

Beltrami County's Aquatic Invasive Species Program Report 2022

Beltrami County received \$205,576.00 in AIS State AID in 2022. The categories below are the strategies that Beltrami County has in their Aquatic Invasive Species Prevention and Management Plan. Various organizations also donated funding to help with the Beltrami's AIS Program, Northern Township, City of Bemidji, Grace Lake Association, Turtle River Watershed Association, and Farden Township-Hubbard County. The total funding received in 2022 was \$224,044.70. We also have a rapid response and management fund. In previous years we built that fund up to \$32,522.79. The pay for my position as the AIS Lake Technician comes out of the AIS AID money and 100% of my time is spent working on AIS prevention, monitoring, and management. This time is figured into the totals for each strategies. Total moneys spent on the Beltrami County Aquatic Invasive Species Program in 2022 is \$234,709.49.

A. Education/Prevention \$49,303.29

The main keys to successfully preventing AIS from spreading is to fully inform the public of the issues at hand and the importance of their actions in limiting the spread of AIS.

Monthly AIS letter to new lake shore owners, list from Real Estate & Tax Services. When a property has an owner change it triggers me to send a letter. Approximately 648 letters set in 2022.

This season we also started a letter to short term rentals (STR). 26 letters were sent in 2022

Big Bog Days AIS program for grades K-6. Over 4 days had approximately 250 students. Received many stores of how ZM cut feet and knees

Entertainment Extra ad – published each week we have an ad bi-weekly (26 ads), changed depending on the season

Pinnacle Publishing handled most of the advertising this season.

Objectives

- Educate and remind water recreationalists of Aquatic Invasive Species, and how to prevent their spread
- Continue to be creative and reach target audiences through a variety of ad platforms
- Maximize campaign budget and media opportunities with MHB partnership
- Review campaign results to understand and measure value

Target Audience

- People recreating on Beltrami County waterways
- Full-time and seasonal residents, as well as tourists/vacationers

Online Platforms

Facebook/Instagram

- o Monthly posting, 80% of MN Traditions shareable content, 20% Beltrami Co created
- o Includes setup, design, management, and monthly reporting

Google Display, and YouTube

- o Display ads targeting consumers by their search history, location, and interests
- o YouTube video ads targeting consumers by their demographic, location, and interests
- o Includes campaign strategy, setup, design, management, and reporting

Streaming TV and Apps

- o Monthly video and banner ads on popular connected TV app networks such as Discovery Channel, ESPN, FOX, CBS, etc.

- o Includes campaign strategy, setup, design, management, and monitoring Streaming Audio Advertising

- o Monthly commercial on Spotify, Pandora, iHeart Radio, local stations, etc.

- o Includes campaign strategy, setup, ad production, management, and reporting

Account Management & Ad Production

Account Management

- o Coordination of topics and content with the MHB Minnesota Traditions program for the largest impact and effectiveness

- o Coordination of campaign messaging, media and reporting with platforms and 3rd parties

- o Monthly call or visit to discuss creative development, report on ad results and recommendations for adjusting any designs, ad spends, or marketing channels

- o Create a cohesive campaign with fresh creative on monthly basis that contains consistent imagery and messaging across the various platforms for a strong and effective reach

Video Production/Photography

- o Commercial and video creation for videos on key campaign topics

- o Video to be utilized across various ads, 10-30 seconds in length

- o 2-4 hours for filming/photography through the season or time can be used towards video editing

Ad Production & Design

- o Monthly graphic design creation for campaigns

- o Professional audio commercials with music and voiceovers

- o Creative will include various videos, still ads, and audio ads

Schedule for both Newspaper Radio and Pinnacle

buy line entertainment weekly ad	Videos – TV Web	
January	Live Bait - Bait bag graphic	
February	You can help protect MN waters	
March	docks and lifts -Clean, Drain, Dry	
April	Habitattitude	
May	stop The Spread spiny waterflea	*Bait Management/Spiny Water Fleas (May) -
June	Clean Drain Dispose	Lake Hopping (June) -
July	Live Bait - Bait bag graphic	Rec Boating (July) –
August	stop The Spread spiny waterflea	Lake Hopping (August) -
September	Live Bait - Bait bag graphic	*Spiny Waterflea/Duck Hunting (September) –
October	Duck hunting SAH canoe	Duck Hunting (October)
November	Live Bait - Bait bag graphic	
December	You can help protect MN waters	

NISAW (National Invasive Species Week) letter to the editor and media release

MHB (Mississippi Headwaters Board) AIS web Campaign, helped with video material

MHB MN Traditions Web stories and advertising, helped with an interview

Linder's Angling Buzz air time – Partnering with Beker and 16 other counties, helped with funding.

