

## The Boardman: A River Reborn Project Fact Sheet

### What is The Boardman: A River Reborn Project?

In 2005, Traverse City Light and Power determined that it was not economically feasible to produce hydropower at the Sabin, Boardman and Brown Bridge dams. Dam owners – the City of Traverse City and the Grand Traverse County – organized the Boardman River Dams Committee to gather community feedback, encourage community involvement and manage an engineering and feasibility study to assess the environmental, economical and social benefits and detriments of retaining, modifying and removing the Boardman River dams. After thorough review and discussion the dam owners decided to remove the Sabin, Boardman and Brown Bridge dams and modify the Union Street dam<sup>i</sup>. Completion of this project will allow the Boardman River to return to a more natural state as a free-flowing, cold-water river<sup>ii</sup>.

### Facts at a Glance

#### Funding

- The initial cost estimate to complete the project is from \$5 million to \$8 million<sup>iii</sup>. The estimate will become refined through further engineering and design analysis. Restoring hydroelectricity on the dams would cost between \$8 million to \$15 million<sup>iv</sup> at present value. If hydroelectricity were restored, combined, the dams have an estimated revenue of \$8.6 million over the next 30 years<sup>v</sup>. Since the useful life of a dam is limited, this does not include the cost of maintaining the dams and bringing them up to code over the next 30 to 50 years.
- Funding is being pursued through federal, state, tribal, local government and private funding sources.

#### Benefits

Removing the dams and modifying the Union Street dam has many environmental, community, regional and educational benefits. Many are highlighted below.

#### Environmental

- Restore the river to a more natural state as a free-flowing, cold-water river.
- Enhance and restore habitat for native and naturalized fish species and organisms preferring cold water<sup>vi</sup>.
- Restore over 3.4 miles and reconnect 160 miles of high-quality river habitat<sup>vii</sup>.
- Restore more than 250 acres of wetlands and nearly 60 acres of upland habitat<sup>viii</sup>.

#### Community

- Impact the local economy by an estimated \$3 million from increased recreation, tourism and property values<sup>ix</sup>.
- Promote business growth and new business opportunities because of increased interest in water-related activities, including fishing, kayaking, canoeing and tubing, in addition to other economic growth opportunities.
- Support the long-term goals of the Grand Vision guiding principle of “protecting and preserving the water resources, forests, natural areas and the scenic beauty of the region<sup>x</sup>.”

#### Regional

- Engage all interests, cultivating a sense of “ownership” in study process and outcome, and ensuring that the process is community driven.
- Secure unparalleled cooperation among federal, tribal, state and local government agencies and nonprofit entities.

- Initiate the development of a model that will be transferable for use by other communities faced with similar issues.
- Document and archive – in detail – the study process as it unfolds.
- Fully integrate environmental, engineering, economic, social and cultural considerations into a single study.
- Assemble a diverse group of individuals who are building their capacity to engage in public process, community with decision-making entities, contribute to the work of local units of government and nonprofit organizations and resolve other issues that may face the community in the future.

#### Educational

- Create an on-the-ground laboratory for local schools to participate in place-based environmental learning initiatives
- Support a variety of scientific research initiatives to assess the environmental, economic and social effects of dam removal and initiate a working model that will be transferable for use by other communities faced with similar issues

#### What to Expect

- Improved fish and wildlife habitat and enhance recreational opportunities as the river evolves and returns to a stable form in the areas within and nearby the impoundment basins.
- Increased opportunities to fish, kayak, canoe, tube and participate in other water related activities.

#### **The Implementation Team**

The Implementation Team (IT) was formed by the dam owners in 2005 to provide oversight of The Boardman: A River Reborn project. The IT is responsible for making decisions concerning overall planning and direction of the current dam removal process, including, engaging professional services that will be involved in dam removal and modification work.

The IT is comprised of individuals representing dam owners and 12 organizations, providing expertise in fisheries and wildlife biology, dam safety, hydroelectric facility relicensing, local governments, energy generation capacity, wildlife and plant habitat conservation, community leadership and management, area watershed preservation, road system management, environmental conservation and land preservation.

