



MISSISSIPPI HEADWATERS BOARD BIENNIAL REPORT 2017–2019

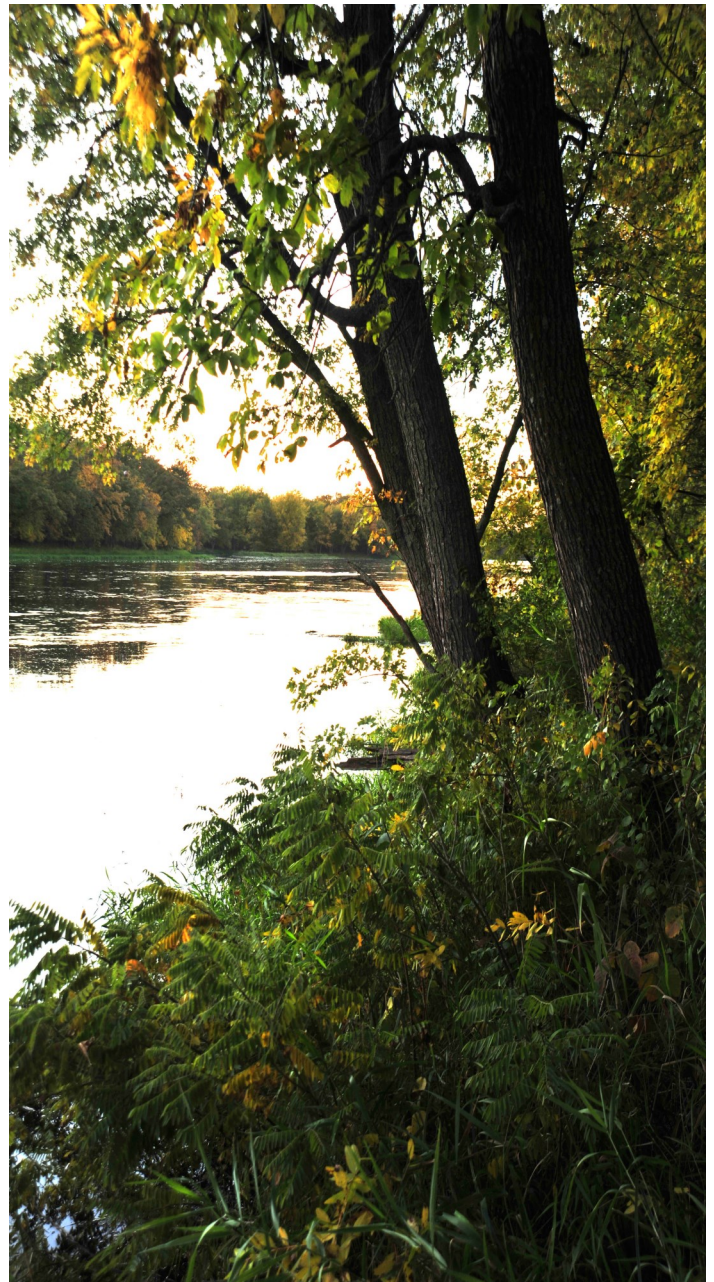


DIRECTOR'S REPORT

What do you think of when you hear the words “value added?” My first thought goes toward the food industry and how value is added to it when it is produced to be healthier than its original intent. The Cambridge English dictionary defines it as— the increase in value of a product or service as it goes through the stages of being developed or produced.

In relation to the Mississippi Headwaters Board (MHB), I see it as the Board increases the value of the partners by working in two distinct but interwoven actions: Collaboration and Leadership. The MHB collaborates with local and state agencies to be the bridge between policy and implementation. We provide comment, letters of support, and facilitate discussion on various project opportunities that present themselves at the local and state level so that all agencies involved can smoothly and seamlessly get their job accomplished without encountering roadblocks. Many times we are the project administrator of grants so that our oversight adds value to the process. We work as a leadership organization to apply for grants that affect the Mississippi River and produce decision support tools that target and prioritize conservation efforts directly and indirectly affecting the Mississippi River basin.