Cabin Cast partnering multiple counties and Wild Life Forever, helped with funding

AIS booth at the Bemidji Science Fair and Beltrami County Fair

Bait bags; Wild Life Forever and five other counties cooperated to produce bait bags and distribute them to bait shops – Don't let it Lose 8000 bags



B. Inspections \$96,561.39

Public accesses are a major contact point to interact with watercraft owners and operators. The one on one contact at the public water accesses with MN DNR authorized inspectors are critical as educational efforts can and should be combined with law and/or regulation compliance efforts.

Funding donations by City of Bemidji, Northern Township, Grace Lake Association, Fardon Township.

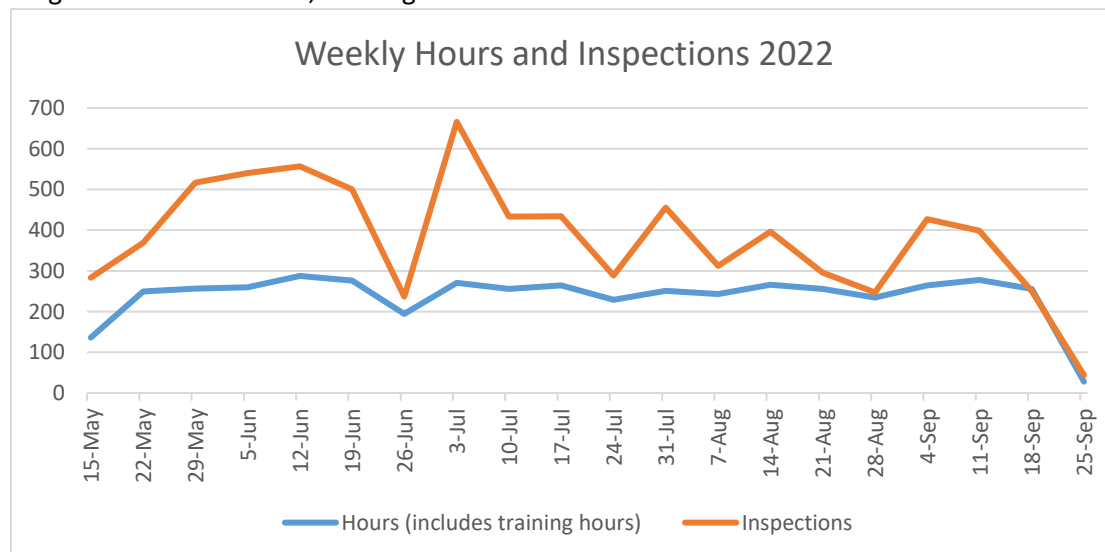
Enhanced training by Dr. Donna Pawlowski Professor of Communications studies BSU, Richard Kock Professor of Plant Ecology BSU, and Debbie Guelda Professor of Invertebrates BSU.

On line and in person DNR training for watercraft inspectors

10,434 inspections County 7,651, DNR 2,783

9 County inspectors, Inspection Hours 4,800

Plug out on arrival 98.5%, Arriving clean 98.1%



C. Enforcement \$654.52

Enforcement can have a major influence on how a local population conforms to AIS laws and regulations. The support of local law enforcement can help reduce the threat of spread by adjusting the public’s perception of what is acceptable and/or unacceptable behavior regarding AIS laws and regulations. It is important for the public to be informed, understand, and be held accountable to the laws and regulations set in place.