The City of Traverse City and the Grand Traverse County chose to keep the IT together to act as the governing body of the project. The IT meets on an ongoing basis and remains in close communication with the project manager.

The mission of the IT is to provide direction and expertise for the future of the dams on the Boardman River. They are committed to open communication and implementing decisions made by the dam owners.

Organizations providing expertise and direction:

- Grand Traverse Band of Ottawa and Chippewa Indians
- City of Traverse City
- Grand Traverse County
- Michigan Department of Natural Resources and Environment
- Michigan Hydro Relicensing Coalition
- Traverse City Light and Power
- U.S. Fish and Wildlife Service

Ex Officio Members

- Conservation Resource Alliance
- Grand Traverse Conservation District
- Grand Traverse County Road Commission
- Rotary Camps and Services
- Watershed Center Grand Traverse Bay

**Current Project Manager**

The Conservation Resource Alliance (CRA) has been selected as the project manager for The Boardman: A River Reborn project. The CRA is managing all aspects of this project, including developing and implementing an action plan, securing and managing project funding, helping coordinate contact with all media, overseeing meetings and preparing necessary documents, and selecting and managing all contractors for implementing the action plan.

The CRA is a private, not-for-profit corporation established in 1968. Their mission is the “sensible stewardship of the land” and they are known for collaborative land-use solutions among private landowners, government agencies and commercial businesses. The intent of CRA is not to litigate to prevent development, but to foster locally driven solutions that will preserve or develop land in a positive manner for all parties involved. Instead of promoting further regulations or lawsuits, their aim is to foster partnerships in order to understand consequences, alter behavior and create win-win cooperative efforts.

## **Timeline of The Boardman: A River Reborn Project**

2005

- Boardman River Dams Committee formed (BRDC)
- Preliminary Restoration Plan completed
- Boardman River Stream Assessment started
- Settlement Agreement and IT formed
- Community input gathered to form the project Scope of Work

2006

- Request for Qualifications for Engineering and Feasibility Study released
- Project website unveiled
- Consultant Team selected to conduct Engineering and Feasibility Study

2007

- Engineering and Feasibility Study started

2008

- Engineering and Feasibility Study completed
- BRDC recommendation to the City of Traverse City and the Grand Traverse County

2009

- City of Traverse City and Grand Traverse County decisions on the fate of the dams
- Conservation Resource Alliance hired

2010

- Dam removal funding secured
- United States Army Corps of Engineers assistance requested by the City of Traverse City and Grand Traverse County

2011 – 2013

- National Environmental Policy Act initiated
- Engineering and design work initiated

2013 – 2018

- Qualified engineering firms and contractors chosen to complete the work
- Dams removed and Union Street dam modified
- River and surrounding land restoration plan implemented

### **Project Stages**

#### Engineering/Planning

The IT is currently in the planning stage, working hard to identify required permits and fundraising opportunities.

#### Deconstruction / Modification

Each of the three dams will follow approved plans for deconstruction after all engineering plans and drawings are finalized, required permits are obtained and funds are secured. The Union Street dam will follow approved plans for dam modification.

### Restoration

The restoration process will parallel the deconstruction of the Sabin, Brown Bridge and Boardman dams and modification of the Union Street dam. As the river changes, the IT will follow a detailed plan to promote restoration of fish and wildlife species and their associated habitat.

### **The Boardman River**

The Boardman River is located in Grand Traverse and Kalkaska Counties in Northwest Michigan and includes 160 miles of river and tributary streams. There are a total of 287-square miles in the watershed, producing one-third of the water volume of Grand Traverse Bay in Traverse City and draining 182,800 acres of land<sup>xi</sup>. An estimated 2 million visitors<sup>xii</sup> use the Boardman River annually for recreation purposes. Many of these visitors come to the river to fish since the river is one of the top ten trout stream in Michigan and 36 river miles are designated as Blue Ribbon river sections<sup>xiii</sup>.

