

Report Shows Lower PCB Levels In Fish, Water

By Susan Pastor, U.S. Environmental Protection Agency

PCBs in Little Lake Butte des Morts have been substantially reduced due to five years of dredging, according to a Wisconsin Department of Natural Resources report.

The Wisconsin DNR's Post-Remediation Executive Summary, dated March 29, 2011, details the success of dredging from 2004 to 2009. Walleye was used as the main indicator for human consumption. In walleye, PCB levels were down an average of 73 percent due to the sediment cleanup. Carp, bass, drum, and shad also had much lower levels of PCBs. Had natural recovery been used instead of active dredging, it would have taken as long as 15 to 20 years to achieve the same results.

According to the report, Wisconsin's current fish consumption advisories state that no more than one meal per month or no more than 12 meals per year be eaten. The report also said that sampling results from walleye collected from the lake in 2010 "are very encouraging and will be utilized in the state of Wisconsin's fish consumption advisory process."

PCBs in sediment, or mud, decreased an average of 94 percent, according to the report. It states that samples taken last year met the goals outlined in a 2002 document called the record of decision. That document spelled out the cleanup plan that was to be followed in Little Lake Butte des Morts.

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EPA, DNR Eye Completion of Cleanup from Little Rapids to DePere

By Susan Pastor, U.S. Environmental Protection Agency

With April 18 marking the start of year three for off-shore dredging in the Lower Fox River, the agencies are hopeful that 2011 will mark the completion of one more segment.

"The U.S. Environmental Protection Agency and Wisconsin Department of Natural Resources hope to complete cleanup in the stretch of river from Little Rapids to DePere," said EPA Remedial Project Manager Jim Hahnenberg. "We think this is a reachable goal."

To reach this goal, dredges are expected to work 24 hours per day, five days a week, according to Hahnenberg. "This is similar to last year," he added.

In addition to completing a second portion of the Lower Fox River/Green Bay site, work will continue



PHOTO COURTESY OF THE BOLDT TEAM

This 8-inch dredge will be used to remove PCBs from the river.

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EPA Deems Staging Site Restoration Complete

By Susan Pastor, U.S. Environmental Protection Agency

The shoreline area near Little Lake Butte des Morts where cleanup staging sites once stood has been restored to its original condition.

While cleanup was going on in the lake from 2004 to 2009, the staging sites were temporary homes for a water treatment building and a dewatering system. They also served as areas to store equipment and sand and gravel, process dredged sediment, and park vehicles.

Before dredging of PCB-contaminated sediment began in 2004, the area just south of and along state Route 441 in Menasha included an old farm as well as a Wisconsin Department of Transportation easement parcel. It also included a wetland surrounded by natural reeds and grasses. WTM I Co. and Glatfelter, the two paper companies responsible for the cleanup, used this area near the state Route 441 Bridge to house their dredging operation and sediment handling facility for about six years. After the cleanup was completed last year, the companies were required by the U.S. Environmental Protection Agency and Wisconsin Department of Natural Resources to restore the area back to its original condition.

Today, there is a wetland where the large “geotubes” used for drying out the dredged sludge were once located. The water treatment building that used to house large filters and

tanks is also gone. Most of the staging pad areas once used for sediment handling and for parking vehicles and dredges have been removed.

“It has been restored to a condition that looks as good as, or better, than when they started,” said EPA Project Manager Jim Hahnenberg. “All of the invasive species of reed canary grass were taken out, so it’s back to a more natural condition.”

The companies also removed about 18,000 cubic yards of compacted clay that had been placed there prior to installation of some synthetic liners used during the construction of the dewatering area. They also removed 11,500 cubic yards of pre-existing fill material, cut a meandering channel to connect an existing drainage ditch to the lake, graded the site to pre-existing elevations, built turtle nesting areas, and created additional wetlands on the south end of the property.

According to Hahnenberg, EPA has determined that the cleanup standards for Little Lake Butte des Morts have been met and that restoration of the staging site is complete. Further information can be found in a November 2010 document called, “Remedial Action Certification of Completion,” at www.epa.gov/region5/sites/foxriver and at the information repositories listed on page 7.



PHOTO COURTESY OF THE BOLDT TEAM

This area, formerly used for water treatment and sediment handling operations during the cleanup, is now restored to its original condition.

