Frequently Asked Questions
About the Upstream Belle Isle Fish Spawning Reef Project

We have compiled the following questions and answers based on questions we have been asked or anticipate about the upstream Belle Isle reef project. Please contact us if you have any questions that are not answered here.

What is a fish spawning reef?
Many fish use rocky areas for spawning – laying and fertilizing their eggs. The spawning reefs that we are installing recreate these natural spawning areas and consist of loose rock strategically placed on the river bottom. The rock will provide a safe place for the eggs to incubate until the fish larvae hatch out and drift down the river. The construction of commercial shipping channels removed much of the rocky habitat that historically existed in the Detroit River.

Where will the reef be built?
After carefully evaluating the fish populations and physical conditions throughout the Detroit River, the project team selected one location to create a fish spawning reef in 2016. The proposed restoration reef is located 2,100 feet upstream from Belle Isle and 1,100 feet offshore from Maheras Gentry park. The upstream Belle Isle reef would be placed between the Fleming Channel and the recreational boating lane that passes just north of Belle Isle. This location is fairly deep, with clean, fast-flowing waters that will keep the spawning reefs clean and will help oxygenate fish eggs that are deposited on the reefs.

What size will the reef be?
The proposed upstream Belle Isle reef is 4 - 5 acres in size: approximately 500 feet wide, 500 feet wide and 2 feet thick.
Who is involved in this project?
We are part of a research team made up of local, state, national and private partners working to bolster local fish populations. The team includes scientists from the U.S. Geological Survey, the U.S. Fish and Wildlife Service, the University of Michigan, SmithGroup JJR and the Michigan Department of Natural Resources. Local construction firms will be invited to bid on the project. Funding is from the federal Great Lakes Restoration Initiative with additional support from the cooperating agencies.

How will the spawning reefs be constructed?
A contractor has not yet been selected for the project so final logistics and construction details have yet to be determined. Previous projects used one of two construction methods: rock was either placed on the river bottom using a crane and clamshell bucket mounted on a barge, or dropped on the river bottom using a side- or bottom-dump barge. A variety of survey methods are used to ensure that rock is placed in the location specified by project plans and the work does not interfere with navigation.

What type of rock is used and where does it come from?
The reef will be made of broken limestone, about 4 to 8 inches in diameter. The construction contractor will identify a local quarry to produce the rock and will select the most cost effective method to transport the material. The rock will be inspected and will not affect water quality.

When will construction begin and how long will it last?
Construction of upstream Belle Isle reef is likely to take place in fall of 2016 and could last 8 - 12 weeks. Construction vessels will only be on the water during daytime working hours, Monday through Friday, with some work on Saturdays possible.

Will the project affect shipping or boating or change the flow of water?
No. The reef will be located in deep waters, 18 – 22 feet, and they will only rise 2 feet above the river bottom. The reefs will not interfere with personal boats or freighters. Project plans will be carefully reviewed by a number of agencies to ensure there will be no impacts to navigation or water flow in the river.
Why is this project needed?
The amount of available spawning habitat, like these reefs, is linked to the number and types of fish available in the St. Clair-Detroit River System. This is particularly true for species that like to spawn on clean, rocky areas in fast-flowing locations as much of that habitat has been altered by human activity in the tributary watersheds and the rivers themselves. Researchers have determined that more spawning habitat is needed to help restore native fish in the rivers.

What species of fish will use the reef?
This fish habitat project was designed to enhance the reproduction of lake sturgeon (a state threatened species), walleye (a popular sport fish) and lake whitefish (a commercially harvested fish). These three species, as well as a number of suckers, catfish and perch, seek out rocky areas in fast-flowing water to deposit their eggs and will likely use the constructed reef.

How will you know the reefs are working?
The project team will perform ongoing monitoring and evaluation of the upstream Belle Isle reef as well as at other completed habitat projects in the St. Clair and Detroit rivers. Project scientists will study the numbers and types of adult fish, eggs and fish larvae in the area before and after the spawning reefs are created. Data is collected at the reef site during spring and fall spawning seasons and compared to reference areas without spawning reefs using scientific methods. In addition, underwater cameras, sonar and scuba divers will be used to evaluate how well the reef material stays clean over time.

Will these projects improve fishing?
Eventually. The reef is designed to enhance the reproduction of specific types of fish such as lake sturgeon. Most of these fish will only spend time on the reefs during spawning season, and therefore, fishing directly above the reef is not expected to be exceptional. However, over time, the projects should improve fishing in the St. Clair River and Lake St. Clair. After many years, the spawning reefs could expand the fishing opportunities for lake sturgeon, the largest fish in the Great Lakes that currently provides a unique — but tightly regulated — fishing experience.

How else will these projects benefit people?
This spawning reef project is part of a large effort to remediate the Detroit River, and remove the area from the list of Great Lakes Areas of Concern. Despite a variety of changes to the shoreline and water quality, the St. Clair River is home to the largest remaining population of lake sturgeon in the Great Lakes. Projects like this help improve the region's environment and unique fish populations, which can boost the region's identity and reputation and ultimately help attract talented people and businesses.

Where can I find more information?
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