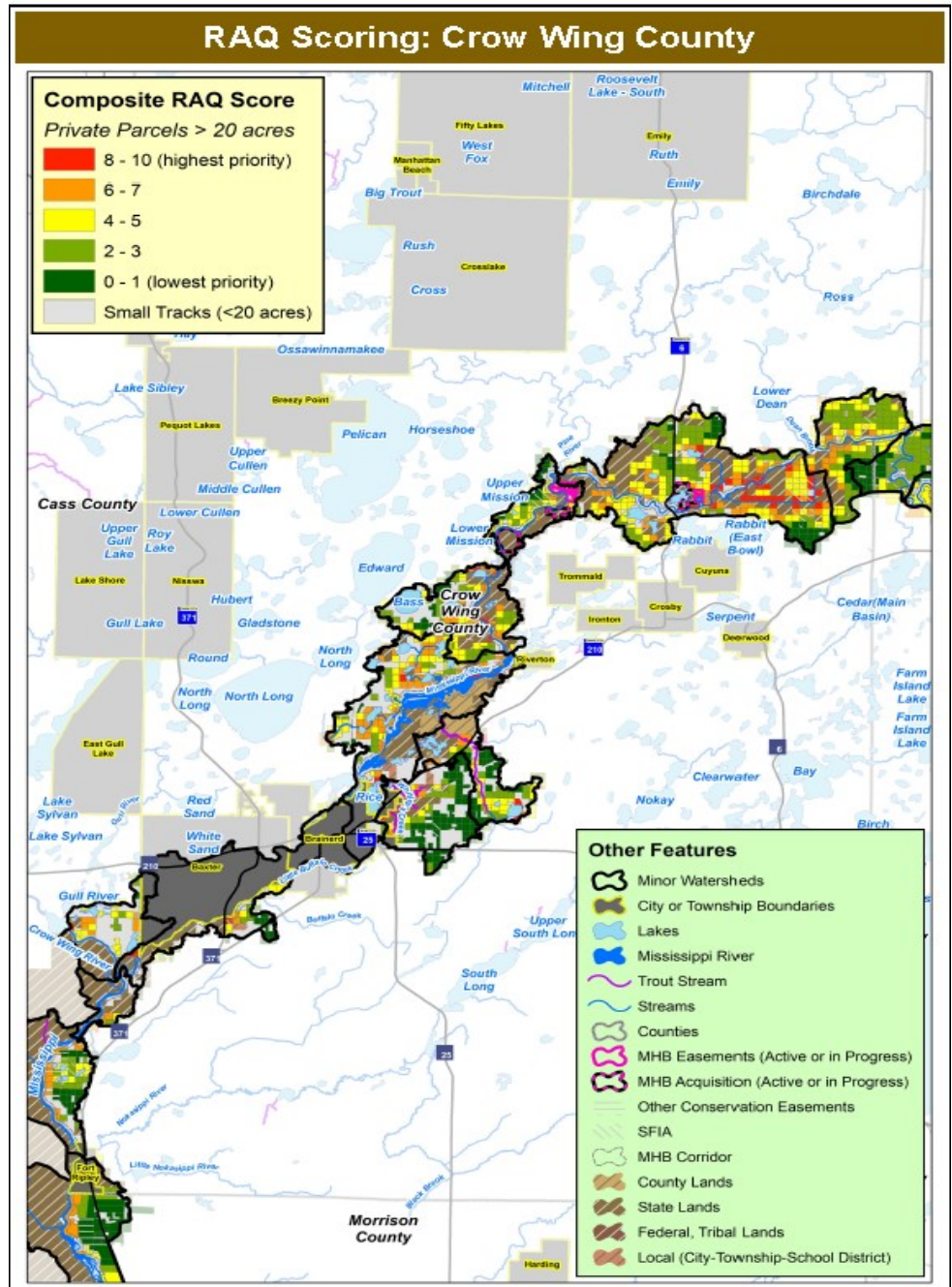
As good work is applied to the landscape, the MHB provides oversight and direction to keep the mission of all conservation partners focused on protecting the natural and recreational opportunities that are abundant in this area. And that is how we add value to the partners that help protect our greatest resource.