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downstream from DePere where larger dredges will be used (The Little Lake Butte des Morts cleanup was completed in 2009). Mud pulled from the river will be taken to the same disposal facilities as last year.

“Since most of the sediment dredged this year will have lower PCB levels, it can be trucked to Veolia Hickory Meadows Landfill in Chilton,” said Hahnenberg. “Material with higher concentrations will go to another licensed facility.”

Like last year, Appleton Papers, Inc. and NCR Corp., the companies doing the cleanup, are coordinating traffic with local municipalities as PCB sediment is trucked through their communities.

In the past, company representatives met with local officials to go over the hauling schedule, summer school dates, and school zone traffic speeds. Special attention to safety will continue.

All dredged sediment will still be pumped into the dewatering facility through a pipeline. Then, the water will be squeezed out by special equipment called a plate and frame press. The remaining dried sediment will be loaded on a truck so it can be properly disposed of.

It is expected that cap and sand cover work, which started in 2009, will also resume this year. These techniques involve placement of a layer of sand or a layer of sand covered by stone.

If the Little Rapids to DePere stretch is completed this year, that will leave only one more reach in need of active cleanup – DePere to Green Bay. Two other parts of the project, Appleton to Little Rapids and Green Bay, will have ongoing monitoring programs because they are expected to recover naturally. Work is expected to continue through mid-November, weather permitting.



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:

January

- ◆ *Jim Hahnenberg, Susan Pastor and Kathy Clayton, EPA:* Schrieber & WPS Einstein Project Science Expo, Green Bay; Lower Fox River cleanup, Superfund emergency response, and general information.
- ◆ *Betsy M. Galbraith, U.S. FWS:* Wisconsin Department of Natural Resources Wildlife Statewide Management Meeting, Sheboygan; A Decade of Restoration – The Lower Fox River/Green Bay Natural Resource Damage Assessment.

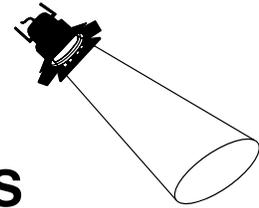
February

- ◆ *Jim Hahnenberg, EPA:* DePaul University Environmental Class, Chicago; Lower Fox River cleanup and Superfund process.

The Fox River Current is featuring natural resource damage assessment projects in and near the Lower Fox River.

Spotlight On:

Nesting Platforms for Forster's Terns



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

Forster's Terns were once considered common summer residents in the Green Bay area. They relied on the coastal marshes, nesting on the ground or within floating clumps of vegetation near the open water. Their numbers dwindled drastically over the last century due to contaminants and habitat loss. The bird has been listed as a state-endangered species since 1979.

Today, Forster's Terns are seen sporadically on Green Bay in late spring and summer. No nesting attempts have been documented in recent years. There are only a few small nesting populations of Forster's Terns remaining on inland lakes in central and southern Wisconsin.

Recognizing the decline of this important species, the Wisconsin Department of Natural Resources spearheaded a project to construct 16 PVC platform "clusters" during the 2010 nesting season within the Green Bay West Shore Wildlife Area. The platforms were constructed in the Peshtigo Harbor, Oconto Marsh, and Sensiba Units.

The project was funded by the Lower Fox River/Green Bay Natural Resource Damage Assessment Trustee Council using settlement dollars. The ultimate goal of the project is to restore a nesting population of an injured species to the bay.



PHOTO COURTESY OF MARIE READ

Forster's Terns breed primarily in marshes along the coasts during the winter.

"Re-establishment of nesting colonies will significantly help in the recovery of this species," said John Huff, Wisconsin DNR wildlife biologist who oversees habitat restoration projects on the West Shore.

Typical nest sites are found in good-sized wetlands or marshes containing large areas of vegetation such as cattail, bulrushes, giant reed grass, arrowhead, or bur-reed. Nests are located with open water nearby

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and can be placed on muskrat houses, near cattail bases, on floating vegetation mats, or on dredge spoil islands.

Each cluster contains five or six, 25 square-foot platforms arranged around native vegetation in an emergent marsh. The platforms were placed in areas where the Forster's Tern had attempted to nest in past years.

The floating platforms are water-permeable to support the nests that Terns will construct from native vegetation. Along with the nesting platforms, 18 Tern decoys and two audio players were also purchased to attract them. The decoys have been successfully used in other Tern nesting projects and audio players broadcast the recorded calls of Terns.

