



The Boardman River Reborn

www.theboardman.org



2019-2021 River Care™ Projects

Carp Lake River Watershed

1. Carp Lake River/Gill Rd road/stream crossing improvement
2. Carp Lake River/Munger Rd road/stream crossing improvement
3. Carp Lake River/Reed Rd road/stream crossing improvement

Maple River Watershed

4. Van Creek/Bike Trails road/stream crossing improvement
5. Cold Creek/Ely Rd road/stream crossing improvement
6. E. Branch Maple River/Douglas Lake Rd road/stream crossing improvement
7. E. Branch Maple River/Robinson Rd road/stream crossing improvement
8. Lake Kathleen/Woodland Rd/Two-Track post dam restoration & monitoring

Jordan River Watershed

9. Chestonia Bridge post-restoration streambank stabilization and instream habitat improvements
- *Prioritize next improvement sites

Boyne River Watershed

- *Prioritize next improvement sites

Boardman River Watershed

10. Sabin Pond post dam restoration & monitoring
11. Boardman Pond post dam restoration & monitoring
12. Streambank stabilization and instream habitat improvement
 - *Boardman River streambank erosion and road/stream crossing inventory
 - *Boardman River Redd Survey

Platte River Watershed

13. Tributary to the North Branch of the Platte River/Skinner Rd road/stream crossing improvement
14. North Branch of the Platte River/Dymond Rd road/stream crossing improvement
15. Little Platte Lake Creek/Saffron Rd road/stream crossing improvement
16. Upper Platte River streambank erosion and instream habitat improvements
17. Kinney Creek/N. Carmean Rd road/stream crossing improvement

Betsie River Watershed

18. Mason Creek/E. Duck Lake Rd road/stream crossing improvement
19. Betsie River floodplain improvements

Manistee River Watershed

20. Soper Creek Trout Farm post-restoration & monitoring
21. Hinton Creek/5 1/2 road/stream crossing improvement
 - *Manistee River Tributary streambank erosion and road/stream crossing inventory

Bear Creek Watershed

22. Bear Creek streambank stabilization and instream habitat improvements

Pine River Watershed

23. Silver Creek/Pine River streambank stabilization and instream habitat improvements

Little Manistee Watershed

24. Little Manistee River streambank stabilization and instream habitat improvements
25. Syers Lake dam removal
 - *Little Manistee River streambank erosion inventory

Big Sable Watershed

26. Phase III Big Sable River streambank stabilization and instream habitat improvements

Pere Marquette Watershed

27. PM railroad streambank stabilization
28. Streambank stabilization and instream habitat improvements
29. Blood Creek/72nd road/stream crossing improvement
30. Blood Creek/Broadway St road/stream crossing improvement
31. Pere Marquette River unnamed tributary/Mac Rd road/stream crossing improvement
32. Scottville Riverside Park streambank stabilization
33. Nichols Lake fish habitat project