Mississippi Headwaters Habitat Corridor Project Decision Support Tool

Planning for Implementation

When the Miss. Headwaters Board began working with the Soil & Water Conservation Districts (SWCD) to prospect landowners for easements, we realized we needed a tool which would give them the ability to find the best parcels of land that benefit habitat, and scale the project area down to a workable number of parcels in the eight county region. The Board of Water and Soil Resources came up with a process that ranked over 6,800 parcels in watersheds that drain directly to the Mississippi River and assigned points based on their proximity to the Miss. River; adjacency to public land; and the quality of habitat based off DNR data sets. This process called RAQ (Riparian, Adjacency, Quality), ranked the parcels, and organized them based off the RAQ score scale of 1 to 10 with ten being the highest in value. Taking the top ranking parcels from the RAQ score, it reduced the number of parcels from 6,800 to almost 1,200 parcels with only 315 landowners to contact. A GIS map was created by Technical Service Area 8 to complement the RAQ score



so SWCD's would have a pictorial, geographic framework to reference. Now the project was scaled to a practical size across the 8 counties, and only the highest valued parcels could be prospect for the Reinvest in Minnesota (RIM) easement

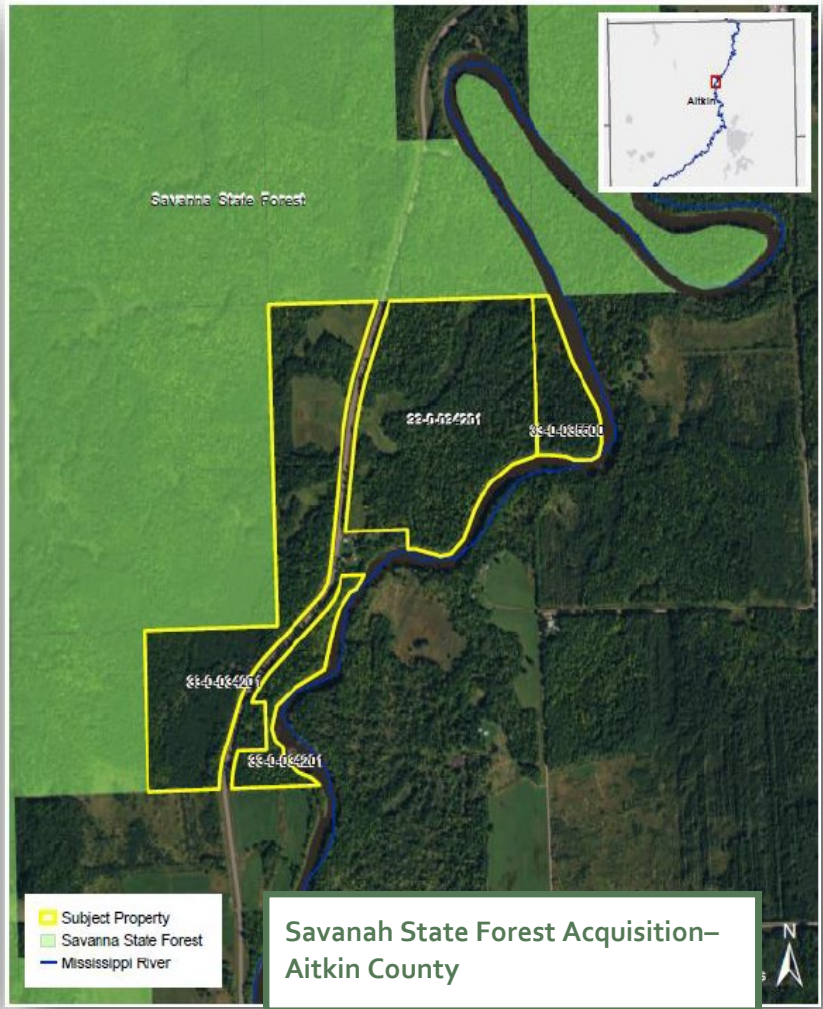
program.

This tool is now being used in the eight MHB counties in the One Watershed One Plan program to help focus and narrow efforts in obtaining high quality easements in both habitat and water quality parcels.