Grace Lake Jean, 2 boaters just came from Wolf Lake no stops along the way (4 min away). They were transporting live fish. One walleye in each live well with Wolf Lake water. Jean helped them flush out their system with Grace Lake water. Wolf Lake is designated as infested with ZM.

Dian - Big Lake arriving with ZM unable to get pictures boater was “grumpy”. Fishing boat transom well, Plate Wisconsin, report on file

Dian working Lake Beltrami had a boater refuse inspection. She tried to flag them down but they refused to stop. Called dispatch Josh Arhart responded Case number 22011429 report on file

Rachelle had a refusal for inspection. See talked with him and he just drove off. I had her call dispatch and write up a report

D. Early Detection, Rapid Response, and Management \$23,440.88

An effective early detection and rapid response (EDRR) plan is crucial in order to reduce the possibility of new AIS introductions and eventual establishments. If an AIS is detected before or soon after introduction, the probability of containment and eradication greatly increases; but the longer a population goes unimpeded the more greatly it becomes embedded, and difficult to contain or eradicate. Successful EDRR is therefore dependent upon effective AIS monitoring and reporting programs to alert managers to potential issues and/or new introductions.

Discovery of Starry stonewort in Turtle River Lake at the main street access City of Turtle River. We could not find anyone to hand pull. Plan to organize and line up hand pulling and delineation for 2023.

Plant surveys on North and South Twin Lakes by RMB Labs

Big Lake Association presentation on ZM infestation and Beltrami County’s AIS program

Monitoring of SSW infestations on Wolf, Turtle, Pimushe and Beltrami. DNR hand pulled these locations

Algicide treatment at the Big Turtle Lake access by PLM to manage the SSW

Early detection activities;

Water Body Name	Search Location within the Water Body	Search Method	Additional Notes
Beltrami	PWA	Snorkeling	Lake Beltrami is designated with SSW, verifying. Hand pulled

Bemidji (Cameron park)	PWA	Visual and rake	very little vegetation
Bemidji (Cameron park)	PWA	Rake	
Bemidji (Lavinia)	PWA	Rake	very sandy not much vegetation
Bemidji (Northwoods)	PWA	Rake	SSW was found 30 yds south of this access, by someone doing research on Charophytes
Bemidji (Nymore (south))	PWA	Rake	found some red growth, turned out to be exposed roots from the willow tree
Big Bass	PWA	Snorkeling	Banded mystery snails pretending to be ZM
Deer	meander shoreline	Kayak rake (meander)	Just south bay to windy
Dellwater	meander shoreline	Kayak rake (meander)	only west half of lake, need to do the east have a lot of housing on that side
Grant	swim area in park	Snorkeling	examined buoys chain and cement block
Little Buzzle	PWA	Visual and rake	shallow follow up with Kayak
Little Buzzle	meander shoreline	Kayak rake (meander)	nice variety of native vegetation, Whorled Milfoil <i>Myriophyllum verticillatum</i> found
Moose west side Beltrami Co.	meander shoreline	Kayak rake (meander)	suspicious plant report; thinking leafy pondweed or slender, also Flowers of White water crowfoot
Moose west side of Beltrami Co.	PWA	Visual and rake	shallow for a way out, follow up with kayak
Pimushe	PWA	Snorkeling	Pimushe is designated with SSW and ZM. Did not see any ZM did see SSW -hand pulled
Rabideau	meander shoreline	Kayak rake (meander)	from PWA to north shore then west along shore all the way around back to PWA. Had a suspicious plant report; Was Slender leaf pondweed. No invasive found
Turtle River Lake hwy 21	PWA	Visual and rake	
Turtle River Lake Main St	PWA	Visual and rake	took sample SSW?
Turtle River Lake Main St	PWA	Snorkeling	Samples <i>Nitella</i> sp. No star shaped bulbils, collapse out of water. Will check later in season
Turtle River Lake Main St	PWA	Snorkeling	This is SSW reported on EDDmapS and email to Nicole. Star shaped Bulbils and ridged out of water. In June it must have been young samples
Whitefish	PWA	Visual and rake	shallow follow up with Kayak
Whitefish	meander shoreline	Kayak rake (meander)	nice lake
Wolf	PWA	Snorkeling	Wolf is designated with SSW and ZM. Verified both near access - hand pulled
Turtle River Lake hwy 21	PWA	Kayak rake (access only)	nothing suspicious

Search method is by a Rake toss from dock and surrounding area, follow the Starry Trek protocols. Meander surveys is from the DNR meander surveys protocols. Meander surveys consist of vegetation surveys in the littoral zone in a meandering rout.