Lincoln River Watershed

- *Lincoln River Watershed road/stream crossing inventory



Boardman Dam & Pond

Photo by Jim Anderson
October 2012



Boardman Dam Removal

July 2017

Relic
river
location



Boardman River Returned



October 2018

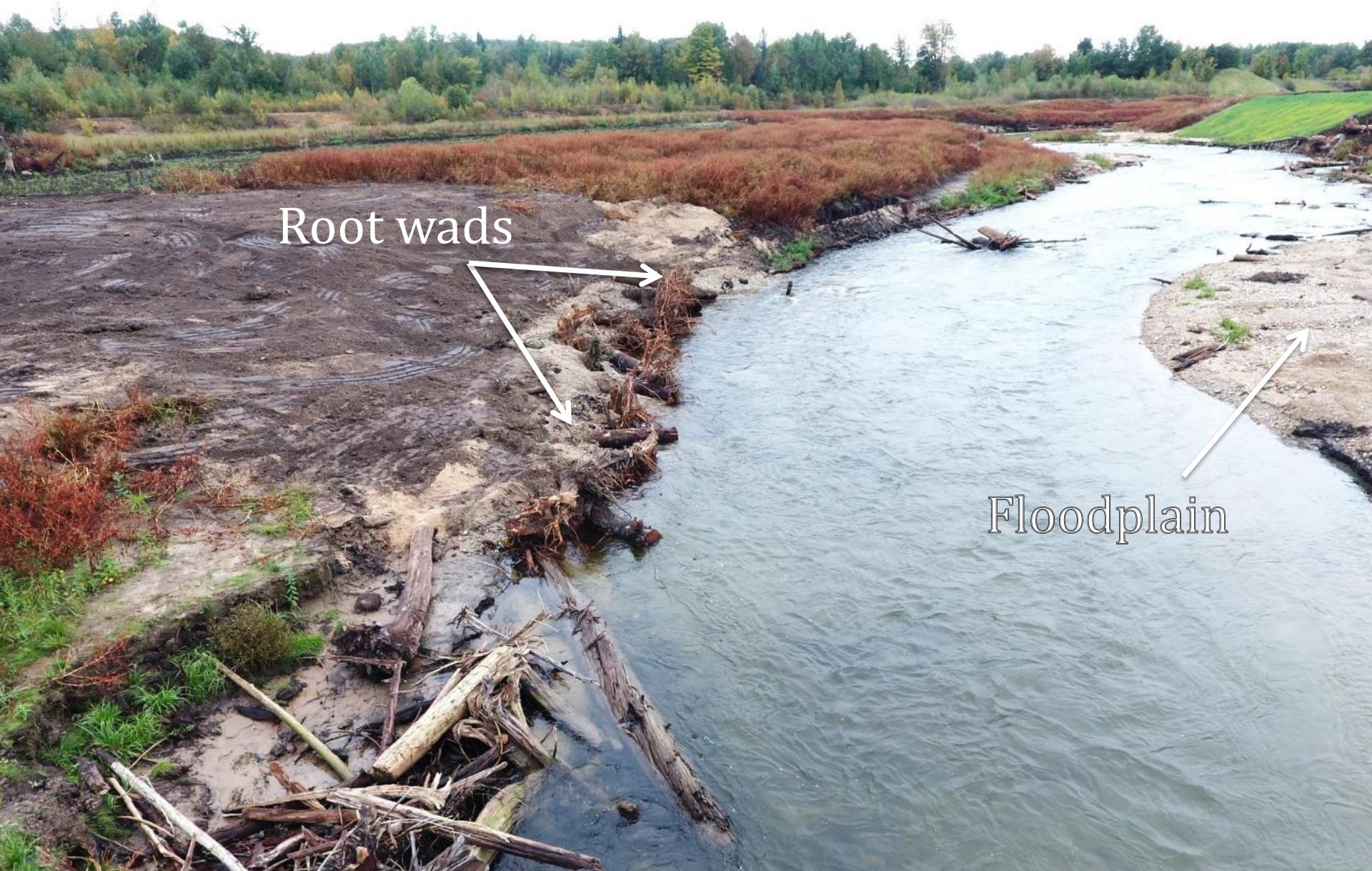
Post-restoration needs



Wood work



Streambank protection & habitat



Stabilizing creeks & seeps



Slope stabilization



Invasive species control



NER Streambank Stabilization



After



Sabin Dam & Pond



Photo provided by John Russel
October 2012

Sabin Dam Removal



October 2018

Historically, river bottom was dredged down 8' in this section



Channel construction and bank stabilization measures



River returned...



Wrap up in 2019



Project Overview

January 2019

Feasibility Study/Planning	\$3,000,000
Brown Bridge Dam Removal	\$4,400,000
Boardman Dam Removal	\$10,500,000 (est.)
Robbins Bridge (Cass Road)	\$3,310,000
<u>Sabin Dam Removal</u>	<u>\$5,700,000 (est.)</u>
Total Construction/Engineering	\$26,910,000

Non-Construction Tasks* **\$300-350K per year**

*Project management, grant and contract administration, monitoring, communications and outreach



Project Team

IT

- Grand Traverse Band
- City of Traverse City
- Grand Traverse County
- Michigan DEQ
- Michigan DNR
- Michigan Hydro Relicensing Coalition
- Traverse City Light & Power
- U.S. Fish & Wildlife Service

Ex-Officio IT & Partners

- Conservation Resource Alliance
- Grand Traverse Conservation District
- Grand Traverse County Road Commission
- US Army Corps of Engineers
- Natural Resources Conservation Service
- Watershed Center, Grand Traverse Bay
- Garfield Township



CRA Roles & Responsibilities

- Fund development & coordination
- Facilitation of IT & partners
- Serve as GT County's point of contact for engineer and USACE
- Project documentation & dissemination
- Post-restoration, monitoring & invasive species work outside USACE scope



Fund Development

- Total ~ \$27 million
- Army Corps \$11 million
- GTB grants \$3 million
- CRA grants \$8 million



Thank you to the Funders!

