



# *The* **Grand Calumet** *River Revitalized*

**I**magine a Grand Calumet River safe for people, fish, birds and wildlife to utilize and enjoy. With the latest clean up efforts, performed under the Great Lakes Restoration Initiative's Legacy Act by a team of scientists and engineers, such a vision is closer to being realized than ever before. Since 2009, 2.3 million pounds of contaminated sediment have been dredged (removed) or capped (isolated from the environment). The team has restored acres of wetland habitat along the river with native trees, grasses, and other plants, providing food and shelter to local fish and wildlife. As a result of this work, a cleaner Grand Calumet River will run through the globally rare dune and swale habitat found in northwest Indiana.

**For more information, contact Caitie McCoy at (312) 886-1430 or [cmccoy2@illinois.edu](mailto:cmccoy2@illinois.edu).**



## SEDIMENT CLEANUP OPERATIONS

### 1. What kinds of contaminants are being removed from the river?

Sediment contaminated with heavy metals, oil, grease, and chemicals like PAHs and PCBs is being removed from the river. Because the contamination is so deep, deeper layers of sediment will be capped with a chemical-physical barrier. A lot of the pollution was created by industrial processes and discharged into the river.

### 2. How long will the work take?

Work started in 2009. The next phase of the cleanup from Kennedy Ave to Cline Ave started spring 2013 and will take approximately three years. The rest of the river will be cleaned in phases, and could take about 10 years, assuming non-federal sponsors can help fund phases that have not yet been addressed.





### 3. What will the area look like during the cleanup process?

You will see a lot of activity. It's like a large construction project on the water. In the river, there will be barges, dredges pumping and long pipes connected to land. On land, there will be a portable wastewater treatment facility, large tubes filled with sediment, stockpiles of sediment, and truck traffic. An old railroad bridge will be removed to increase safety.



**4. Where is the contaminated sediment from the river being taken?**

Dredged sediment from Kennedy Ave to Cline Ave is going to Newton County Landfill, which is certified to accept this kind of waste.

**5. How is the contaminated sediment being treated once it is removed from the river?**

Contaminated sediment is dried on land to be safer and less expensive for disposal. The project team treats the water coming out of the sediment before returning it to the river.

## PROJECT COORDINATION

**5. Why is the work happening now?**

The Great Lakes have a new approach to clean up pollution. The Great Lakes Legacy Act, funded by the Great Lakes Restoration Initiative, is a collaborative, voluntary sediment cleanup program. The US Environmental Protection Agency and its state partners, Indiana Department of Environmental Management and Indiana Department of Natural Resources, are funding the project. Indiana funds are from a legal settlement with several local industries to reimburse the public for damages to fish, wildlife, and other natural resources. Collaborating partners include U.S. Fish and Wildlife Service, U.S. Army Corps of Engineers, The Nature Conservancy, Save the Dunes, Shirley Heinze Land Trust, Illinois-Indiana Sea Grant, and local municipalities.



## 7. Why isn't the river getting cleaned up as one big project?

The environmental problems facing the river are too large and expensive to tackle in one, big project. The solution is to separate the river into segments and work on them one by one. The team chooses upstream segments that have a lot of potential for habitat restoration. The US Army Corps of Engineers dredges sediment in the Indiana Harbor and Ship Canal to improve navigation and safety.

## 8. Why are multiple agencies working on the river?

Because there is so much work to be done, a large team of agency and local experts is working on the river. Each team member has a unique skill, and collaboration allows the team to combine resources. For example, the federal and state governments have sediment cleanup expertise and funding, local conservation groups know what to plant and how to manage the habitat, and community groups are skilled at getting the word out.

# HABITAT QUALITY

## 9. What are the habitat restoration plans?

For the Kennedy Ave to Cline Ave stretch, the team will restore habitat near the shore and in the marsh. The team plans to remove invasive species like Phragmites and plant native trees, grasses, and water-dwelling plants. The habitat near the shore is a transition zone; plans are to install plants that like a combination of wet and dry conditions. The project team will also create ponds to provide aquatic refuge in dry seasons for species like turtles.



# GRAND CALUMET RIVER SEDIMENT REMEDIATION AREAS



Remediated



In Progress



Not Officially Addressed



### **Stateline to Hohman Ave**

Cleanup is being designed and will likely begin early 2014.

### **Hohman Ave to Columbia Ave**

Begun October 2009, the project was completed September 2011.

### **Columbia Ave to Indianapolis Blvd**

Begun July 2011, the project was completed May 2012.

### **Indianapolis Blvd to Kennedy Ave**

#### **Indiana Harbor Canal**

Currently discussing potential project with East Chicago Waterway Management District.

### **Kennedy Ave to Cline Ave**

Currently undergoing remediation.

