



BROWN BRIDGE DAM REMOVAL PROJECT – Q&A

1. **What is the grant that has been awarded?**

The Great Lakes Fishery Trust has awarded \$1 million to the City of Traverse City that will be used to remove Brown Bridge Dam on the Boardman River. The Great Lakes Fishery Trust was created in 1996 to compensate the residents of Michigan for the lost use and enjoyment of the fishery resources of Lake Michigan caused by the operation of the Ludington Pumped Storage Plant located in Ludington, Michigan. The Fishery Trust awards grants focusing on research to support Great Lakes fisheries; rehabilitation of Lake Trout, Lake Sturgeon and other fish populations; protection and enhancement of fisheries habitat; public education; and projects that provide access to fisheries.

2. **What will the grant pay for?**

The grant will help pay for the removal of the Brown Bridge Dam and the restoration of 1.5 miles of cold water trout stream, 156 acres of wetlands and 25 acres of upland habitat. This is the first of three dams that will be removed on the Boardman River. When all three dams are removed, it will result in the restoration of over 3 miles of cold water stream, 253 acres of wetlands and 57 acres of upland habitat.

3. **What work will take place?**

The dam removal project will involve: engineering and design, including an analysis of methods to control sediment transport during dam removal; removal of the dam, including demolition of the powerhouse and spillway and breaching the dam; and restoration in and around the watershed. Project expenditures include:

- \$200,000: Final design for drawdown, sediment management, bottomlands management, monitoring, dam removal, restoration, and safety. Permitting for dam removal.
- \$700,000: Project management, remove powerhouse and spillway, manage sediment, restoration, and monitoring.
- \$100,000: Development and implementation of a long-term restoration, monitoring, and economic development plan, community outreach and education.

4. **What is involved in “breaching” the dam?**

Breaching of the dam involves removal of the powerhouse and spillway, and stabilizing and grading the area where the river exits the impoundment.

5. **Will this grant cover the entire cost for removal of Brown Bridge Dam?**

The preliminary estimated cost for removal is over \$2 million. The removal cost estimate will be refined through a detailed planning and design process, but this grant will be combined with other existing funding sources to cover the total cost of the Brown Bridge Dam removal and restoration.

6. **What is the timeline for removal of Brown Bridge Dam?**

Engineering, design, and permitting work will begin in early 2011. The drawdown of the impoundment will begin no later than July 30, 2011, and deconstruction will take place in 2012. The removal and restoration project is expected to take two years to complete.

7. **Why was Brown Bridge Dam selected to be the first dam to be removed?**

The removal of Brown Bridge Dam offers the most significant ecological benefits. This project alone will restore over half of the total wetland acreage, and approximately half of the total stream mileage contained within the entire Boardman River Dams removal project.

8. **What impact will this project have on the Brown Bridge Quiet Area?**

The dam and its 191-acre impoundment are within the 1,310-acre Brown Bridge Quiet Area that is owned by the City and managed by the Grand Traverse Conservation District. As the project progresses, visible physical changes will be seen on stream banks and a clear, cold and uniquely high gradient river will emerge. Improved fish and wildlife habitat and enhanced recreational opportunities will result as the river evolves and finds its stable form in the areas within and nearby the impoundment basin.

9. **What will happen to Brown Bridge Pond?**

The existing impoundment, or pond, will no longer exist after deconstruction. Through restoration of bottomlands, the entire 191-acre impoundment will revert to a free-flowing natural river.

10. **What will happen to the hiking trails, boat launch, parking areas, and overlooks around Brown Bridge Pond?**

The recreational amenities around Brown Bridge Pond are maintained by the Grand Traverse Conservation District in accordance with a Brown Bridge

12/2/10

Quite Area Recreation Plan. The vision of the plan is to “Restore, preserve and protect the integrity of the natural environment, including its inhabitants, yet allow managed public use for generations to come.” The dam removal project will create new and expanded recreational amenities, and appropriate

modifications will be assessed through a bottomlands management planning process.

1 1. **Will the Brown Bridge Quiet Area be closed during deconstruction?**

Efforts will be made to continue to accommodate safe access to recreational activities in the Quiet Area throughout the course of the project. Some areas may be restricted during various stages of the project due to safety concerns.

1 2. **Why can't Brown Bridge, and the other dams, continue to be used to generate electricity?**

The results of an extensive study show that while the potential exists for hydro generation on the Boardman River, the cost to license, repair, upgrade, and maintain the existing dams in order to comply with state and federal rules and regulations outweighs the potential revenue from selling electricity generated at the dams. The estimated cost of restoring hydroelectric power generating capacity is \$8-\$15 million. The estimated revenue from selling electricity is \$8.5 million over thirty years, which may not recover the costs of dam restoration. The decision to remove the dams was made after methodical evaluation of all available data and options, and a comprehensive public input process.

1 3. **Will the removal of Brown Bridge, and the other dams, increase the potential for flooding during periods of high water on the Boardman River?**

The dams do not have the capacity to store large amounts of water to provide for flood control, and are not designed to do so. As long the dams are in place there is a chance of catastrophic flood damage if the dams fail. If the dams are removed the chance of a catastrophic flood due to potential dam failure is eliminated.

1 4. **What will the impact be on wildlife, such as the trumpeter swans and loons that live on Brown Bridge pond?**

The impact on wildlife will be carefully monitored throughout the project, but no significant impact is expected. With 97 lakes in the Boardman River watershed, there is sufficient habitat to support any wildlife that would be displaced and new wildlife habitat will develop as the impoundment reverts to a free-flowing, cold-water river.

12/2/10

15. Are there any other environmental risks, such as sediment going into the Boardman River?

The majority of sediment will remain in the impoundment area, and stream banks will be stabilized and restored in areas of concern. Environmental concerns will be carefully monitored during the project, but there is no significant risk of environmental damage as a result of the dam removal.

16. Who is in charge of the dam removal project?

The City and County are ultimately responsible and accountable for the dam removal project. The City owns Union Street and Brown Bridge Dams, and the County owns Sabin and Boardman Dams. In 2009, the City and County passed resolutions to allow the Implementation Team (IT) to make recommendations and decisions concerning overall planning and direction of the dam removal process. The IT is comprised of the dam owners and key agency stakeholder representatives. All IT meetings are open to the public and subject to the Open Meetings Act.