Acquisitions and Easements- Below are some examples of land protected through the Miss. Headwaters Habitat Corridor Project



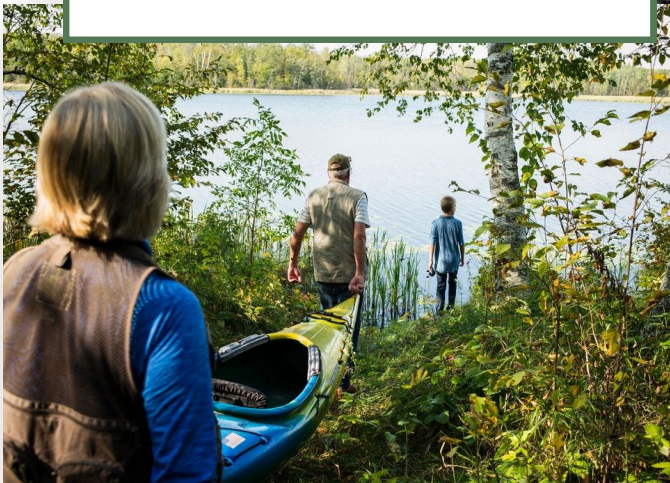
Schuh easement- Crow Wing County



Savannah State Forest Acquisition- Aitkin County



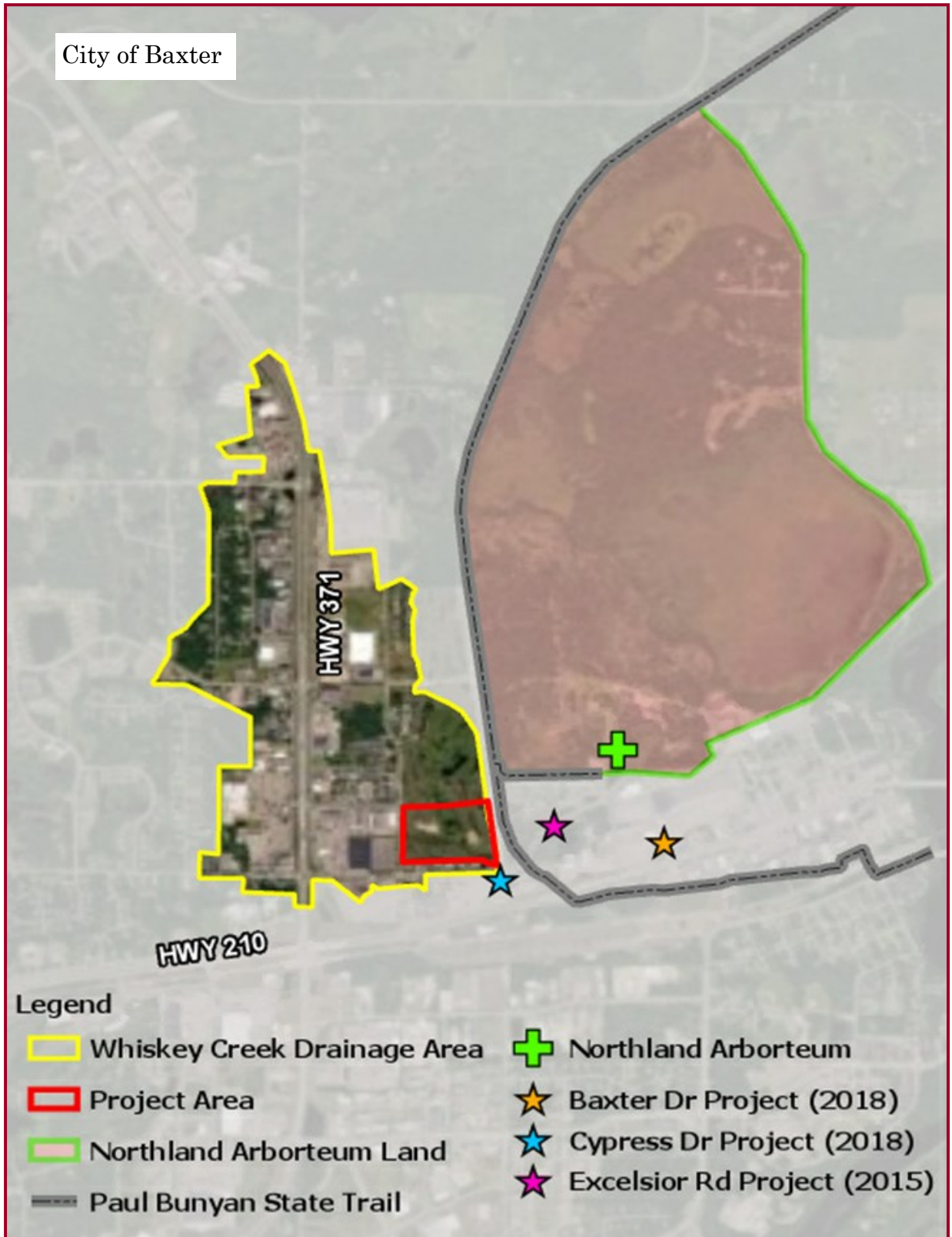
Indian Jack Lake Acquisition- Crow Wing County



