

# The Sheboygan River Explorer



Spring 2012

Volume 1, Issue 2

## Be Patient and Stay Tuned

This year is lining up to be the greatest year ever for the Sheboygan River! The goal of the Sheboygan River restoration work is to reduce health risks to people, fish, and wildlife and increase opportunities for economic and recreational activity.

While all of the work removing contaminated sediment and improving fish and wildlife habitat along and in the river is very exciting, it will likely cause some inconveniences for you and me this summer, calling for our patience. It will be as if the lower portion of the Sheboygan River is "under construction." Just as with any construction site, there will be heavy machinery, areas temporarily closed, slowly-moving traffic, noise, dust, bright lights, and other annoyances.

All of this is being done for long-term benefit to all of us who use and enjoy the Sheboygan River and magnificent Lake Michigan. Take time to learn about and enjoy these resources!

Inviting you to explore and help restore our Sheboygan River,

*Deb*



**Debbie Beyer**  
UWEX Natural Resources Educator

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*The goal is to make the Sheboygan River cleaner and deeper to reduce health threats for people, fish and wildlife and to increase opportunities for economic and recreation activities.*

## Sheboygan River Contacts

**City parks habitat projects, boating, dredging :** Chad Pelishek, City of Sheboygan, Planning and Development, (920) 459-3377 and [development@ci.sheboygan.wi.us](mailto:development@ci.sheboygan.wi.us)

**Habitat projects, Fish & Wildlife Technical Advisory Committee:** Stacy Hron, Wisconsin Dept. of Natural Resources, Sheboygan AOC Coordination, (920) 892-8756 x 3051 and [shron@wi.gov](mailto:shron@wi.gov)

**Private property invasive plant control opportunity:** Matt Steiger, Wisconsin Dept. of Natural Resources, Bureau of Watershed Management, (920) 892-8756 x 3022 and [matthew.steiger@wi.gov](mailto:matthew.steiger@wi.gov)

**Program and informational materials requests, advisory committees:** Debbie Beyer, UWEX Regional Natural Resources Program, (920) 459-6644 and [deb.beyer@ces.uwex.edu](mailto:deb.beyer@ces.uwex.edu)

Amy Kretlow, UWEX Sheboygan River Education Specialist, (920) 459-5918 and [akretlow@uwm.edu](mailto:akretlow@uwm.edu)

**Guided educational kayak and canoe trips for groups of 10-15:**

Sarah Dezwarthe, Sheboygan River Community Advisory Committee Camp Y-Koda Outdoor Skills and Education, (920) 467-6882 and [yeducation@sheboygancountyyymca.org](mailto:yeducation@sheboygancountyyymca.org)

## Explore and Learn More!

Programs, events and web-based materials to help you explore the Sheboygan River

Contact Camp Y-Koda at 920-467-6882 or [campykoda@sheboygancountymca.org](mailto:campykoda@sheboygancountymca.org) for family kayaking and canoeing expeditions, schedules and to register.

### Adopt-A-Stream, or Adopt-A-Riverbank

You can make a difference by adopting a stream or stretch of riverbank. Contact Camp Y-Koda for more information to get you started.

