Making a Difference with Aquatic Invasive Species Prevention Aid

A Snapshot of Metrics and Accomplishments in 2020

Overview

Minnesota Counties receive Aquatic Invasive Species (AIS) Prevention Aid each year. Their programs are diverse, cover a spectrum of activities, and are at different stages of development and implementation. Through cooperation and iterative feedback from counties, the Minnesota Department of Natural Resources (DNR) developed a template list of metrics to provide a standardized way for local governments and their partners to voluntarily track their AIS Prevention Aid accomplishments in 2020. It is a tool to more easily track measurable achievements and impactful stories of effectiveness, and for counties to show their local residents, stakeholder groups, boards and elected officials how they are making a difference in their communities.

The DNR asked counties to provide values for each applicable metric, leave blank or delete metrics that didn't apply to their program, and share stories of success. Overall, local program managers found value in this exercise. They were able to select metrics that reflected the unique work of their programs in 2020, and it provided them with ideas for future metrics to track. It was an opportunity to show their work and populate baseline data. It got them thinking about accountability and how to best evaluate their programs. The experience and information gathered will help them continuously improve their programs in conjunction with established plans, resolutions, budgets and reports.

Of course, 2020 brought forth the unforeseen challenge of COVID-19. Local managers rapidly and strategically adapted their programs to continue to make connections and take action in a sociallydistanced world.

Individual county reports can be requested from each county. DNR Planners collected and compiled all data. The data are not perfect, because counties track information in different ways based on the needs of their programs. A total of \$10 million is distributed each year directly to counties, half in July and half in December. Some counties have rollover funds from previous years, don't use all funds received in a given year or didn't submit metrics. Therefore, this is not a complete picture of all funds available in 2020.

61 of the 83 counties receiving AIS Prevention Aid voluntarily completed and submitted metrics for their 2020 programs. This accounts for 73% of the counties and 88% of the aid received in 2020.



Participating Counties: Aitkin, Becker, Beltrami, Benton, Big Stone, Blue Earth, Brown, Carlton, Carver, Cass, Chisago, Clay, Clearwater, Cook, Cottonwood, Crow Wing, Dakota, Douglas, Goodhue, Hennepin, Houston, Hubbard, Itasca, Kanabec, Kandiyohi, Kittson, Koochiching, Lac qui Parle, Lake, Lake of the Woods, Le Sueur, Lincoln, Mahnomen, Marshall, Martin, McLeod, Meeker, Morrison, Murray, Nicollet, Nobles, Olmsted, Otter Tail, Pennington, Pine, Polk, Ramsey, Red Lake, Saint Louis, Scott, Sherburne, Sibley, Stearns, Stevens, Swift, Todd, Wabasha, Wadena, Wilkin, Winona, and Wright.

The results displayed on the following pages highlight a significant portion of statewide activities funded by AIS Prevention Aid in 2020. Photos in this document were provided by counties, as credited in the photo captions.

Table of Contents

- Budgets (p. 2)
- Funds Used and Leveraged (p. 2)
- People Doing AIS Work (p. 3)
- Communities Engaged (pp. 3 6)
- Watercraft Inspection (pp. 7 8)
- Enforcement (p. 8)
- Monitoring and Early Detection (pp. 9 11)
- New Infestation Response (pp. 11 12)
- Invasive Aquatic Plant Management (p. 12)

Due to COVID-19, AIS program managers adapted their activities. The following trends appear when comparing metrics in 2020 vs. 2019:

- Grants, invasive aquatic plant management and new infestation responses remained similar.
- In-person outreach was extremely limited. This was especially true for schools and youth organizations.
- Use of traditional and social media increased.
- More lakes and rivers were surveyed for AIS, using various monitoring approaches.
- Inspection programs were bigger, including more inspectors, more hours, more watercraft inspected and more lakes and accesses covered.
- Local law enforcement was less involved.
- There were fewer volunteers and slightly fewer jobs created.

Overall, it was a year of necessary innovation for AIS program managers. For example, The Northwest Water Festival and Children's Metro Water Festival pivoted to virtual events by hosting live webinars, recorded lessons and take-home activities. Watercraft inspection programs engaged a record number of boaters. More cleaning tools were provided at public water accesses. New behavior change pilot projects focused on getting anglers to properly dispose of bait and shoreline residents to dry previously-owned docks and lifts for the required 21 days before moving them.

