

Traverse City, MI Boardman River Dams Project

Description

The Boardman River Dams Project is a multidisciplinary effort to assess the benefits and detriments of dam removal and retention on the Boardman River in Grand Traverse County, MI. An Implementation Team has been established to facilitate a fate of the dams study that will incorporate public, tribal, local governmental, state, federal, and non-profit groups participation in addressing the environmental, economical, and social effects of removing and retaining Union Street, Sabin, Boardman, and Brown Bridge Dams. The information generated by the Implementation Team will be used by the dam owners (Grand Traverse County and the City of Traverse City) to make an informed decision on the fate of the dams in 2007.

Background

The Boardman River watershed encompasses 287 square miles in the northwestern lower peninsula of Michigan. The river flows through the cities of Kalkaska and Traverse City and empties into West Grand Traverse Bay. The Boardman contributes approximately one-third of the water volume to the Bay, which was recognized in 1998 by the U.S. EPA as one of the most pristine freshwater bays in the world. The Boardman River is considered one of the top-ten trout streams in Michigan with more than 36 of the system's 179 river miles designated Blue Ribbon river sections. It is also a "*State Natural River*" which provides additional protective zoning. The river benefits from considerable public land ownership (approximately 50%) along the corridor. It has an exceptional brook and brown trout fishery, and in the lower reaches, supports substantial runs of migratory fish from Lake Michigan such as steelhead, salmon, brown trout, and lake trout.

Despite these distinctions, the full potential of the river is limited by historic and current activities. Originally known as the "Ottawa" after the local band of Native Americans, the river's name was changed in recognition of timber baron Captain Harry Boardman who was in the area for three years (1848-51), before selling his timber rights to the eventual real timber barons of the area, Hanna & Lay. Like many rivers during the mid-to late-1800's the Boardman served as a conduit for millions of logs during the height of the logging era.

These activities had the now familiar, but devastating impacts on river habitat by incising the channels and removing in-stream debris that provided structure and cover. These activities also helped drive Michigan's native grayling fishery to extinction.

In the late 1880's, five dams were constructed on the Boardman River, including Boardman Dam in 1894, Union Street Dam in 1867, Sabin Dam in 1906, Keystone Dam in 1908 and Brown Bridge Dam in 1921.

In September 1961, Keystone Dam washed out, nearly taking Boardman and Sabin Dams as well. Over the years, several other smaller dams on tributaries to the Boardman also failed, including Captain Boardman's Mill Dam on Kid's Creek and a mill dam in Mayfield on Swainston's Creek.

Of the four remaining dams, three continue to produce electrical power today. All three dams are operated by Traverse City Light and Power (TCLP). Two of the dams are leased from Grand Traverse County, the other is owned by the City of Traverse City.

Traverse City Light and Power has announced that they will cease power generating activities at these sites because the operations are no longer economically viable. As a result, decisions will need to be made by the owners of the dams – Grand Traverse County and the City of Traverse City – about what the fate of the dams will be.

Under this project, the Boardman could become the site of one of the first system-wide, comprehensive rehabilitation projects in Michigan built around the restoration of a more natural hydrologic regime. This would be accomplished if decisions are made to remove up to four dams. In that event, restoration of these impoundments to riverine systems would occur and programs would be designed and implemented involving the ecological, institutional, educational and recreational factors that influence the sustainability of the river system.

The Boardman River has been the site of numerous restoration and habitat enhancement projects over the past fifty years. These activities have been organized to work around and, to some extent, to mitigate impacts of one of the largest disruptors to the ecologic and hydrologic processes within the Boardman River system, the four large dams.

Due to ongoing changes in the economics of power generation, there exists a unique opportunity to address the impacts of these dams and their associated impoundments by removal of some or all of the dams and restoration of the riverine systems currently inundated by the impoundments. The Implementation Team was established to: (1) support a community-based process to address the fate of these dams and impoundments; and (2) develop resources for the long-term sustainability of the entire river system, including dam removal and restoration if that is the course recommended. Collectively, this initiative will benefit the 287 square mile Boardman River watershed as well as communities in the Great Lakes Basin and nation that confront similar issues involving potential dam removal and the restoration and long-term sustainability of a cold water river system.

Results

The Implementation Team recognizes and supports a community-based process of public participation, coupled with good science and sound decisions that will ultimately lead to recommendations and actions by Grand Traverse County and the City of Traverse City that will determine the fate of the dams.

If these dams are removed, it would reconnect 160 miles of river habitat and restore over 26 miles of mainstem of the Boardman to a free-flowing condition, improving the river habitat of five miles of currently impounded water. It would be the largest dam removal project ever undertaken in Michigan and the near simultaneous removal of three to four dams in the same system has few precedents regionally or nationally. The project would provide a valuable demonstration of dam removal as a river restoration tool with the extent and quality of cold water being improved to be a real boon to the resource. In Michigan alone, there are 2,500 dams and in the nation 77,000 dams with a head of six feet or greater.

The Implementation Team is just as concerned with the Boardman River Dams process as the potential outcomes. Therefore, the Implementation Team created a Boardman Dams Committee that any group, organization, agency or individual may join to become actively involved in the fate of the dams decision-making process and to keep informed of issues, research, plans, meetings and other matters involving the Boardman River Dams Project. This discussion will involve consideration of issues and concerns associated with dam removal, including those of riparian owners on the ponds created by the dams, as well as riparian owners downstream from the dams. The Boardman Dams Committee will also be a forum for:

- Coordinating review of the Preliminary Restoration Plan.
- Recommending participation and coordinating review of an environmental assessment, prepared under the National Environmental Policy Act.
- Recommending issues, needs and factors to be included in a request for proposals for an engineering and feasibility plan.
- Developing subcommittees to explore and develop recommendations on significant matters, including a technical subcommittee on dam options and issues.

Currently, all options involving the fate of the dams remain open, including leaving them in place or removing some or all of the dams. All members of the Implementation Team are also members of the Boardman River Dams Committee.

The Boardman River is well suited to be a showcase model for educating the public on the pros and cons of dam removal and river restoration. It is through this process that communities throughout the nation will learn how to engage interests in determining the fate of rivers and river systems that profoundly influence the quality of life. Traverse City, located at the mouth of the river, and the surrounding area, are major tourist destinations, with fresh water resources being the primary draw for the \$587 million tourism economy, which includes more than 2 million annual recreation user days on the Boardman. In addition to the tourism economy, the region has an agricultural, manufacturing and service industry base which is largely influenced by the Great Lakes and its watersheds.

In the event that the City and County opt for dam removal, the conditions in the Boardman are ideal for advancing a model dam removal effort with capable and

motivated partners, excellent political support at the local, state, and national levels, an engaged community with a well-developed appreciation and awareness of natural resource and conservation issues, and the ability to garner the financial resource necessary to effectively implement a community education and dam removal process.

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Pictures