STORMWATER PROTECTION IN CITIES

In February of 2019, the city of Baxter asked the MHB to apply for a Legislative Citizens Commission on MN Resources (LCCMR) grant to help intercept phosphorus and soil particles which can cause impairments to the Mississippi River. The project is designed to construct water quality, habitat, and recreational improvements to protect the Miss. River from contaminants in the 400 acre, highly impervious, Trunk Highway 371 watershed in Baxter MN. If funded, the project will construct a stormwater pond to remove nearly four tons of phosphorus and 512 tons of sediment over the next 20 years. Native grasses and wild-

flowers will be planted around the pond to encourage pollinator friendly species like butterflies and bees, and also provide a large habitat complex for a wide variety of animals and plants due to its close proximity to the Northland Arboretum. In addition to the water quality & habitat benefit, this public greenspace will provide access to the regional Paul Bunyan Trail. Signage will be used to help residents and tourists understand the benefit of the greenspace and provide quiet recreational space for everyone to enjoy. The project was funded at a level where an acquisition could occur to permanently protect the land from development and make it possible for the MHB to leverage additional grants to build the project.



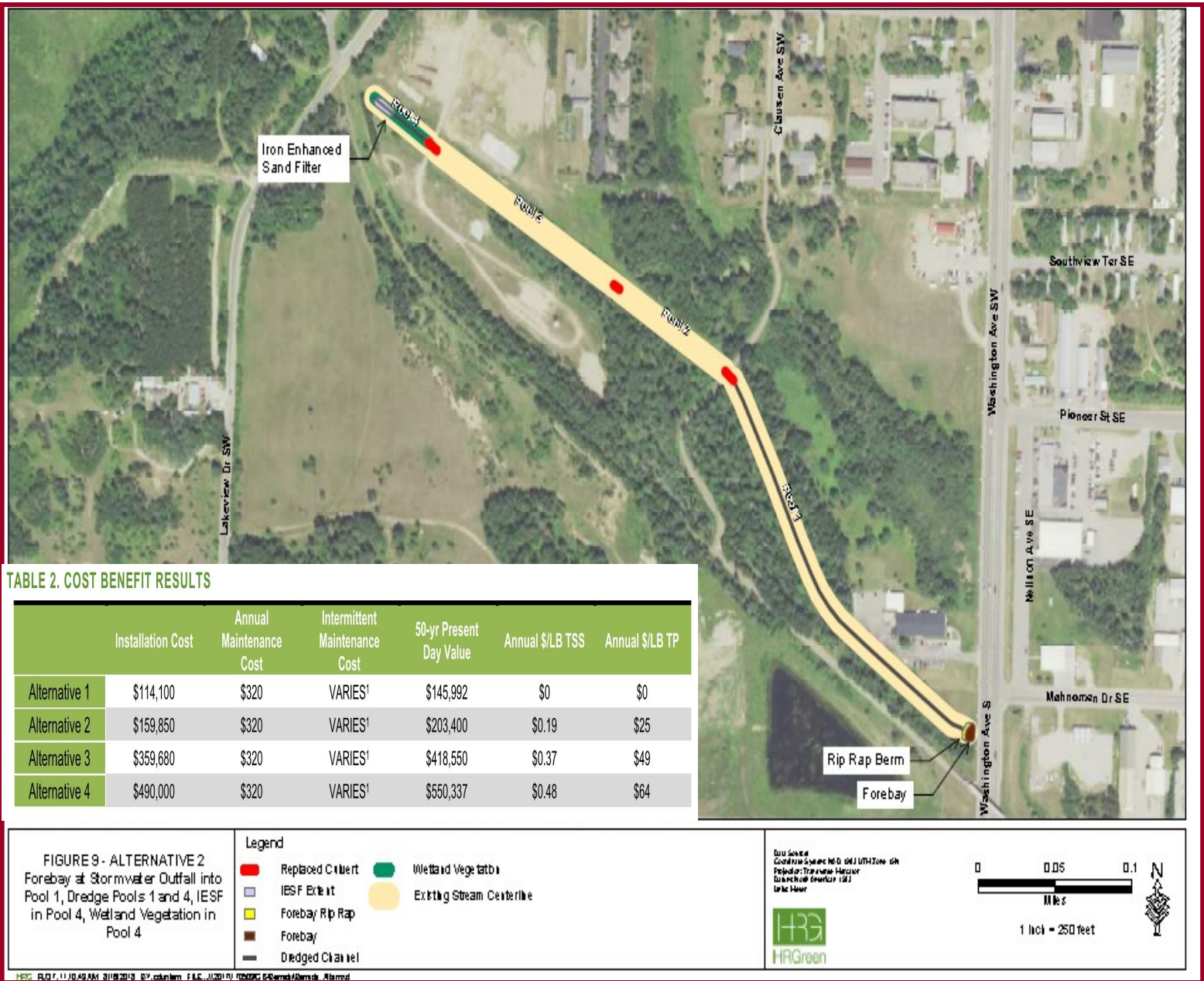


TABLE 2. COST BENEFIT RESULTS

	Installation Cost	Annual Maintenance Cost	Intermittent Maintenance Cost	50-yr Present Day Value	Annual \$/LB TSS	Annual \$/LB TP
Alternative 1	\$114,100	\$320	VARIES ¹	\$145,992	\$0	\$0
Alternative 2	\$159,850	\$320	VARIES ¹	\$203,400	\$0.19	\$25
Alternative 3	\$359,680	\$320	VARIES ¹	\$418,550	\$0.37	\$49
Alternative 4	\$490,000	\$320	VARIES ¹	\$550,337	\$0.48	\$64

