional construction phases to complete the remainder of the access road and

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side dikes of the west and center island over the next few years.

This is a long-term restoration project that Brown County Project Manager Dean Haen does not expect to see fully completed during his career. “After working on this project since 1999, I am excited to see the first phases of construction being initiated,” he said. “Completion of the entire project is expected to take 30-50 years and is largely dependent on construction costs and availability of dredged materials.”

The road currently being built for the Cat Island project is located at the end of Lineville Road in the village of Suamico. Due to construction activities, the public cannot access the site.

When it is done, the wave barrier should be seen from the Leo Frigo Memorial Bridge or from the air, according to Haen. “The access road was very noticeable on a recent commercial flight into Austin Straubel International Airport in Green Bay,” he added.



PHOTO COURTESY OF BROWN COUNTY

Cat Island Access Road looking north from the end the current project (Station 39+18) approximately 900 feet from shore (June 29, aerial of photo Cat Island).



PHOTO COURTESY OF BROWN COUNTY

Cat Island Access Road looking north from the end the current project (Station 39+18) approximately 900 feet from shore (July 11).

The project is a partnership among the Port of Green Bay, Brown County, U.S. Army Corps of Engineers, U.S. Environmental Protection Agency, U.S. Fish and Wildlife Service, Wisconsin Departments of Transportation and Natural Resources, Lower Fox River/Green Bay Natural Resource Trustee Council, UW- Sea Grant, UW- Green Bay, and 14 port terminal operators. Matching funds were contributed through various federal and state grant programs along with fees collected from Brown County port users.

The project was partially funded by the Lower Fox River/Green Bay Natural Resource Trustee Council using NRDA settlement dollars. The natural resource trustees are comprised of the Wisconsin DNR, Oneida Tribe of Indians of Wisconsin, Menominee Indian Tribe of Wisconsin, FWS, and National Oceanic and Atmospheric Administration.

For more information about Fox River/ Green Bay NRDA projects, contact Betsy M. Galbraith, trustee council coordinator, at betsy_galbraith@fws.gov or at 920-866-1753.

Contractor Finds Old Car On River Bottom

By Susan Pastor, U.S. Environmental Protection Agency

Survey crews for a marine contractor helped solve a 33-year-old local mystery while working in the Lower Fox River in late June.

Contractors for the paper companies cleaning up PCB-contaminated sediment were using sonar equipment to measure depths of the river bottom when they found a car submerged about 18 feet below the surface.

Lead Hydrographer Mike Wyatt for J.F. Brennan Inc. made the discovery. Responsible for global positioning system equipment and hydro survey work, Wyatt said he was back at the office several days later reviewing the data he collected when he saw something unusual. “It was during post processing when I noticed the shape of a vehicle at the bottom of the river,” he said. “Our high resolution system picked it up.”

Wyatt said he has been a surveyor for four years, however, since he had never seen anything like this, he wanted to verify his findings. “I built 3-D models at the office before notifying the police,” he stated.

Soon, police divers arrived to investigate. They pulled the old car, covered with zebra mussels, from the water and moved it to the Green Bay Metro Boat Launch and later to a secure place. The 1975 Plymouth Valiant with Minnesota license plates reportedly belonged to a man who left the car running outside an old Green Bay



PHOTO COURTESY OF MIKE WYATT, J.F. BRENNAN INC.

A 3-D image of a car sitting at the bottom of the Lower Fox River.

nightclub in 1979. When he came out later in the evening, it was gone. The theft was reported to police at the time.

The car’s transmission was apparently put in drive with a tire iron found holding down the gas pedal so it could be dumped into the river at the end of Cherry Street in downtown Green Bay.

Wyatt, who has done similar work in the Mississippi River and Great Lakes, said working in the Midwest doesn’t provide many opportunities to find sunken treasure, so “this is about as exciting as it gets.”

“I’m sure it’s there,” he added. “We just haven’t found it yet.”