- Bureau of Indian Affairs
- Great Lakes Fishery Trust
- National Fish & Wildlife Foundation
- U.S. Fish & Wildlife Service
- U.S. Environmental Protection Agency
- U.S. Army Corps of Engineers
- MDEQ, MDNR & MDOT
- Grand Traverse Band
- NRCS
- Frey Foundation
- Brook by Foundation
- Oleson Foundation
- Traverse City Rotary
- City of Traverse City
- Grand Traverse County
- GT Road Commission
- Conservation Alliance
- DTE Energy Foundation
- Trout Unlimited
- Patagonia
- And more.....



City/County Contributions

~\$1.1 million

\$185,000 each consultant costs
(\$20K per year; \$25K in 2009)

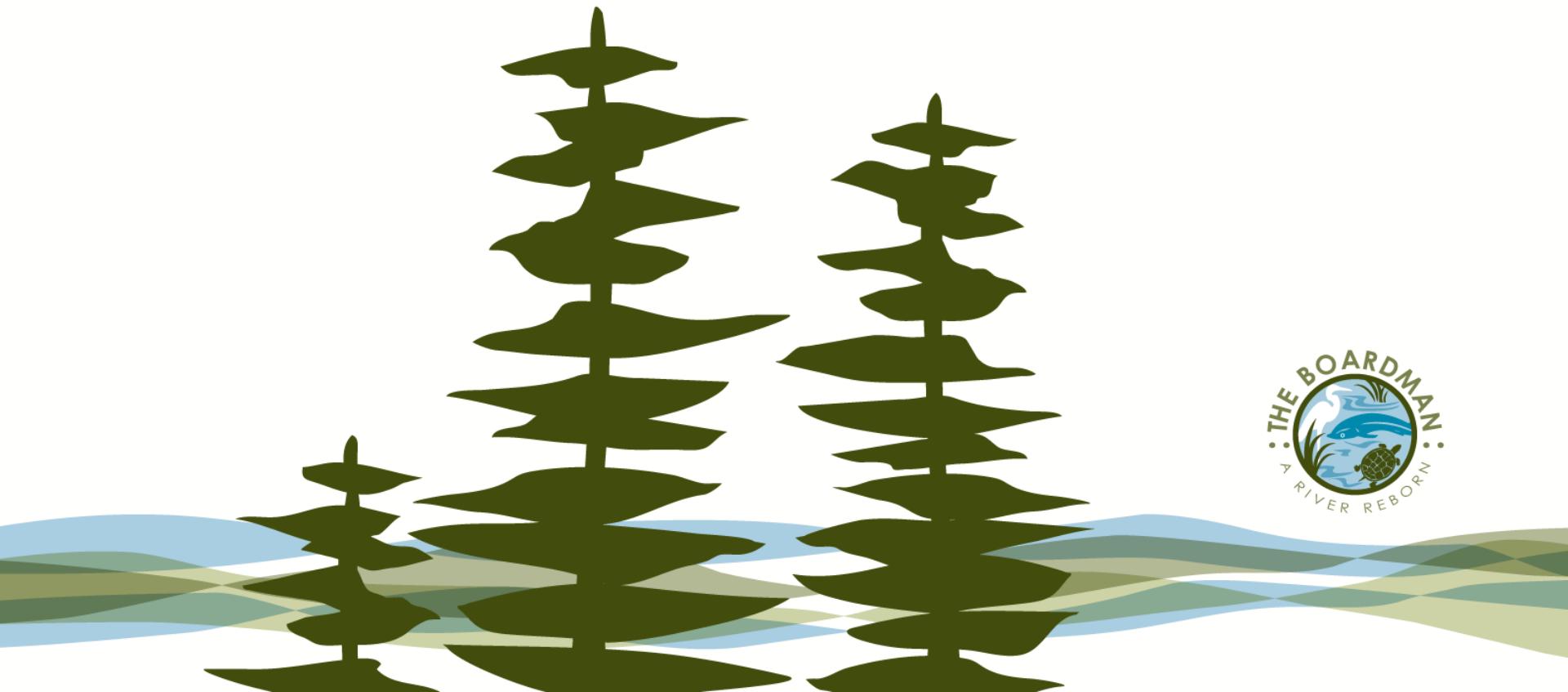
\$121,896 each additional funds for Sabin
Project Partnership Agreement, Grand
Traverse Band

