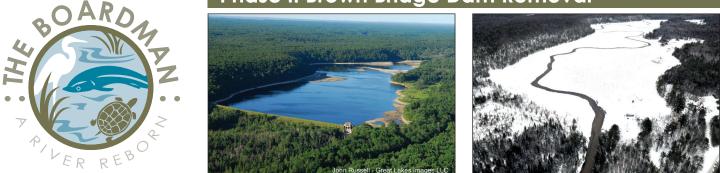
# Phase I: Brown Bridge Dam Removal



### Brown Bridge Dam Removal By the numbers

- Re-established 2.5 miles of river channel
- Re-established 12.2 acres of floodplain
- Moved 260,000 cubic yards of sediment
- Placed 985 linear feet of woody debris for bank stabilization
- Placed 5,100 linear feet of woody debris for in-stream habitat

# BROWN BRIDGE DAM REMOVAL AND EARLY RESTORATION FUNDING

## **MAJOR GRANTS 2010-2012**

TOTAL	\$5,728,547	
U.S. Fish & Wildlife Service	\$500,000	National Fish Passage & GL Basin Partnership (GLRI)
U.S. Fish & Wildlife Service	\$1,091,386	Great Lakes Fish & Wildlife Restoration Act (GLRI)
U.S. Environmental Protection Agency	\$533,161	(GLRI)
Oleson Foundation	\$25,000	
National Fish and Wildlife Foundation	\$1,150,000	Sustain Our Great Lakes (GLRI)
MDEQ EPA Section 319 Restoration	\$80,000	
Great Lakes Fishery Trust	\$1,000,000	
Bureau of Indian Affairs	\$1,349,000	(GLRI*)
MAJOK GRANIS 2010-2012		

## OTHER FUNDING SOURCES - committed for related activities in the Boardman watershed

amec<sup>v</sup>

Rotary Camps & Services of Traverse City	
The Frey Foundation	
City of Traverse City	
Grand Traverse County	
The Conservation Alliance	
Patagonia	
Trout Unlimited	
Adams Chapter TU	
DTE Energy Foundation	

Federal Highway Administration/Michigan Department of Transportation U.S Fish & Wildlife Service – Tribal Wildlife Grant NOAA – Coastal Counties Grant U.S. Fish & Wildlife Service – Partners for Fish & Wildlife Habitat Grand Traverse Band – 2% Allocation Grand Traverse County Bureau of Indian Affairs – Manpower Funding Michigan DEQ Coastal Programs U.S. Army Corps of Engineers

\* GLRI – Great Lakes Restoration Initiative, the historic federal initiative to restore the Great Lakes ecosystem. GLRI represents the largest investment in the Great Lakes in over two decades to ensure the sustainability and economic vitality of the lakes and surrounding eight-state region.

Source: Conservation Resource Alliance

# **Project Team**









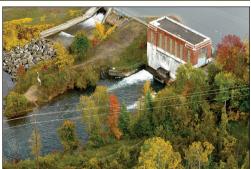


- Total project cost: \$4.2 million
- Construction ~ 5 months
- Total hours ~ 21,300
- Partner hours ~2,500



# Phase II: Boardman & Sabin Dam Removal





### Phase II

- Replace Cass Road Bridge (to west of current location)
- Re-align the river between Boardman and Sabin Dams to its historic channel
- Remove Boardman Dam
- Remove Sabin Dam
- Restore stream channel

#### **Partners**

- U.S. Army Corps of Engineers, Detroit District
- Grand Traverse County Road Commission
- Michigan Department of Transportation
- Implementation Team

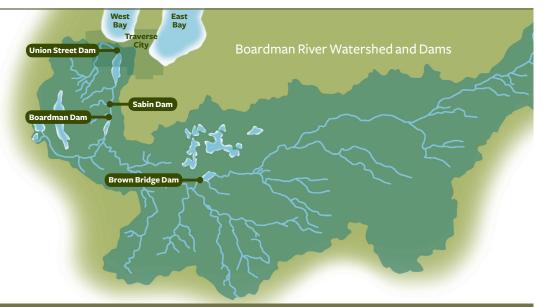
#### Phase II Cost Estimate

Dam removal/restoration: \$10.0 million Bridge replacement: \$2.9 million (Source: U.S. Army Corps of Engineers, Detroit District, November 2012)

### **Phase II Timeline**

2010-2012: Field studies, preliminary engineering and analysis 2013: Final design, bidding, permitting 2014-2015: Construction

2010 - Ongoing: Monitoring



For more information and updates visit TheBoardman.org