### Hook, Line and Sinker Day Camp: ages 6-8

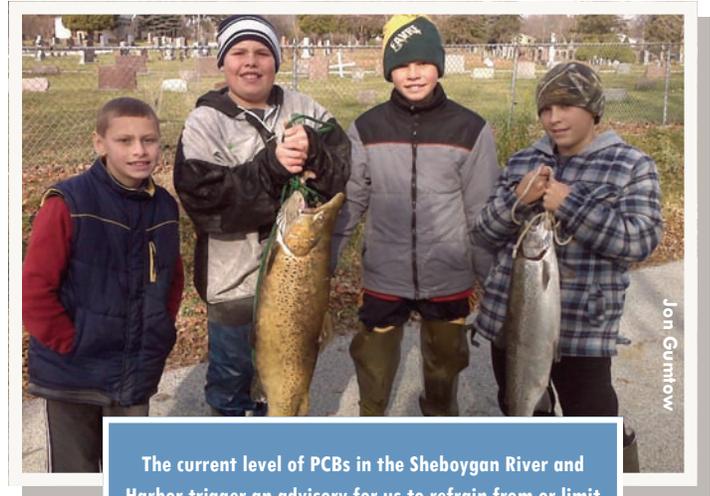
July 16-20, Camp Y-Koda

### Surf's Up – Windsurfing Day Camp: ages 8-14

July 16-20, Camp Y-Koda

### Junior Kayak Day Camp: ages 8-10

July 30-Aug. 3, Camp Y-Koda



The current level of PCBs in the Sheboygan River and Harbor trigger an advisory for us to refrain from or limit our consumption of fish and waterfowl.



### Explore the Sheboygan River at your leisure:

Wisconsin AOCs info & resources for citizens, including narrated slide presentations:

<http://fyi.uwex.edu/aocs>

Wisconsin AOCs official maps, records and reports:

<http://dnr.wi.gov/org/water/greatlakes>

Sheboygan River canoe and kayak trips:

<http://sheboygancountymca.org/camp-y-koda>

Sheboygan River Basin Partnership:

<http://www.sheboyganrivers.org>

All Great Lakes AOCs information:

<http://www.epa.gov/es/aoc>



# What's Happening With Habitat?

In addition to removing contaminated sediment and decreasing the levels of PCBs and PAHs in the Sheboygan River, the first phase of habitat improvement is planned for this summer.

## **Habitat revival for fish, wildlife and you!**

Why is habitat revival needed? The goal of this work is to improve Sheboygan River conditions so that the river is no longer one of the 43 most contaminated and degraded places in the Great Lakes, but rather that it is a healthy place for fish, wildlife and us to live and grow.



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Over the years, we have changed the Sheboygan River watershed from a landscape of vast forests and wetlands to a landscape of villages and cities, farm fields and lawns, paved roads, parking lots and sidewalks, with only small scattered blocks of forests and few wetlands. This has greatly reduced the amount and quality of fish and wildlife habitat locally and throughout the Great Lakes region.

## **How is this being done?**

A committee of biologists began meeting in fall of 2009 to study the river and identify what needs to be done to bring it up to the quality of other similar rivers. In 2010 and 2011, the Wisconsin Department of Natural Resources gathered data on fish, mussels, insects, birds, mammals, reptiles and amphibians, plants and other aspects of habitat in the river.

The biologists identified three main natural areas (Kiwanis Park, Wildwood Islands and Taylor Drive/Indiana Avenue intersection) where there is a gap in riverbank habitat, or the habitat is in poor condition. Environmental contractors are now working on the three habitat projects with oversight from the Wisconsin Department of Natural Resources, U.S. Environmental Protection Agency, City of Sheboygan, Sheboygan County and the committee of biologists.

## **Who is doing the work?**

The habitat construction work you will see this summer is being done by the City of Sheboygan in partnership with the Wisconsin Department of Natural Resources, Sheboygan County, Bureau of Land Management, and U.S. Environmental Protection Agency.

## **What is being done?**

Three projects are being constructed as first steps in reviving fish and wildlife habitat along the Sheboygan River. All of the projects involve removing non-native plants and planting native trees, shrubs, grasses and other plants. Eroded portions of the riverbank will be repaired and strengthened. Places for you to view and fish in the river will be improved. The goal is to make the Sheboygan River a better place for fish, wildlife and you!



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## **How much does it cost?**

Approximately \$5.5 million is being spent on this initial phase of habitat revival and fish and wildlife studies. The funding comes from the Great Lakes Restoration Initiative, an important federal effort to make substantial improvements in the ecological and economic viability of the Great Lakes. These projects kick-off a new era in caring for the Sheboygan River. You and others in the community will be called upon to continue to take care of the river.