\$500,000 Brownfield Authority



Information & Updates

www.theboardman.org



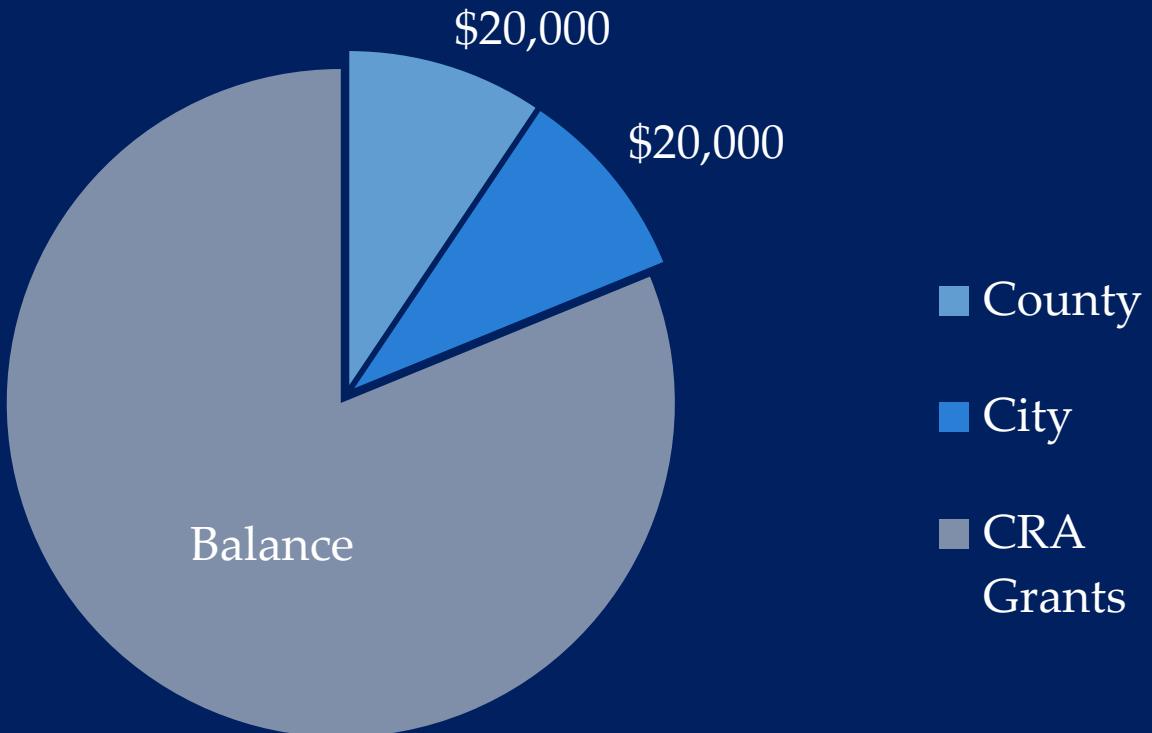
Extra Slides Follow

Non-Construction Cost: \$300-350K/yr

CRA contributes additional “in-kind”

