

EPA to remove sunken ships from Lower Fox River

By Susan Pastor, U.S. Environmental Protection Agency

Remnants of five ships discovered in 2008 just north of the southern “railroad bridge” will be pulled out of the Lower Fox River.

An area near Georgia-Pacific’s Green Bay plant is slated for dredging and sand covering/capping by next year. Because the levels of PCB contamination in the sediment and on the ships themselves are so high, they need to come out so the cleanup can progress.

According to EPA Remedial Project Manager Jim Hahnenberg, original plans called for contractors to go around the ships and related debris. “We knew they were there, but our initial plans were to go around them and just leave them in place.”

EPA and various contractors are in contact with Wisconsin’s state historic preservation officer in Madison to develop plans to remove these vessels. Once the ships and other debris are removed from the river, they will be transported to the Waste Management-owned landfill near Manitowoc for proper disposal.

The ships, two of which date back to the 1880s, were discovered by archaeologists hired to document

artifacts found in the river from Appleton to Green Bay. With the help of Wisconsin historians, nautical organizations and maritime museums, the boats were identified as the *Bob Teed* and the *Satisfaction*.

Five years ago, the archaeologists were charged with making recommendations on how to handle the ships, also referred to as artifacts, so the cleanup could proceed on schedule. Back then, John Vetter, EPA’s national expert in historic preservation, other EPA staff and the SHPO worked together to develop a formal agreement regarding historical resources. Since that time, one of the paper companies responsible for the river’s PCB contamination has been working with the SHPO. “An agreement will ensure compliance with historic preservation laws and, as a result, discover the significant historic settings and activities that took place in and around the Lower Fox River,” said Vetter.

According to historical databases, the *Bob Teed* was built in 1883. The vessel’s history is sketchy. According to documents, the 74-foot hull steam tug was completely salvaged. All machinery has been removed and there is no evidence of any remaining wood “superstructure.” It appears that only the iron deck and frames have survived. The forward half is the only part of the boat that is not totally submerged.

More information is available on the *Satisfaction*. It was built in 1894 as a 47-ton tug that was used in the commercial fishing industry for nearly 25 years. It was bought by the Greiling Brothers of Green Bay in 1919 who converted it for towing, according to reports. In 1930, the *Satisfaction* was purchased by Waterways Engineering. After 16 more years of service, the boat was stripped of its equipment and left to sink near its slip at the Waterways dock. The wood hull on the *Satisfaction* also meets specific criteria to make it eligible for listing on the National Register of Historic Places.



PHOTO COURTESY OF THE BOLDT TEAM

Remnants of five sunken ships can be seen near the “railroad bridge.”

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Trustees approve \$200,000 for new restoration projects

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

Two new projects totaling \$200,000 were approved by the Fox River/Green Bay Natural Resource Trustee Council on Dec. 4, 2012, at its regular meeting hosted by the Oneida Tribe of Indians of Wisconsin.

The first project, coordinated by the U.S. Fish and Wildlife Service, focused on 70 acres of land preservation adjacent to the Uihlein Waterfowl Production Area near Rush Lake in Winnebago County. Natural resource damage assessment settlement funds in the amount of \$100,000 will support the preservation along with partner funds from the Upper Mississippi/Great Lakes Joint Venture Program. The parcels are dominated by wetlands and also contain the federally endangered eastern prairie fringed orchid.

The second project, also approved for \$100,000, is being implemented by the Brown County Land and Water Conservation Department. It will be used for continued restoration of tributaries and adjacent wetlands and uplands to improve northern pike spawning habitat on the west shore of Green Bay. Partner funds from various federal and state programs will also be used to implement projects during the 2013 field season.

In other matters, the council reviewed restoration accomplishments achieved with settlement funds over the last 10 years. Habitat restoration and preservation, as well as fisheries and public-use enhancement projects, were highlighted. "It's important to acknowledge the role of partnership funds from various government grant programs, tribes, private organizations and non-profit groups that helped implement these projects over the last decade," said Paul Ninham, Oneida business committee council member and trustee council representative.

Several partners, including The Nature Conservancy, also provided project updates. Its Green Bay watershed

coordinator discussed current conservation activities on the west shore. Geographic information systems, or GIS, tools developed by TNC and its partners to prioritize fish passage, land preservation and wetland restoration/mitigation projects were demonstrated. The trustees and TNC discussed continued partnership opportunities to implement future restoration projects.