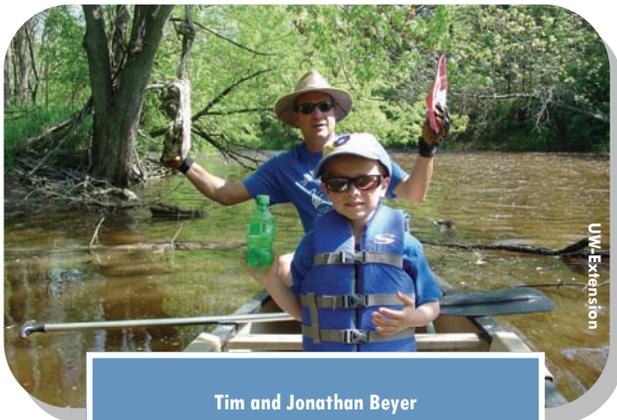
By Debbie Beyer, UW-Extension



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### Sheboygan River fish, wildlife & habitat project summary

Project Name	Leader	Time Line	Purpose
Fish, wildlife and habitat rapid assessment	Wisconsin Department of Natural Resources	2010-2012	To guide decision-making for habitat projects and to establish baselines for measuring success in the future.
Tree swallow contaminant study	U.S. Geological Survey	2010-2012, 2014	To determine level of contamination in the food chain and impacts on tree swallow reproduction. To establish baselines for measuring decreases in contaminant impacts in the future.
Mussel toxicity study	National Oceanic and Atmospheric Administration	2010, 2011, 2012	To measure the level of contamination in the aquatic food chain and establish baseline for measuring future improvement .
Fish consumption advisory evaluation	Wisconsin Department of Natural Resources	2011, 2016, 2021	To determine when the consumption advisory on Sheboygan River fish can be lifted.
Fish tumor assessment	U.S. Geological Survey, University of West Virginia & Wisconsin Department of Natural Resources	2012-2014	To determine if PCB contamination is causing tumors in Sheboygan River fish.
Waterfowl consumption advisory evaluation	Wisconsin Department of Natural Resources	2011-2014	To determine if Sheboygan River and Harbor mallard and scaup consumption advisory can be lifted.
Benthos, phytoplankton and zooplankton assessment	U.S. Geological Survey	2012-2013	To determine contamination impacts on aquatic life (other than fish), and establish baseline to measure future improvements.
Kiwanis Park shoreline habitat revitalization	Wisconsin Department of Natural Resources & City of Sheboygan	2011-2012	To revitalize shoreline habitat for the benefit of resident and migrating fish and wildlife, and improved use and enjoyment by people.
Wildwood Islands habitat revitalization	Wisconsin Department of Natural Resources & City of Sheboygan	2011-2012	To revitalize island and shoreline habitat for the benefit of resident and migrating fish and wildlife.
Esslingen Park, Taylor Dr./Indiana Ave wetlands and shoreline habitat revitalization	Wisconsin Department of Natural Resources, City of Sheboygan & Sheboygan County	2011-2012	To revitalize shoreline and wetland habitat for the benefit of resident and migrating fish and wildlife.
Schuchardt property conservation plan	Wisconsin Department of Natural Resources & City of Sheboygan	2011	To assess the property to make recommendations for protection, conservation and future uses.
Schuchardt property invasive plant control	Wisconsin Department of Natural Resources & City of Sheboygan	2012	To test and implement invasive plant control methods.
Sheboygan River invasive plant mapping	Wisconsin Department of Natural Resources	2011	To identify and map colonies of invasive plants to guide planning for control.



Tim and Jonathan Beyer  
Sheboygan River Litter Cleanup, May 2012.

### The goal: Raise the Sheboygan River's grade from a Great Lakes "F" to a "C"

Back in 1987 it was known that the Sheboygan River had extremely high-levels of PCBs, and in some areas, PAHs also.