Water samples in cooperation with Beltrami County Soil and Water. 126 water samples taken to test for chlorophyll a, phosphorus, and a seechi disk reading. Also, the volunteers check for any suspicious vegetation or other “out of place” animals.

E. Decontamination \$28,192.59

Having the ability to spray and rinse with very hot water is a key component in the best management practices (BMP) for preventing the spread of AIS. Ultimately it is the owners’ responsibility to decontaminate their watercraft. Beltrami County has a responsibility to assist by having the BMP options available for water resource users. This includes having hot water and high pressure available to the users of the water resource so that boaters can effectively decontaminate their watercraft when needed.

On line and in person training for the decon crew

Beltrami county Decon crew did 15 decons

DNR decon crew did 80 decons in Beltrami County

F. New Technology/Methods/Support \$24,724.03

Beltrami County Invasive Species Program must consistently review alternative, up to date solutions for efficient prevention and management of AIS for Beltrami County lakes. Funding, support, and participation in new programs is essential in order to stay current with present AIS issues in addition to pending AIS issues which have not found their way to local waterbodies at this time.

Beltrami County is part of the Stop Starry Project, a program sponsored by Minnesota Lakes and Rivers Advocates and Wildlife Forever funded by Fish and Waters Conservation Fund to get the tools out to boaters to help prevent the spread of starry stonewort (SSW). Lake infested with SSW will get a “Clean, Drain, Dry, Dispose” (CD3) machine at the public water access (PWA). It will have flood lights, a “shop vac” for removing excess water, and an air hose for blowing out water lines. The other tools are a grabber, boat plug wrench, and long-handled brush. The unit is internet-connected and, if activated, people can use it as a Wi-Fi hotspot. Beltrami County has seven waterbodies with infestations of SSW. We (all of us) need to act now to prevent the spread of this invasive algae.

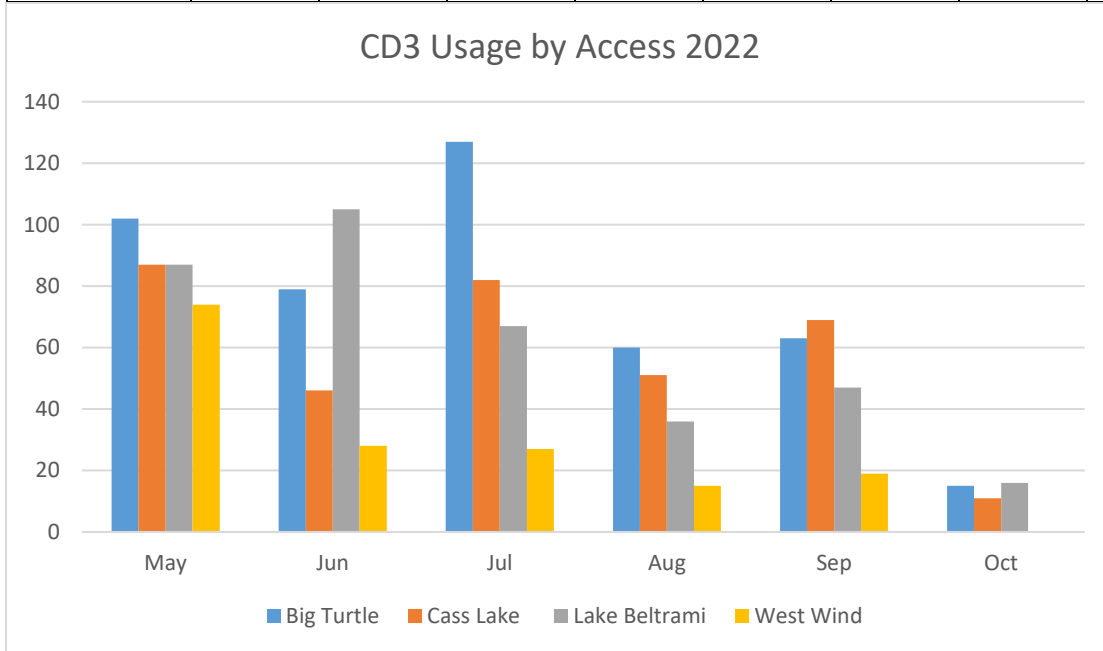
Access	DOW	Received	installed
Turtle Lake State Water Access Site	04015900	3/28/2022	5/3/2022
Moose Lake State Water Access Site	04001100	2/14/2022	
Wolf Lake State Water Access Site	04007900	3/24/2022	
Beltrami Lake State Water Access Site	04013500	3/24/2022	5/3/2022
Cass Lake (E) USFS Water Access Site This is the Knutson dam campground site	4003000	2/14/2022	5/4/2022