### Boardman River Dams

In the late 1800s Queen City Light and Power (now Traverse City Light and Power) first laid out locations for five dams for hydropower production. Four of the dams are still intact, though none are currently producing hydropower.

#### *Union Street Dam*

Location: River mile 1.5 (upstream from the river mouth)  
Constructed: 1867  
Material: Earthen materials and steel sheet pile  
Original Use: Supply power to a now defunct flourmill  
Current Use: Water level control structure for the Boardman Lake  
Owner: City of Traverse City

#### *Sabin Dam*

Location: River mile 5.3 (upstream from the river mouth)  
Constructed: 1902  
Rebuilt: 1930  
Material: Earthen material and concrete  
Impoundment: Sabin Pond, drainage area of 269 square miles  
Original Use: Generating hydropower  
Current Use: Water level control structure  
Owner: Grand Traverse County

#### *Boardman Dam*

Location: River mile 6.1 (upstream from the river mouth)  
Constructed: 1894  
Rebuilt: 1930  
Material: Earthen material and concrete  
Spillway: Boardman Pond (a.k.a. Keystone Pond), drainage area of 267 square miles  
Original Use: Generating hydropower  
Current Use: Water level control structure  
Owner: Grand Traverse County

#### *Brown Bridge Dam*

Location: River mile 18.5 (upstream from the river mouth)  
Constructed: 1921  
Material: Earthen material and concrete  
Impoundment: Brown Bridge Pond, drainage area of 151 square miles

Original Use: Generating hydropower  
Current Use: Water level control structure  
Owner: City of Traverse City

*Keystone Dam*

Location: Along Keystone Road

Constructed: 1908

Deconstructed: The dam washed out in 1961 and nearly took out the Boardman and Sabin dams<sup>xiv</sup>

Original Use: Generating hydropower

Current Use: Reminder of what can happen if no action is taken

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<sup>i</sup> Boardman River Dams Committee, Final BRDC Recommendations, (22, Jan. 2009): 8.

<sup>ii</sup> Boardman River Dams Committee, “Recommendations Concerning Alternative Futures for the Boardman River Dams,” Engineering and Feasibility Study: Fact Sheet Alt 81, (16 Dec. 2008): 4.

<sup>iii</sup> Boardman River Dams Committee, Final BRDC Recommendations, (22, Jan. 2009): 9.

<sup>iv</sup> Environmental Consulting & Technology, Summary of Hydroelectric Power Generation at the Boardman Dams, (4 March, 2009): 2.

<sup>v</sup> Environmental Consulting & Technology, Summary of Hydroelectric Power Generation at the Boardman Dams, (4 March, 2009): 2.

<sup>vi</sup> Boardman River Dams Committee, “Recommendations Concerning Alternative Futures for the Boardman River Dams,” Engineering and Feasibility Study: Fact Sheet Alt 81, (16 Dec. 2008): 4.

<sup>vii</sup> Implementation Team, Traverse City Dam Project, (2005): 3.

<sup>viii</sup> Boardman River Dams Committee, “Recommendations Concerning Alternative Futures for the Boardman River Dams,” Engineering and Feasibility Study: Fact Sheet Alt 81, (16 Dec. 2008): 2.

<sup>ix</sup> Implementation Team, Boardman River Dams Implementation Team Questions, (15 July, 2010): 4.

<sup>x</sup> The Grand Vision, The Grand Vision, (2009): 3.

<sup>xi</sup> Grand Traverse Conservation District, Boardman River Project, 2009, Web. 13 June 2010.  
<<http://boardmanriver.org/>>.

<sup>xii</sup> Implementation Team, “Using Public Process to Determine the Fate of the Dams,” Orientation Packet, (2006): 1.

<sup>xiii</sup> Implementation Team, Preliminary Restoration Plan, PRP, (2006): 1.

<sup>xiv</sup> Implementation Team, Traverse City Dam Project, (2005): 2.