It was also observed that through the course of history, fish and wildlife habitat had been degraded, especially along the urban portions of the river. With these factors in mind, the Sheboygan River received the equivalent of an "F" grade from the Great Lakes International Joint Commission, and was listed as one of the Great Lakes Areas of Concern. The Sheboygan River was listed as having nine impairments:

- \* Restrictions on dredging activities
- \* Restrictions on fish and wildlife consumption
- \* Degradation of fish and wildlife populations
- \* Loss of fish and wildlife habitat
- \* Fish tumors or other deformities
- \* Bird or animal deformities or reproduction problems
- \* Degradation of benthos
- \* Degradation of phytoplankton and zooplankton populations
- \* Eutrophication or undesirable algae

Money and work in 2012 is targeted at greatly reducing the levels of PCBs and PAHs pollution and improving fish and wildlife habitat, so that the Sheboygan River is no longer considered to be an "F" river - an Area of Concern. The goal of the Great Lakes Restoration Initiative is to improve conditions in the Sheboygan River to a grade "C" - conditions that one would expect of a river with an industrial history and conditions that contribute positively to the health of the Great Lakes. When this is achieved (it will take several years of

monitoring to determine this achievement), the Sheboygan River can be removed from the list of Great Lakes Areas of Concern.

This does not mean that the work stops after 2012. Rather, it really is just the beginning. More can be done to continue to clean up the river and make it a healthier place for fish, wildlife and people. Stay tuned to learn about what is happening and for ways that you can help!

### Every day you can help the Sheboygan River become healthier

- \* Practice river-friendly lawn care, by minimizing use of lawn chemicals.
- \* Test your lawn's soil to avoid over-applying fertilizer. Test kits are available at the Sheboygan County UW-Extension Office.
- \* Direct downspouts to your lawn, rain garden or rain barrel, away from pavement.
- \* Clean up litter and pet waste regularly.
- \* Keep your car tuned-up to reduce toxic leaks.
- \* Wash your car at a car wash facility, or at home on your lawn, rather than on your driveway or street.
- \* Minimize the miles you drive: carpool, walk or bike instead.
- \* Dispose of household hazardous waste (paint, drained oil, herbicides, cleaning solutions, etc.) at Clean Sweep events.
- \* Dispose of medicines, cosmetics and personal care products at pharmaceutical collection events.
- \* Avoid pouring anything into storm drains.
- \* Encourage city officials to actively manage stormwater.

Volunteer to help with a river project. Contact Deb Beyer at 920-459-6644 or [deb.beyer@ces.uwex.edu](mailto:deb.beyer@ces.uwex.edu).



Girl Scouts learning about the Sheboygan River,  
May 2012.

# The Digs on Dredging

A Cleaner, Deeper River Coming Soon!

## What is being done?

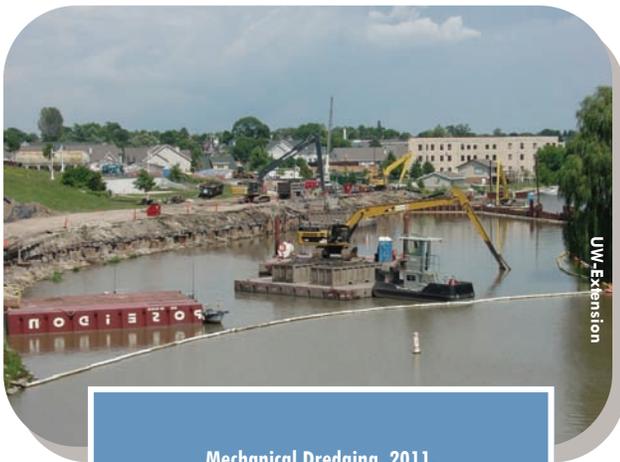
Dredging projects are removing sediment from the bottom of the river, which is contaminated with polychlorinated biphenyls (PCBs) and polyaromatic hydrocarbons (PAHs). More than 400,000 cubic yards of sediment are being removed, equal to more than 300 dump trucks per day for 120 days. Dredging is making the river deeper, about 11-15 feet in the inner harbor and from 5-17 feet deep upstream of the 8th Street bridge.

## Where and when is this work being done?

In 2012, dredging is taking place from the mouth of the river up to just past Kiwanis Park. Dredging will start in May and is targeted to finish by the end of 2012.