Staff from the Brown County Land and Water Conservation Department described its restoration pike spawning habitat project on the west shore of Green Bay. These projects, funded partially through NRDA settlement funds, focus on the creation of spawning marshes and improved connectivity to tributaries that support pike migration from Green Bay. Monitoring information indicates pike are using the newly created sites. "Water temperature and climate are critical factors of success in a given year," said Director Jim Jolly, Brown County Land and Water Conservation Department.

The Wisconsin Department of Natural Resources updated the trustees on land preservation projects implemented with NRDA settlement funds over the last three years. According to Wildlife Biologist John Huff, Wisconsin DNR, the department coordinated the preservation of several new parcels in the Wolf River Bottomlands and on Green Bay's west shore. The Knowles-Nelson Stewardship Program provided partnership funds to cover about half of the total cost of these projects.

Finally, plaques were presented to recognize former council and technical team representatives from the Oneida Tribe, Wisconsin DNR and Menominee Indian Tribe of Wisconsin. Another council meeting will be held later this year. The date and location have not been finalized.

Trustee council launches new website

The new Fox River/Green Bay Natural Resource Trustee Council website, www.foxrivernrda.org, is now available. The general public, trustee partners and anyone interested in natural resource damage assessment can use it to read general Lower Fox River NRDA information, download documents, view examples of restoration accomplishments, and learn how to submit projects to the council.

Menominee Tribe appoints new rep to trustee council

By Susan Pastor, U.S. Environmental Protection Agency

Although Jeremy Pyatskowit has worked for the Menominee Indian Tribe of Wisconsin since 1996, he is the newest member of the Lower Fox River/Green Bay natural resource damage assessment trustee council's technical team.

As an environmental scientist representing the tribe, Pyatskowit brings several years of experience to the trustees. "I have been in the environmental services department a long time, so I have a pretty good grasp of aquatics projects," he said. "But the tribe's priorities are shifting somewhat and we are getting into restoration now."

The tribe, whose reservation is located in rural Keshena, has focused most of its restoration efforts on the nearby west branch of the Wolf River, as well as on some smaller creeks and tributaries, which flow into the river. "We've been looking at more habitat restoration and not doing as much sampling," he explained.



Jeremy Pyatskowit

Having grown up along the Wolf River, the lifelong Shawano resident has a strong interest in improving area fisheries. "There is a lot of need to make them better," he continued. "I've seen the success the other trustees are having with their projects which includes wildlife and birds, too. It's cool stuff."

One of the other trustees, the Oneida Tribe of Indians of Wisconsin, shares some goals with the Menominee tribe. "Even though Oneida is closer to the Lower Fox River, both tribes fish for food, or subsistence," he explained. "We see issues the same way. Fish consumption is an important part of our cultures."

The Menominee tribe's culture also includes hunting. "While Oneida is closer to a city, the Menominee reservation is primarily forested," Pyatskowit said. "Waterfowl injuries that have occurred have affected our hunting, which is also part of our historical homeland."

Because fish is part of the tribes' diets, he added that they would all like to see the Lower Fox River become a resource available to everyone again "without worrying about the health effects it might have."

An avid fisherman in his spare time, Pyatskowit said the subject of the Lower Fox River seldom comes up among tribal members. "It's been known to be in bad shape for some time," he continued. "PCBs are a big issue and we would like to get to where you can fish there without a thought. There will be some education involved when it becomes a resource again."

As a trustee, Pyatskowit is able to put his aquatics toxicology and general resources management education to good use. With two bachelor's degrees from the University of Wisconsin-Stevens Point, he said he "brings a different eye to the table." He added, "As a trustee, I can apply what I do on a daily basis so it's a good place to sit."

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Out and About ...

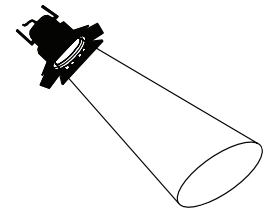
By Susan Pastor,
U.S. Environmental Protection Agency

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. To request a speaker, please contact the agency directly or Susan Pastor, EPA Community Involvement Coordinator, at 312-353-1325 or 800-621-8431, Ext. 31325, or via email at pastor.susan@epa.gov.

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

Spotlight On:

Duck Creek Fish Passage Project



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

The removal of two dams on Duck Creek will mean better fishing for the Oneida Tribe of Indians of Wisconsin and other local residents.

The dams, located in Pamperin Park on the west side of Green Bay, were removed last fall to improve fish migration. Other benefits of the project include improved and expanded fish and nursery habitat for feeding and spawning.

“This project is an advantage for the fish and the anglers,” stated Jim Snitgen, water resource supervisor for Oneida’s environmental health & safety division. “And, the overall health of the system will be improved as well.”