FIGURE 9 - ALTERNATIVE 2
 Forebay at Stormwater Outfall into Pool 1, Dredge Pools 1 and 4, IESF in Pool 4, Wetland Vegetation in Pool 4

- Legend
- Replaced Channel
 - Wetland Vegetation
 - IESF Outlet
 - Existing Stream Centerline
 - Forebay Rip Rap
 - Forebay
 - Dredged Channel

THIS SERVICE CONTRACT SYSTEM HAS BEEN APPROVED BY THE MISSISSIPPI HEADWATERS BOARD
 PROJECT: TECHNICAL SERVICE AREA 8
 DRAWING NUMBER: 1511
 DATE: 08/2019



City of Bemidji- A 2014 stormwater retrofit analysis, funded by Clean Water Legacy funds through the Board of Water & Soil Resource, was completed in Bemidji to help identify where sources of pollutants could have an impact on the Miss. River. A practice in the watershed named PMA-25 was identified on the SE side of Lake Irving that had potential to intercept pollutants from entering the lake and the Miss. River. At almost the same time, an impaired waters study was being conducted by the MN Pollution Control Agency which identified Lake Irving as an impaired waterbody. The city realized that Lake Irving was a resource that had multiple benefits to its residents and visitors and made a decision to further investigate alternative pollution prevention practices to protect their lake. Funding from Technical Service Area 8 provided HR Green to do a feasibility study in the area and develop alternatives to intercept pollutants. Based on that study in Table 2, the city council and the Beltrami Soil & Water Conservation District chose to apply for an implementation grant in August of 2019 to receive funding from the Clean Water Legacy fund to implement Alternative #2. If funded, the Mississippi Headwaters Board will coordinate and the Beltrami SWCD will administer the grant to help protect Lake Irving and the Mississippi River.

