

EPA, DNR Oversee Completion of Cleanup From Little Rapids to DePere

By Susan Pastor, U.S. Environmental Protection Agency

After three years of active dredging and capping, the cleanup of PCB-contaminated sediment in the middle stretch of the Lower Fox River is complete.

In mid-November, the U.S. Environmental Protection Agency and Wisconsin Department of Natural Resources declared this stretch, which extends from Little Rapids to DePere, clean. The area, also referred to as Operable Unit 3, had 236,000 cubic yards of sediment removed and 90 acres capped or covered. According to EPA Remedial Project Manager Jim Hahnenberg, this dredged volume equals a football field about 14 stories high (or about 6,400 truckloads) and nearly 800 football fields by area for the portions of the river that were capped or covered.



PHOTO COURTESY OF THE BOLDT TEAM

Stone is “flung” into the water to settle and form a cover at the river bottom.



PHOTO COURTESY OF THE BOLDT TEAM

Equipment used to transport stone for sediment capping.

“This is still the largest river cleanup in the country,” he said.

Sediment with low levels of contamination was taken to a landfill in nearby Chilton while sediment with higher levels was taken to a licensed facility near Detroit. “For some of the spots we dredged, we also put sand covers over the ‘residual’ areas,” Hahnenberg explained. “In some instances, these were areas with small amounts of PCBs that were difficult to reach with our dredge.”

Appleton Papers and NCR Corp., the companies responsible for the contamination, conducted the cleanup under EPA and Wisconsin DNR supervision.

The Truth About Monitored Natural Recovery

By Susan Pastor, U.S. Environmental Protection Agency

While many people look at monitored natural recovery as a limited-action cleanup option, it is often used at Superfund sites around the country. This approach is sometimes used on its own, but is also commonly part of a combination of approaches at a site.

Commonly referred to as “MNR,” this technique has been included in about a dozen Superfund cleanup plans involving contaminated sediment. As part of its typical evaluation of cleanup options, the U.S. Environmental Protection Agency seriously considers MNR. Before selecting MNR, EPA looks at many issues including the likelihood of people coming into contact with the sediment, contaminant levels, and ability of contaminants to affect plants and animals. EPA also estimates how long it will take for PCB levels to be low enough so human exposure is

minimal. In certain areas of the Lower Fox River, PCBs are expected to decline over time due to natural processes so MNR is an acceptable approach.

According to EPA Remedial Project Manager Jim Hahnenberg, MNR was selected for the reach of river that runs from Appleton to Little Rapids.

“We selected monitored natural recovery in this area for several reasons,” he explained. “For starters, the PCB levels are generally lower. Also, it is difficult for cleanup crews to access due to the many dams and locks.

Since some work was completed in the middle portion of that reach, MNR is part of the cleanup. “Active measures have been taken in the areas having the highest PCB concentrations,” Hahnenberg continued.

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PHOTO COURTESY OF THE BOLDT TEAM

A process called “monitored natural recovery” is part of the cleanup plan for certain areas of the river.

“Besides work being completed on the middle portion of the reach, the deposit downstream just south of Little Rapids was addressed as part of the larger downstream portion of the project.”

When other parts of a waterway require sediment removal or in-place sand and stone covers, natural processes can serve as an appropriate complement. MNR, if used alone, typically has no disruption other than natural events, so areas with sensitive habitat won't be further damaged by cleanup actions. With dredging and capping occurring in other parts of the river, the use of a natural process is recommended when it is determined to be protective, and in consideration of other ongoing work.

“MNR typically involves no physical disruption so there are no short-term impacts, which may be a positive outcome when it's important to keep impacts to valuable habitats to a minimum,” Hahnenberg continued. “This is one of the reasons EPA guidance encourages consideration of natural processes under appropriate conditions, as an acceptable approach, resulting in lower exposures and/or reduction of toxicity of contaminants in sediment.”

Besides being non-invasive, MNR is a relatively low-cost cleanup measure. “The majority of the cost is associated with the monitoring,” Hahnenberg added. “Since no equipment is needed to treat, handle or dispose of contaminated material, costs are minimal. And, short-term effects in addition to existing contaminant effects are also minimal.”

Finally, disposal of contaminated dredged sediment isn't needed, so it wouldn't be trucked through local communities.

Hahnenberg concluded, “Activities necessary for caps such as trucking material to the site or trucking sediment from the site to a landfill wouldn't occur. And, there wouldn't be any noise related to construction activities which might disturb people living in the area.”



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 & 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:

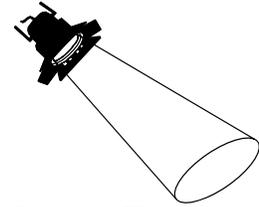
November

- ◆ *Jim Hahnenberg*, EPA: aquatic ecology class, University of Wisconsin, Green Bay; general Lower Fox River cleanup and NRDA: A Decade of Restoration.

December

- ◆ *Jim Hahnenberg*, EPA: paralegal class, Loyola University, Chicago; general Lower Fox River cleanup.