In 2010, the three nesting sites were monitored for Tern activity throughout the late spring/early summer nesting season. Unfortunately, no Terns nested on the platforms and very few were seen on Green Bay during 2010.

Wisconsin DNR staff will use what they learned last field season to refine their techniques for the upcoming 2011 field season. Specific improvements to be made this year include decoy placement, effective use of the audio devices to transmit Tern calls, and sturdiness of the platforms when used by other wildlife species. In the future, Huff said he hopes to see Tern chicks hatching from the

nesting structures. "That will be the ultimate success for this species," he declared.

The Green Bay West Shore Wildlife Area has 11 units between Green Bay and Marinette. Each unit has a map and description on the Wisconsin DNR website. For more information, go to www.dnr.wi.gov/org/land/wildlife/wildlife_areas.

The natural resource trustees are comprised of the Wisconsin DNR, U.S. Fish and Wildlife Service, Oneida Tribe of Indians of Wisconsin, Menominee Indian Tribe of Wisconsin, and National Oceanic and Atmospheric Administration.



PHOTO COURTESY OF JOHN HUFF

A decoy is used to attract adult Forster's Terns for nesting.

Army Corps To Continue Green Bay Dredging

By Susan Pastor, U.S. Environmental Protection Agency

Plans are underway for the Army Corps of Engineers to resume dredging in the Lower Fox River near three Green Bay area highway bridges.

The Corps will be in Green Bay dredging near the Interstate 43 bridge and the “railroad bridge” near the Georgia-Pacific plant. In addition, dredging is also planned near the U.S. Highway 172 bridge which runs from Allouez to Ashwaubenon.

According to U.S. Environmental Protection Agency Remedial Project Manager Jim Hahnenberg, dredging is expected to begin this spring. “In our discussions with the Corps, we indicated that, given last year’s good results and low PCB concentrations in their dredge areas, they will not need to do turbidity monitoring to measure water clarity this year,” he explained. “However, they will again be using special equipment.”

This equipment will include a mechanical environmental-type closed bucket dredge with “baffles and seals.” A

baffle is a device that slows down movement of the water and mud. The intent of the seal, similar to a rubber gasket, is to prevent contaminated water and mud from leaking. “They help contain the PCB-contaminated sediment during removal,” said Hahnenberg.

Unlike navigational dredges, this type of bucket dredge shouldn’t stir up the sediment. “When we dredge, the idea is to remove contaminated sediment while releasing as little of the PCBs as possible,” Hahnenberg continued. “This reduces the potential for re-contamination in areas outside the dredging area.”

The work is detailed in a 2010 “interagency agreement” between EPA and the Corps. The agreement, as well as other related documents, is available at the information repositories listed on page 7 and at www.epa.gov/region5/sites/foxriver.



PHOTO COURTESY OF THE BOLDT TEAM

Army Corps dredging equipment uses a “bucket” device to contain PCBs.

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Wisconsin DNR Wastewater Engineer Gary Kincaid, who has worked on the Lower Fox River project for 14 years, said these results are unprecedented nationally. "They confirm the record of decision was on target in the type and level of cleanup that was needed," he added.

PCBs were also much lower in the water column after the cleanup was completed.

"We are very pleased that PCB levels have decreased even faster than expected in fish and water in this part

of the river," Kincaid added. "We look forward to finishing the cleanup plan in the remainder of the river."

Although the companies responsible for the cleanup, WTM I Co. and Glatfelter, finished the work nearly two years ago, it will take several more years to gain a full understanding of the cleanup's effects. This will be accomplished as more information is gathered through a long-term monitoring program.

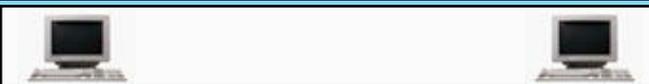
To view the report, go to <http://go.usa.gov/bag>.

Information Available at Local Libraries

The Intergovernmental Partners invite 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 local libraries listed below.

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



Check out these Websites:

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

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

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

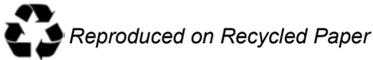
<http://www.fws.gov/midwest/nrda/index.html>

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

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



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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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