## How is this work being done?

A cleanup is complex and has multiple stages. A group of engineers, municipal officials, and state and federal environmental specialists have been negotiating and planning the projects for two years. Numerous legal documents have been developed over the past 25 years. Two types of dredging are being conducted in 2012: mechanical dredging (scooping) and hydraulic dredging (vacuuming).



Mechanical Dredging, 2011.

Dredging projects are like big construction projects on water. Barges and large dredges will be working 24/7. Docks and slips may be relocated temporarily. There will be noise, dust, bright lights at night, and truck traffic. City launches on the river are closed for the rest of 2012.

Please use landings upstream from Esslingen Park. A take-out landing is available just upstream from Esslingen Park, along University Drive.

## Who is doing the work?

## How much does it cost?

The three dredging projects are through different pieces of legislation which authorize or require certain parties to participate.

Approximately \$70 million is being spent in 2012 to reduce the level of contaminants in the Sheboygan River.



Hydraulic Dredging, 2011.

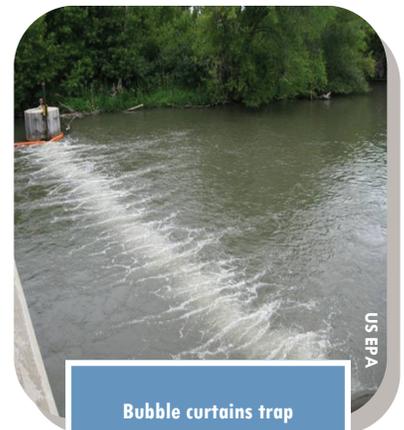
## Organizations involved in the dredging include:

U.S. Environmental Protection Agency,  
Great Lakes National Program Office  
U.S. Environmental Protection Agency, Superfund  
Wisconsin Department of Natural Resources  
Sheboygan County  
City of Sheboygan  
Pollution Risk Services  
Tecumseh Products Company  
Wisconsin Public Service

## Why is this being done?

Historic discharges of pollutants left the Sheboygan River contaminated with PCBs and PAHs, chemical compounds linked to reproductive problems and cancer. PCBs travel up the food chain and can cause health problems in people who eat contaminated fish and game. That is why we are advised to refrain from, or limit our fish and waterfowl consumption. PAHs are harmful to aquatic life and are known to cause cancer in people.