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



Spotlight On:

Nesting Platforms for Oneida Reservation Raptors

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

Wetland restoration sites on the Oneida Tribe of Indians of Wisconsin reservation attract thousands of migrating birds each spring and fall. Canvasback, goldeneye, bufflehead, trumpeter swan, least sandpiper, and greater and lesser yellowlegs are just few. The wetlands and adjacent uplands provide the birds with essential resting areas and food resources needed to complete their journeys and arrive at their destinations with adequate energy reserves.

The Oneida reservation, located near the city of Green Bay just northwest of the Lower Fox River, is situated along the Mississippi Flyway, a major corridor for migratory birds.

The tribe’s Environmental, Health & Safety Division was interested in providing nesting habitat for raptors such as the bald eagle and osprey at its wetland restoration sites. Both species are frequently observed within the 65,000-acre reservation, but very few nests have been recorded in recent years. Contamination of their food sources and loss of



PHOTO COURTESY OF ROD HILL, ONEIDA CONSERVATION DEPARTMENT

Conservation Corps crew members install nesting poles.

nesting habitat caused declines in both bald eagle and osprey populations. The bald eagle was federally listed as an endangered species until 2007. The osprey is currently listed as a threatened species by the state of Wisconsin.

Bald eagles are an important cultural symbol for the Oneida tribe. “Of all the birds, the Creator has chosen the eagles to be the leaders,” said Randy Cornelius, staff member with the Oneida Cultural

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Heritage Department. “Eagles fly the highest and see the furthest of all creatures.”

Both the bald eagle and the osprey have returned to northeast Wisconsin in recent decades in search of suitable nesting sites near open water. Utility poles, donated by a local power company, provide the elevated structure necessary for the nests. An octagon-shaped platform constructed primarily of metal and wood sits atop of the poles. Birds add their own nesting materials such as branches and other vegetation to the platform. The nests were constructed and installed by the Oneida Department of Public Works and Conservation Corps.

Oneida biologists track occupancy of the nests throughout the year. “Nesting poles are monitored more closely during early spring when raptors are searching for potential nesting sites,” stated Oneida Environmental Specialist Bill Koonz.

Bald eagles have been photographed on nesting poles in spring and fall. Ospreys have been recorded stooping for fish on Oneida’s re-established wetlands. “It is only a matter of time before these artificial nesting sites are occupied for breeding,” added Oneida Environmental, Health & Safety Division Director Pat Pelky.

In the meantime, tribal members enjoy seeing more eagles, ospreys, and other raptors in the skies over their reservation.

The project was funded by the Lower Fox River/Green

Bay NRDA Trustee Council using Natural Resource Damage Assessment settlement dollars. Matching funds to complete the project were contributed by the tribe. The ultimate goal of the project is to provide increased habitat and opportunities for nesting and breeding.

The natural resource trustees are comprised of the Wisconsin Department of Natural Resources, Oneida Tribe of Indians of Wisconsin, Menominee Indian Tribe of Wisconsin, U.S. Fish & Wildlife Service, 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 920-866-1753.



PHOTO COURTESY OF ROD HILL, ONEIDA CONSERVATION DEPARTMENT

An eagle returns to a nesting pole at one of the wetland restoration sites.

WDOT Puts Lower Fox River Sand to Good Reuse

The Lower Fox River cleanup contributed 70,000 cubic yards of reclaimed sand to the Wisconsin Department of Transportation to use as fill material for new “on ramps” as part of its U.S. Highway 41/ state Route 29 road project.

The state of Wisconsin has mandated that the reclaimed sand must meet the requirements of the beneficial re-use program administered by the Wisconsin Department of Natural Resources solid waste office. One of these requirements is that

blowing and drifting sand be controlled while it is stored and awaiting final cover. The cleanup project used a product called “Dirt Glue” that is mixed with water and sprayed on the sand pile to “glue” the loose particles together and reduce airborne sand.

The Wisconsin DOT reviewed and accepted “Dirt Glue” for this road project as well as to control dust and blowing sand at other state projects.

(Information Courtesy of The Boldt Company.)



Lower Fox River sand pile (right) to become part of new on-ramp for U.S. Highway 41/state Route 29.



Lower Fox River sand is staged.



Sand from Lower Fox River is compacted for new Green Bay on-ramp.



Lower Fox River sand is stockpiled for reuse.

PHOTOS COURTESY OF THE BOLDT TEAM

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.



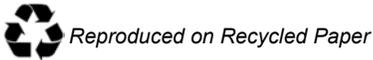
Check out these websites:
<http://www.epa.gov/region5/cleanup/foxriver>
<http://dnr.wi.gov/org/water/wm/foxriver/index.html>
<http://contaminants.fws.gov/issues/restoration.cfm>
<http://www.fws.gov/midwest/nrda/index.html>

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



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Prepared by the Fox River Intergovernmental Partnership: Wisconsin Department of Natural Resources, U.S. Environmental Protection Agency, U.S. Fish & Wildlife Service, Menominee Indian Tribe of Wisconsin, Oneida Tribe of Indians of Wisconsin, and National Oceanic and Atmospheric Administration. Supporting agencies include Wisconsin Department of Health Services, U.S. Agency for Toxic Substances and Disease Registry, and U.S. Army Corps of Engineers.

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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