### **Cline Ave to US Steel Reach**

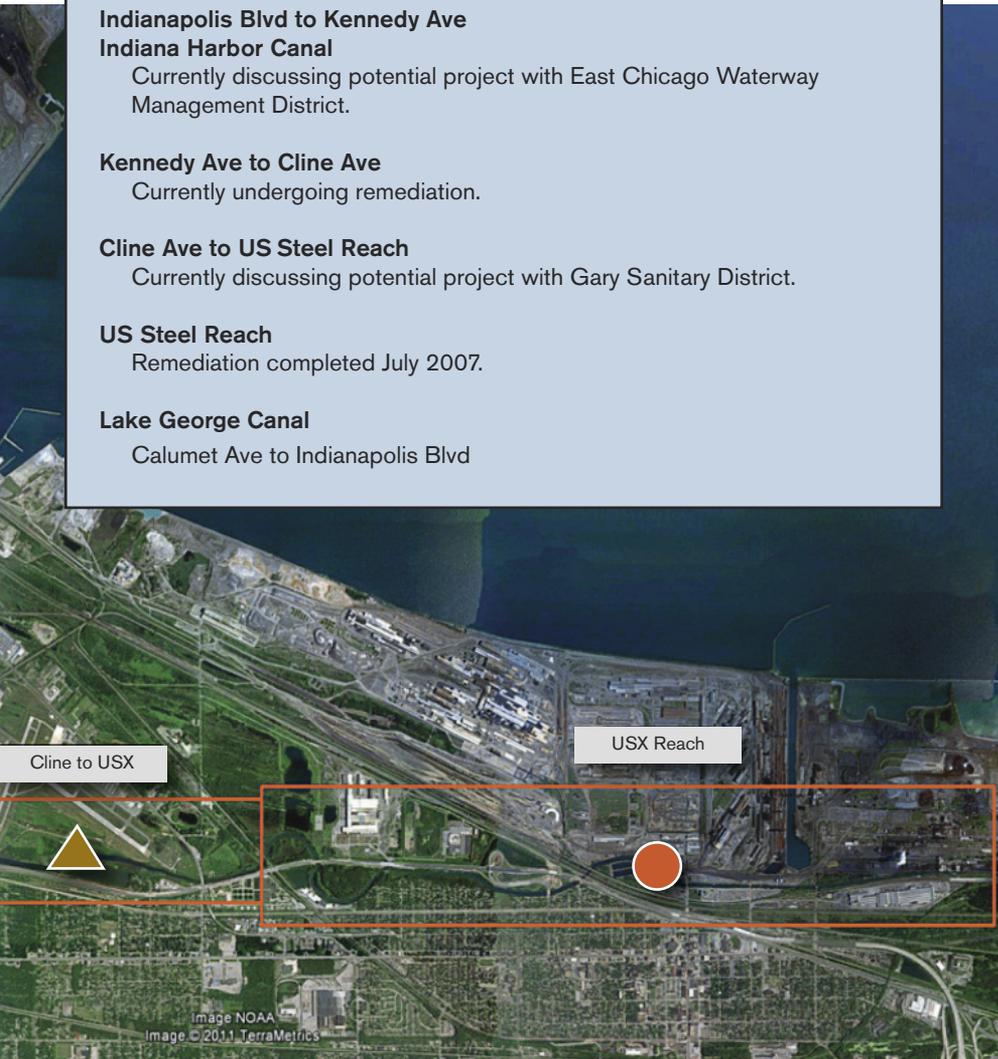
Currently discussing potential project with Gary Sanitary District.

### **US Steel Reach**

Remediation completed July 2007.

### **Lake George Canal**

Calumet Ave to Indianapolis Blvd



## 10. What determines when the river is cleaned up and restored?

After the work is completed, the project team studies the environment to make sure it is restored. Fish, birds, plants, and benthos (sediment-dwelling critters) are some of the things they study. These things provide information on the health of the river and alert the team to any remaining environmental problems.



## CURRENT STATE OF THE RIVER

### 11. Is it okay to touch the water?

After large storms, we advise not touching the water because combined sewer overflows can cause high levels of bacteria in the river. The bacteria can linger in slow-moving water like the Grand Calumet River. The Great Lakes Legacy Act does not address bacteria in the water; it cleans up a different kind of pollution: historical contamination in the sediment.

### 12. Is it safe to eat fish from the river?

No. According to agencies in the state of Indiana, fish that live in the Grand Calumet River are not safe to eat. The state will monitor fish to determine when they are safe to eat again. Check local advisories for more information.

## SHORT-TERM IMPACTS

### 13. Could any fish and/or wildlife be harmed during the cleanup?

Small numbers of fish or wildlife may be lost, but the team is using practices that minimize impact, such as routine checking of equipment. Fortunately, noise and activity cause fish and wildlife to scatter, keeping them out of harm's way. Because the work will improve habitat for fish and wildlife, the project team believes temporary losses are outweighed by the overall benefits to fish and wildlife.

### 14. Will dredging result in loss of property?

No.