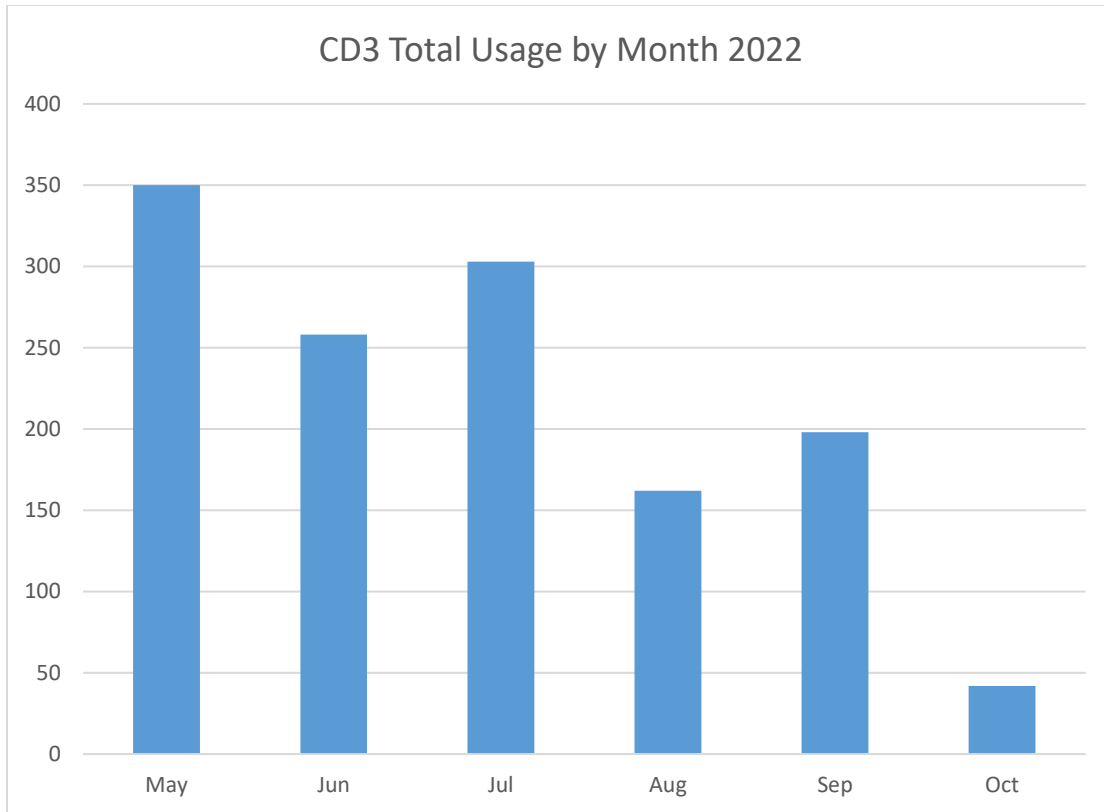
Pimushe USFS water access site	4003200	2/3/2022	11/30/2022
West Wind Upper Red	4003500	3/28/2022	5/4/2022

Delay in getting Authorization because of cultural reviews on Moose, Wolf, and Pimushe.