STATEMENT OF REVENUES

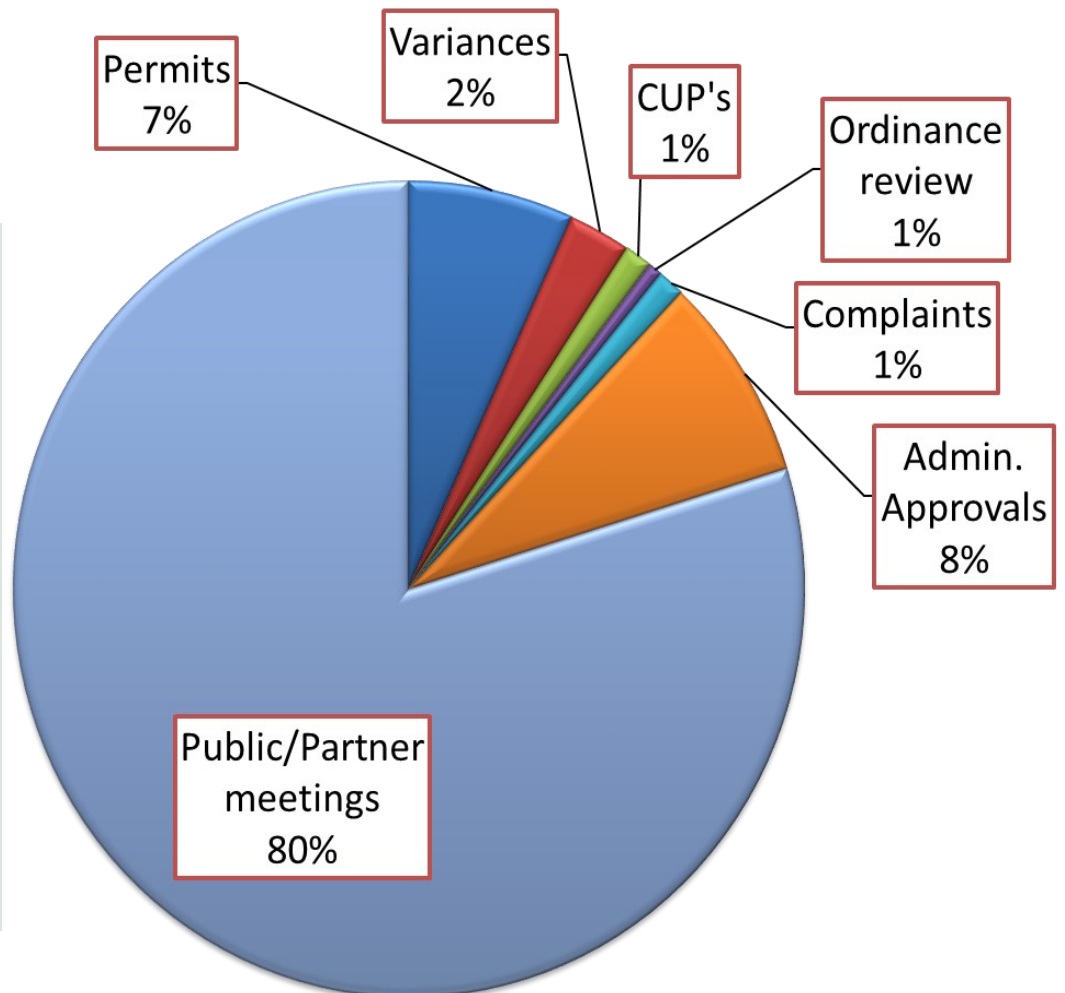
REVENUES	'17-'18	'18-'19
DNR Grants/Approp.	\$185,753	\$101,711
Other Grants/funding	\$334,389	\$97,153
TOTAL	\$520,142	\$198,864

STATEMENT OF EXPENSES

OPERATING EXPENSES	'17-'18	'18-'19
Office Operations	\$98,780	\$102,456
Per Diem	\$ 3,096	\$2,200
Professional Services	\$255,087	\$141,451
Mileage	\$7,140	\$6,991
TOTAL	\$364,103	\$253,099

County in-kind Contributions:
\$578,963

Mississippi River Protection Actions



Mississippi Headwaters Board

Land Services Building
322 Laurel St.
Brainerd, MN 56401

Phone: 218-824-1189
Web:
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E-mail:
timt@mississippiheadwaters.org



PROTECTING THE FIRST 400 MILES