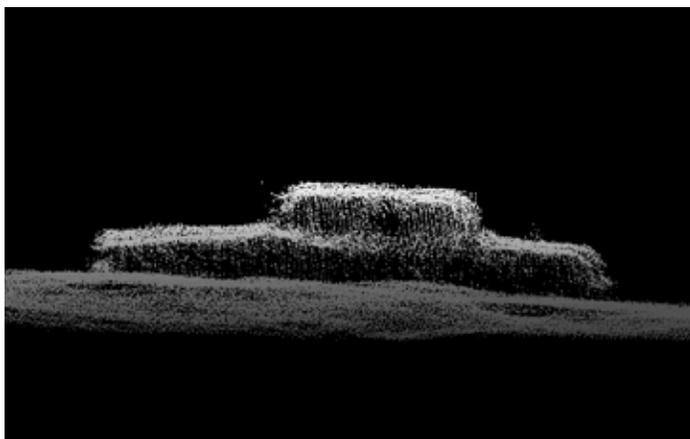


PHOTO COURTESY OF MIKE WYATT, J.F. BRENNAN INC.

A side view 3-D image of a car submerged in the Lower Fox River.



PHOTO COURTESY OF MIKE WYATT, J.F. BRENNAN INC.

Car being pulled from the bottom of the Lower Fox River.

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The area that contractors are focusing on is north of the DePere Dam. As required by an April federal court decision, 660,000 cubic yards of contaminated sediment will be dredged this year. This includes sediment with slightly higher levels of PCBs.

“Sediment with concentrations over 50 parts per million will go to a landfill licensed to accept it,” Hahnenberg continued, “while sediment under 50 ppm can continue to go to the Veolia Hickory Meadows Landfill in Chilton.”

At press time, a currently operating landfill near Manitowoc was going through the process to receive a permit to accept higher levels of PCBs (see article on page 2).



PHOTO COURTESY OF THE BOLDT TEAM

Workers take sediment samples from the Lower Fox River.

Information Available at Local Libraries

The Fox River Intergovernmental Partnership invites the public to review technical reports, fact sheets, newsletters and other documents related to the Lower Fox River cleanup at information repositories set up in the reference sections of the Wisconsin libraries listed below.

- **Appleton Public Library**, 225 N. Oneida St., Appleton; 920-832-6170
- **Brown County Library**, 515 Pine St., Green Bay; 920-448-4381, Ext. 394
- **Door County Library**, 107 S. Fourth Ave., Sturgeon Bay; 920-743-6578
- **Oneida Community Library**, 201 Elm St., Oneida; 920-869-2210
- **Oshkosh Public Library**, 106 Washington Ave., Oshkosh; 920-236-5205

In addition, fact sheets and newsletters only are maintained at the public libraries in De Pere, Kaukauna, Little Chute, Neenah and Wrightstown.

An Administrative Record, which contains detailed information upon which the selection of the cleanup plans was based, is available at:

- **Wisconsin DNR**, Northeast Regional Office, 2984 Shawano Ave., Green Bay
- **Wisconsin DNR**, Bureau of Watershed Management, 101 S. Webster St., 3rd Floor, Madison
- **Appleton Public Library**, 225 N. Oneida St., Appleton
- **Brown County Library**, 515 Pine St., Green Bay
- **EPA Record Center**, 77 W. Jackson Blvd., 7th Floor, Chicago



Check out these websites:

<http://www.epa.gov/region5/cleanup/foxriver>

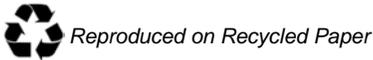
<http://dnr.wi.gov/org/water/wm/foxriver/index.html>

<http://contaminants.fws.gov/issues/restoration.cfm>

<http://www.fws.gov/midwest/nrda/index.html>



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Disclaimer: The opinions expressed in these articles are solely those of the authors and are not necessarily shared by all members of the Fox River Intergovernmental Partnership.

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