Sessions – how many times the unit was used

Location 2022	May	Jun	Jul	Aug	Sep	Oct	Total	Percentage
Big Turtle	102	79	127	60	63	15	446	34%
Cass Lake	87	46	82	51	69	11	346	26%
Lake Beltrami	87	105	67	36	47	16	358	27%
West Wind	74	28	27	15	19	0	163	12%
Total	350	258	303	162	198	42	1313	
Percentage	27%	20%	23%	12%	15%	3%		





Big Turtle CD3 was used the most and the 1st month it was available had the most use for all units. For the month of use is similar to the inspections in that May is the busiest time with less use as the season progresses.

The vacuum at Big Turtle had a partial clog, I was able to remove the clogging material easily.

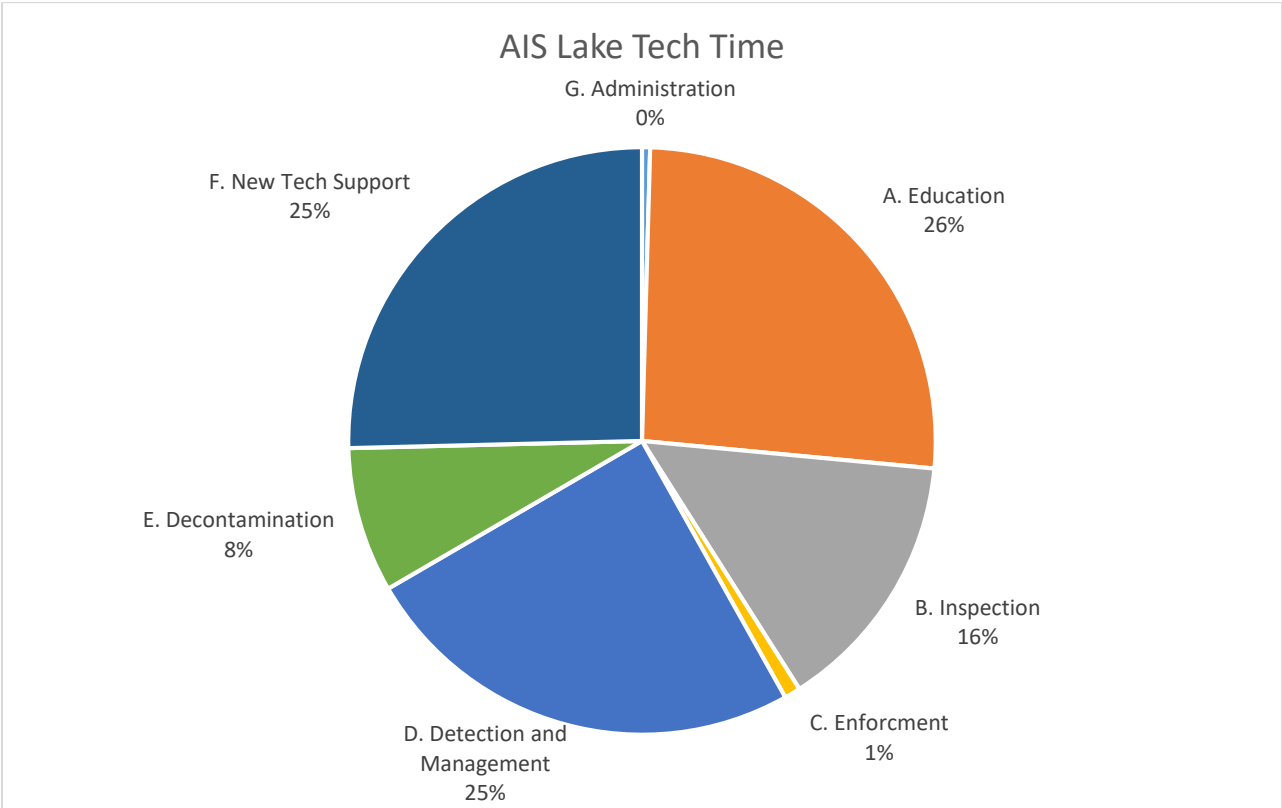