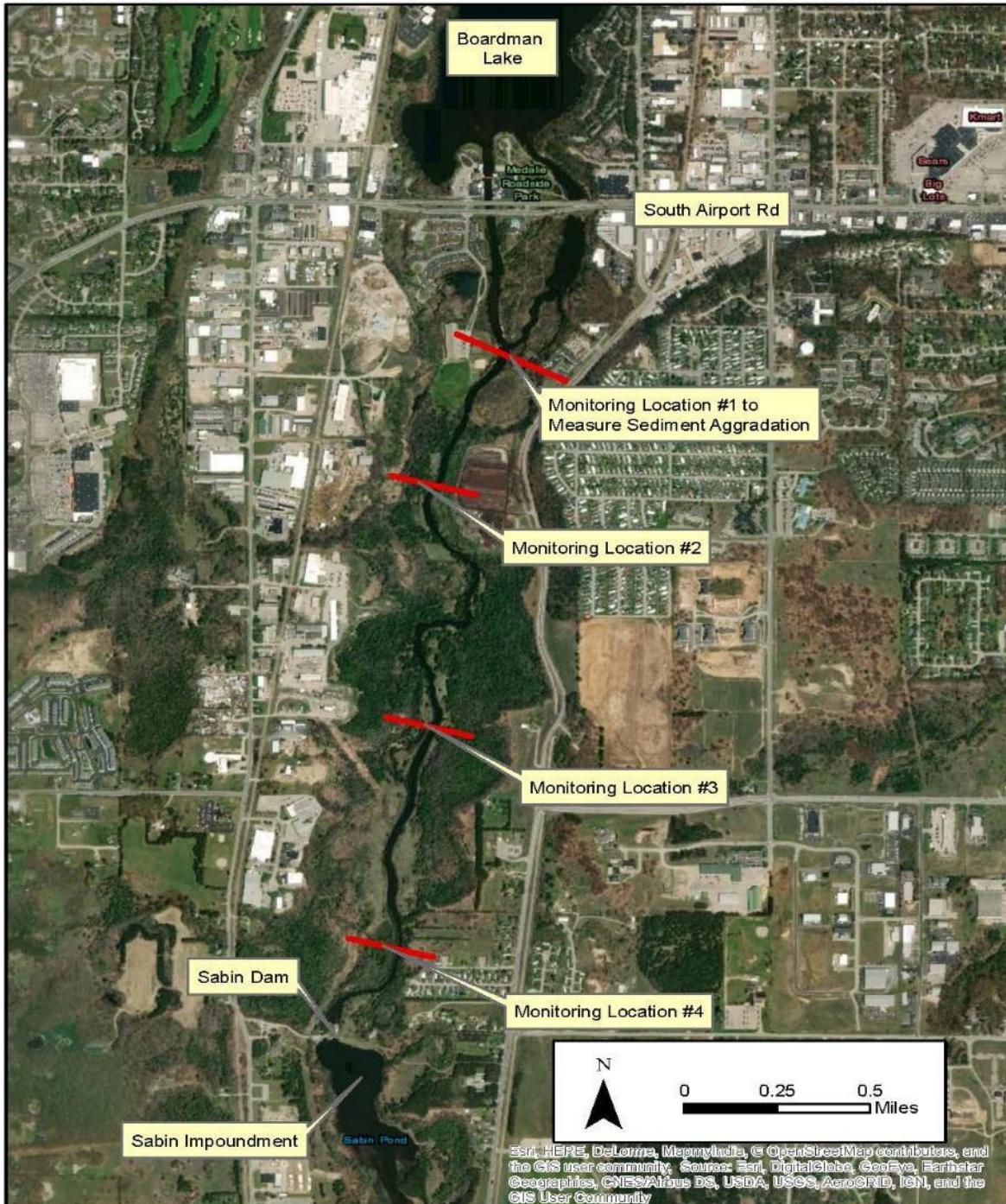
Leverage:

How effort is paid for



Total Funds Raised:

\$27 million



Monitoring: Pre-, During, & Post- Construction



Boardman Dams Removal - Stream Morphology Monitoring Requirements

Monitoring task	Description	Frequency	Conditions
Boardman River Assessment	Hydraulic & geomorphic assessments upstream & downstream of former pond including reference reach surveys.	Completed in March 2015	Required by MDEQ as part of permit violation in regards to Brown Bridge dewatering structure failure. Used to determine SOW for resulting restoration needs in "Impacted Reach."
Boardman Dam Removal - Monitoring and Evaluation Plan for the Boardman Dam Removal and River Restoration Project	Stream morphology, dissolved oxygen, stream temperature at 3 reaches within restored area.	Baseline/asbuilts collected 3 mos after project completion, then annually for minimum 3 years. Monitoring could continue outside of 3 years if adaptive management is needed due to channel instability.	Required by MDEQ permit
Sabin Dam Removal Construction - Monitoring Plan for Phase III Boardman River Restoration Project	Cross-sections, photographs, staff gage readings taken at 4 locations between Sabin Dam & at the S. Airport culverts.	Prior to construction & twice a month during construction.	USACE offered to monitor potential migration of sediment and/or instream wood during construction activities.
Sabin Dam Removal - Monitoring & Evaluation Plan for Phase III Boardman River Restoration Project	Stream morphology incl. longitudinal surveys, cross-sections, topography at 4 locations. Three reaches totaling 3,000' or 43% project area in daylighted river + site upstream of S. Airport culverts.	Starts with completion of as-builts, continues for minimum 3 years (bankfull event must happen), taking measurements annually the same month as as-builts.	Required by MDEQ permit



MONITORING AND EVALUATION REPORT

Phase II Boardman River Restoration Project

2018 Annual Report

Prepared by: Will Harman, PG - Stream Mechanics, PLLC

Prepared for: Grand Traverse Band of Ottawa and Chippewa Indians and Michigan Department of Environmental Quality

January 28, 2019