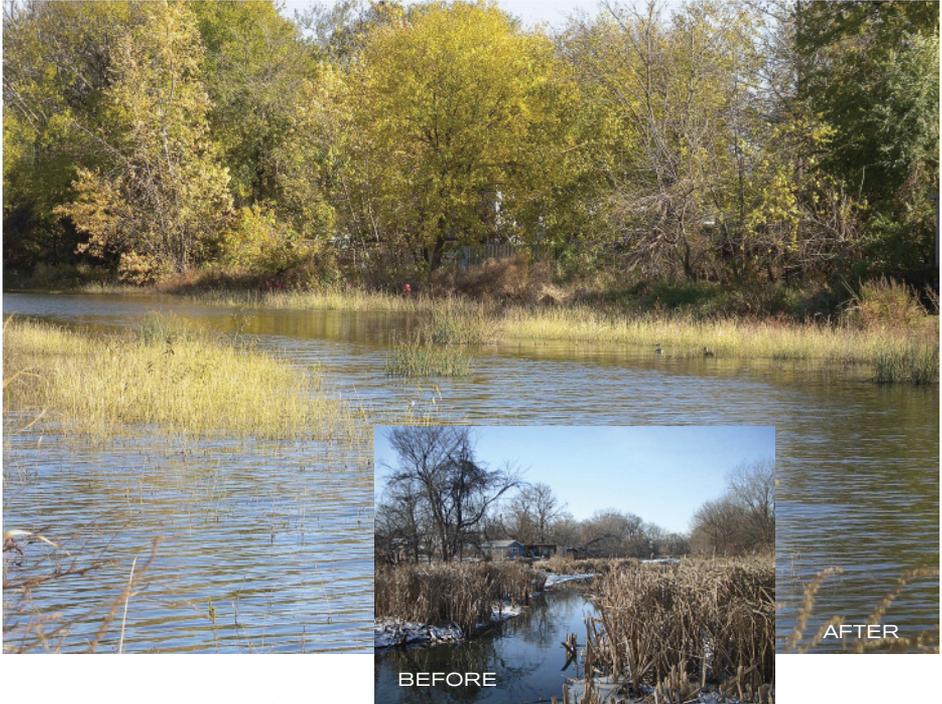
### 15. Can the contaminants being removed “escape” the removal process?

Dredging causes sediment to be “resuspended” or stirred up. To keep the contamination from escaping, the team uses devices, such as silt curtains or sheet piling, to keep the sediment in place so that it can settle back to the river bottom for removal or capping. The project team uses monitoring equipment to make sure the water meets standards. The water is regularly being analyzed for sediment levels.



## 16. Can the contaminants in the dredged sediment become airborne?

The dredged sediment stays fairly wet, even until time for disposal, which reduces the chance of contaminants becoming airborne. Nevertheless, the project team monitors the air to make sure contamination levels meet safety standards. Monitoring results from previous phases of dredging met safety standards. For monitoring results from the US Army Corps of Engineers Indiana Harbor Confined Disposal facility, visit: [lrc.usace.army.mil/Missions/CivilWorksProjects/IndianaHarbor.aspx](http://lrc.usace.army.mil/Missions/CivilWorksProjects/IndianaHarbor.aspx).



## LONG-TERM IMPACTS

### 17. How long will it be before I can fish the river?

With a fishing license from the DNR and access to the shoreline, you can currently catch and release (no consumption) in some parts of the river. As for eating the fish, it could be years before the state agencies of Indiana declare that it is safe. This is a large river, and fish move. Cleaning up one stretch of river does not guarantee that the fish there are safe to eat.

### 18. How will the river cleanup benefit me?

The cleanup will dramatically reduce exposure to contamination from the river, help reduce the stigma of pollution, and make the river more beautiful. There are currently ideas to improve activities like bird watching, walking, and biking along the river, but these are dependent on local funding.



### **19. How can I help?**

Keep yard pollution from getting in the river by using less fertilizer and securing your trash bin lids. Remind neighbors and friends not to dump waste along the river. Volunteer with a local environmental organization like The Nature Conservancy, Save the Dunes, or Shirley-Heinze Land Trust. Attend public meetings and share information about the cleanup and restoration work.

## **OTHER PROJECTS ON THE RIVER**

### **20. What is being done to reduce the combined sewer overflows (CSOs)?**

Currently, municipalities along the river have CSOs, which discharge sewage directly into the river after large storm or water events. Each municipality is working on long-term plans to remove its CSOs.

### **21. Who should I contact with questions about the U.S. Steel Gary Works cleanup or the Corrective Action Management Unit (CAMU)?**

Contact Tammy Ohl, Site Manager for US Environmental Protection Agency, at 312-886-0991.

### **22. Is this project the same as the Indiana Harbor and Ship Canal dredging?**

No, but all agencies are coordinating projects to help restore the river. The Ship Canal is downstream from the Grand Calumet River, and is not a natural habitat area. The US Army Corps of Engineers will dredge about 1.8 million cubic yards of contaminated sediment from the canal over the next 10 years. Dredging began fall 2012. All of this sediment is being placed in a confined disposal facility located on a former abandoned petroleum refinery site. For more information, visit: [lrc.usace.army.mil/Missions/CivilWorksProjects/IndianaHarbor.aspx](http://lrc.usace.army.mil/Missions/CivilWorksProjects/IndianaHarbor.aspx).

# SOME OF THE PARTNERS



PHOTO COURTESY OF THE NATURE CONSERVANCY