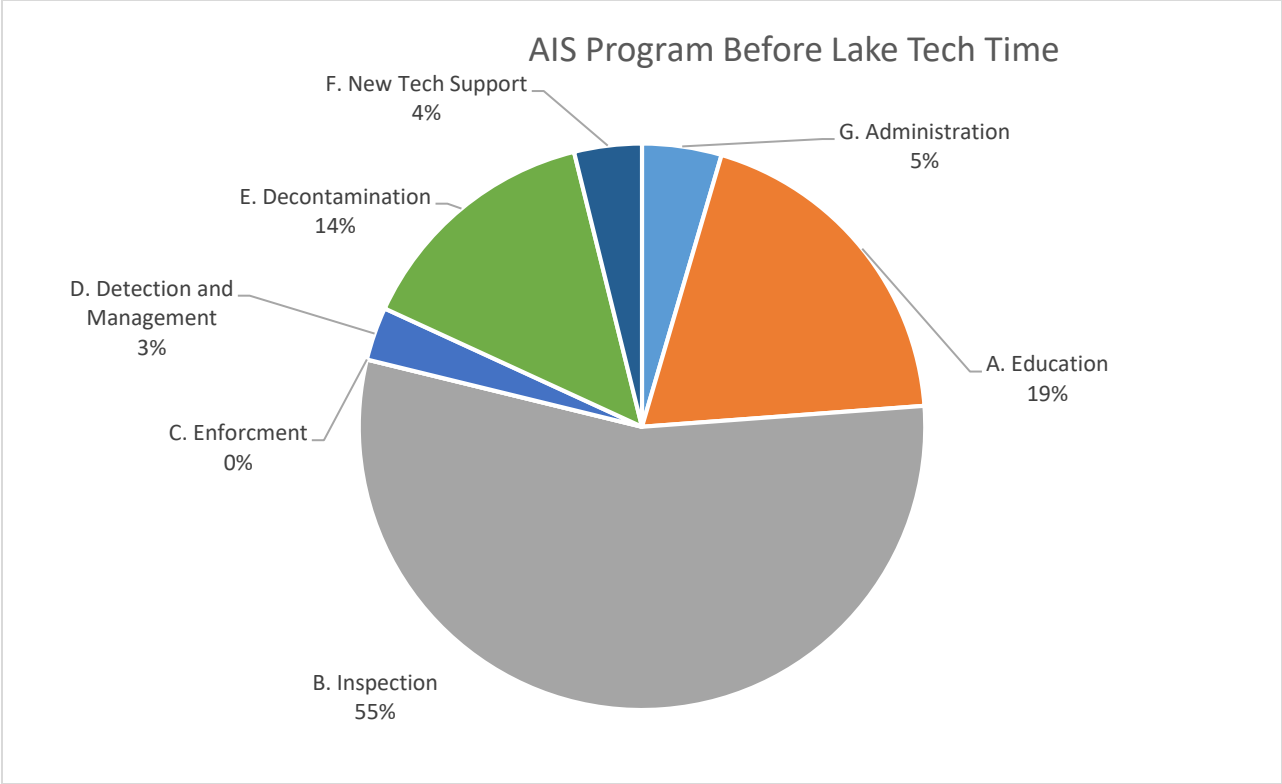
G. Other Expenditures \$7,408.02

Program Coordinator and General Admin final Split of Time and Money

Vehicle flat tire and oil changes and other miscellaneous cost.

General Administration Environmental Services office space, supply's, and HR services.

Funding for Beltrami County's AIS Program								
Strategies	G. Administration	A. Education	B. Inspection	C. Enforcement	D. Detection and Management	E. Decontamination	F. New Tech Support	Totals
Funding	\$7,408.02	\$49,303.29	\$96,561.39	\$654.52	\$23,440.88	\$28,192.59	\$24,724.03	\$234,709.95
%	3%	21%	41%	0%	10%	12%	11%	100%



Aquatic Invasive Species Program