The dams had no known hydrologic purpose and were constructed in the 1930s for aesthetic reasons. Another possible theory for the original dam construction was to collect water for ice skating rinks.

An additional dam located upstream on Duck Creek, within the Oneida Golf and Country Club, was also modified. The modifications included installing



PHOTO COURTESY OF ONEIDA TRIBAL HEALTH & SAFETY DIVISION

Duck Creek following removal of upper dam in Pamperin Park on the west side of Green Bay.

walls along the river banks to prevent the movement of invasive species, such as the round goby. These modifications will not restrict the passage of other desirable fish, such as northern pike and white suckers.

The project opened 180 miles of fish passage within Duck Creek and its tributaries. “Fish will not be blocked from their historic migration routes and will be able to make use of the entire system,” Snitgen explained.

The dam removal also results in fish habitat improvements throughout the watershed. Natural river habitat is restored by allowing debris, small rocks, aquatic organisms, and nutrients to pass below the dam to improve fish habitat. Natural seasonal flow variations are also reestablished, and unnatural temperature variations that occur above and below the dam are eliminated.

The Oneida Tribe plans to work with researchers to document fish migration in the newly opened miles of stream. Future research will study how northern pike and their young use the newly opened miles of Duck Creek and its tributaries.



PHOTO COURTESY OF ONEIDA TRIBAL HEALTH & SAFETY DIVISION

Dam is removed from Duck Creek in Pamperin Park.

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The project was led by the Oneida Tribe and supported by other partners including the Wisconsin Department of Natural Resources, Brown County, Oneida Golf and Riding Club, and the U.S. Fish and Wildlife Service.

The project was partially funded by the Fox River/Green Bay Natural Resource Trustee Council using natural resource damage assessment settlement dollars. Other partner funds were contributed by FWS, Wisconsin DNR, Wisconsin Coastal Management Program and the Great Lakes Restoration Initiative.

The natural resource trustees are comprised of the Wisconsin DNR, Oneida Tribe, Menominee Indian Tribe of Wisconsin, FWS, and National Oceanic and Atmospheric Administration.

For further information on NRDA projects, contact Trustee Council Coordinator Betsy M. Galbraith, at betsy_galbraith@fws.gov or 920-866-1753.

Sediment removal from DePere to Green Bay enters fifth year

By Susan Pastor, U.S. Environmental Protection Agency

Year five of dredging in the Lower Fox River from DePere to Green Bay resumed in early April.

According to EPA Remedial Project Manager Jim Hahnenberg, work this year will take place between the DePere Dam and the Mason Street Bridge.

At press time, he said plans tentatively include dredging 24 hours per day, five days a week, similar to last year. "More than 18,000 cubic yards of sediment should be removed each week," Hahnenberg explained. "This year, we hope to have at least three hydraulic dredges cleaning up PCB-contaminated sediment."

Hahnenberg added that this year's goal is to remove 575,000 cubic yards by mid-November. It is expected that sand capping and covering, which started in 2011, will also continue.

"Covering" involves placement of a layer of sand while "capping" is a layer of sand covered by a layer of stone. Both are expected to continue into November, weather permitting. "Our goal is to cap 25 acres of sediment and cover nine acres," Hahnenberg continued. "That's about the size of 33 football fields."

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Trustee Council Coordinator Betsy Galbraith agreed. "Jeremy brings the unique perspective of the Menominee Tribe to the technical team," she said. "He also adds some fun to the group."

When he isn't indoors discussing fisheries projects, the father of two young children is outdoors having fun with

This year, mud pulled from the river will be taken to licensed landfills for proper disposal. All dredged sediment will still be pumped into the State Street 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.

Some sediment with higher levels of PCBs can be trucked to Ridgeview Recycling and Disposal Facility in Whitelaw, near Manitowoc. Owned by Waste Management of Wisconsin, this landfill received a permit last year from the Wisconsin Department of Natural Resources to accept this type of material.

"Sediment with PCB levels over 50 parts per million is considered to be 'highly contaminated' so it can be trucked to this new location," Hahnenberg continued. "However, most of the sediment will have PCB levels less than 50 ppm, so it can continue to be trucked to Veolia Hickory Meadows Landfill in Chilton."

As in previous years, truck traffic will be coordinated with the local communities, which include Wrightstown and Hilbert. "The emphasis is always on safety," Hahnenberg concluded.

his family. He and his wife, Heather, take their son Tucker and daughter Madeline cross country skiing, hunting and fishing.

"Tucker loves fishing," he concluded. "It's been great teaching him a great life sport. Even though we like to eat fish, he's learning that you can't keep them all."