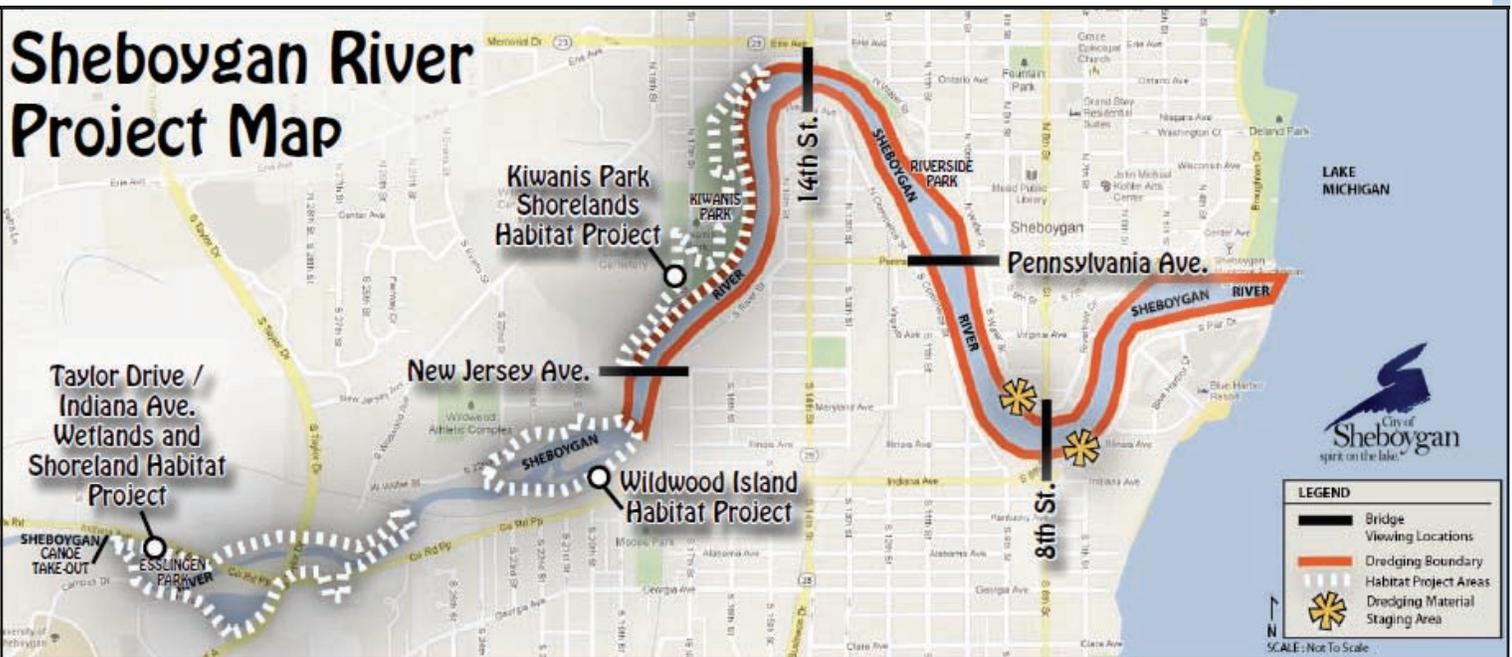
Also, the high-levels of PCBs and PAHs in the river caused a restriction on dredging. Over the years, the river has become shallower. Greater depths will make the river available to larger vessels and safer and easier to navigate.



Bubble curtains trap sediment.

By Debbie Beyer, UW-Extension, and Caitie McCoy, Illinois-Indiana

# Sheboygan River Project Map



## Boat Safely in the River!

Steer clear of orange buoys, which mark an underwater pipe.

Use marine radio #72 for dredge operators.

Use marine radio #16 for periodic dredge reports from the Coast Guard, starting in mid-July.

Be patient and stay tuned!

## We're in this together. Please excuse the mess.

Dredging projects are like big construction projects on water. Barges and large dredges will be working 24/7. Docks and slips may be relocated temporarily. There will be noise, dust, bright lights at night, and truck traffic. City launches on the river are closed for 2012.

### Motorized boaters:

Please navigate with caution and reduced speed. Please use the Harbor Centre Marina to access Lake Michigan.

### Kayakers and canoeists

Kayaking and canoeing from Esslingen Park to the Harbor is discouraged.



## Did you know?

1976 is when PCBs were discovered in the Sheboygan River. The WDNr study was prompted by the fact that a trapper noticed milk were absent from the lower Sheboygan River corridor. Reproduction in milk decreases dramatically when there is PCB contamination.

More than 200 types of PCBs were used in the United States from 1929-1978. Polychlorinated biphenyls (PCBs) are chemical compounds that were used to make liquids and plastics, among other things, more stable in high temperatures.

There are more than 10,000 types of polynucleararomatic hydrocarbons (PAHs), toxic chemical compounds produced when something is burned. In the early 1990s, PAHs were found in high quantities near Boat Island. The source was waste material left by the Sheboygan Power and Light Co., which in the late 1800s and early 1900s made gas by burning coal. There were no regulations for disposing of such waste at that time.

Welcome, Amy Kretlow!

Amy came on board with UW-Extension in May. She is assisting with Sheboygan River education and outreach. You may see her at events, or talking with folks along the river. Amy's phone number is (920) 459-5918 and her email address is [akretlow@uwvm.edu](mailto:akretlow@uwvm.edu).

Amy Kretlow  
Sheboygan River Outreach  
and Education Assistant



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Debbie Beyer  
UW-Sheboygan  
One University Drive  
Sheboygan, WI 53081  
(920) 459-6644 (phone)  
(920) 459-6602 (FAX)