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Both types of tugs apparently played a major role in the economic development of Green Bay toward the end of the 1800s and the first half of the 1900s. They were considered to have been involved in important maritime trade. Steam tugboats were typically used to haul timber, coal, limestone and other types of cargo. They also assisted large freighters as they arrived and left port and helped other vessels navigate icy waters. They were eventually replaced by diesel-powered boats and disposed of in the river near property currently owned by Georgia-Pacific.

Little information seems to be available on three other wooden barges lying parallel with the shoreline near the "railroad bridge." One may be the remains of a dredge or crane often used in the 19th and 20th centuries to

improve and maintain Fox River navigation channels, locks, dams and canals.

Under the National Historic Preservation Act, archaeological studies are required when it is suspected that construction projects may disturb cultural resources, such as these sunken tug boats. Artifacts found are also typically evaluated for eligibility for nomination to the National Register of Historic Places.

According to Hahnenberg, the public must be "compensated" for the removal of these artifacts. Because the river cleanup will result in the destruction of these historic vessels, an interpretive display for the Neville Public Museum of Brown County may be developed by one of the paper companies responsible for the PCB contamination.

Fish advisory signs, kiosks get updated information

By Anke Hildebrandt, Health Educator, Wisconsin Department of Health Services

Fish advisory signs and kiosk information along the Lower Fox River were updated in early March.

The Wisconsin Department of Health Services, in cooperation with the Wisconsin Department of Natural Resources, replaced more than 60 outdated advisory signs in parks and at boat landings from Neenah to Peninsula State Park in Fish Creek. Areas with kiosks received posters with health information and dredging updates.

Anglers are still advised to consult the advisory and choose smaller, younger fish. Proper filleting and cooking techniques to

reduce exposure to PCBs that can build up in the fatty tissues of the fish are also encouraged. Leaner fish such as bluegill, yellow perch, white suckers, and smaller sizes of walleye, northern pike and bass just over the legal limit tend to have fewer chemicals than fatty, larger size fish, according to the Wisconsin DHS.

Other features of the new kiosk information include updates from the many projects taking place along the river, including restoration projects on Cat Island as well as at various area wetlands.

Another fish advisory update will likely take place over the summer, so check the signs for changes. You can also snap the Quick Response, or QR, code with your smartphone to link to the Wisconsin DNR website at <http://dnr.wi.gov/FCSEExternalAdvQry/FishAdvisorySrch.aspx>.

Health information regarding PCB exposure can be found on the Wisconsin DHS website: <http://dhs.wi.gov/eh/hlthhaz/fs/pcblink.htm>.

Be on the lookout for the new fish advisory signs and kiosk information in your area!



PHOTO BY ANKE HILDEBRANDT

Wisconsin DHS staff replace fish advisory signs along the Lower Fox River.

Army Corps dredges in Green Bay again in 2013

By Susan Pastor, U.S. Environmental Protection Agency

Bucket environmental dredging in the Lower Fox River is being done by the U.S. Army Corps of Engineers again this year.

The Corps continues to work with the EPA to ensure the river remains navigable. Dredging started in early April in Green Bay and will move upstream to the Georgia-Pacific turning basin at the Interstate 43 Bridge and the "railroad bridge." Work will move southwest to other areas downriver and should be completed by July. This is similar to last year's schedule, according to EPA Remedial Project Manager Jim Hahnenberg.

"The Corps' plans have been coordinated with EPA so navigational dredging won't interfere with environmental dredging," he explained.

Hahnenberg added that the Corps is using similar equipment to what was used in the past. An environmental-type closed bucket dredge with "baffles and seals" restricts the movement of water and mud. "The seal, which is similar to a rubber gasket, stops contaminated water and mud from leaking through as the PCB-contaminated sediment is pulled out of the river," said Hahnenberg.

This type of bucket dredge, which is different from the Corps' typical navigational dredge, won't stir up sediment or cause PCB contamination to spread. 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 have filled in since last year's Corps dredging.

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:



Check out these websites:

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

<http://dnr.wi.gov/topic/greatlakes/greenbay.html>

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

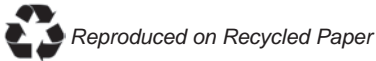
<http://www.fws.gov/midwest/es/ec/nrda/index.html>

<http://www.foxriversnrda.org>

- **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



Region 5
 Superfund Division (SI-7J)
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Prepared by the Fox River Intergovernmental Partnership: Wisconsin Department of Natural Resources, U.S. Environmental Protection Agency, U.S. Fish and 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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