Budgets

Thirty-eight counties provided budget details as part of their metrics submission, with an average budget of \$47,980 and total budgets ranging from \$3,500 to \$684,329. Averages for each broad category of spending are outlined in the table below. Not all counties spent monies in each of the categories listed.

Category	# of counties	Average %	Average \$
Public Outreach and Education	35	27%	\$14,614.87
Watercraft Inspection	23	48%	\$89,773.31
Enforcement	11	9%	\$13,789.45
Monitoring	20	15%	\$15,681.02
Invasive Aquatic Plant Management	9	22%	\$12,609.90
Grants	18	24%	\$39,236.68
New Infestation Response	4	2%	\$1,833.85
Program Coordination and Administration	17	29%	\$28,814.23
Other	12	21%	\$44,067.39

Funding



Map: 32 counties have a local grant program

Funds Received in 2020 \$8,796,841

Funds Used in 2020 \$8,028,551.87

Funds Saved in a Contingency Fund \$1,201,669.59

By **36** counties over multiple years for a variety of activities.

Funds Distributed as Grants

(AIS Prevention Aid to other organizations)

\$1,687,092.19 awarded to 196 organizations

Additional Funds Leveraged to Directly Support Aid-Funded Work \$1,153,913.06 contributed by 147 organizations

Morrison: "With limited County staff time available, Morrison County has created an AIS partnership grant program that makes funds available to applicants willing to undertake AIS prevention actions that align with the Morrison AIS Prevention Plan."

McLeod: "Established a new grant application in 2020 for non-profit partnerships to assist with AIS prevention and response."

St. Louis: "St. Louis County manages its AIS Prevention Program as a grant program. Each year, St. Louis County invites and encourages organizations, through an application/proposal process, to address AIS issues with multidisciplinary, integrated solutions based on science, related to natural resources sustainability, and social and economic concerns. The County supports projects that address one or more of the seven categories and associated actions outlined in the <u>St. Louis County AIS Prevention Plan</u>."

People Doing AIS Work



Map: 38 counties have an AIS Task Force or Committee

1,259 people doing AIS work, including:

<u>Staff</u>

94 full-time staff with an average of 32.7% of their time dedicated to AIS work

54 part-time or seasonal staff with an average of 47.5% of their time dedicated to AIS work

621 Level 1 Inspectors

96 Level 2 Inspectors

Volunteers 394 serving 6,908.25 hours

Many program managers wear multiple hats, that is, AIS duties are just one of many things that they do. Of the 47 counties reporting percent time, there are only eight staff that have 90-100% of their full-time jobs dedicated to AIS work. A majority (52 full-time staff) have less than 50% of their time to focus on AIS.

Of the 42 counties reporting the percent of aid funding that supported staff wages, the average was 50%, with a range from 8% to 100%.

Community Engagement



Map: 26 counties posting AIS information on social media

> Partners 251 Lake Associations

42 Conservation Groups

49 Schools and Youth Groups

99 Businesses

117 Local Governments

AIS Events Held 101

People Reached During Events 14,571

Social Media 629 posts seen by 250,008 followers

Youth Engaged

4,046 children taught about AIS

Seventeen counties worked with Wildlife Forever to sponsor a joint ad campaign during KARE 11's "Cabin Cast." There were 318 spots that ran May through September, which reached 3,004,269 people watching KARE 11. The ads made 11,344,264 impressions and brought 6,316 clicks to the Clean Drain Dry Initiative website.

Community engagement continued



Benton: "The County partnered with CLIMB Theatre on an educational, interactive, YouTube video designed to educate middle schoolers on AIS."



Wabasha: "Aquatic Food Chain Jenga. This activity is an alternative version to Jenga. Students work in teams to predict the outcomes from the event cards and then replicate it on the Jenga model by adding or removing species. Don't let the food chain collapse as AIS is introduced! Through this activity, students will understand and use scientific models, explore the complexity of food chains, make predictions, use cause/effect statements, get familiarized with aquatic concepts and species, and generate awareness about aquatic ecosystems."



Cottonwood: "Earlier this year, a drone was invested with funds from AIS. Soon, we will be able to view the impact of aquatic invasive plants and animals around our lakes and show residents to improve engagement with this issue. Due to Covid-19, engagement with the county was very limited this year."

Nobles: "Nobles County planned program was centered on education of children. The COVID19 pandemic disrupted the ability to provide all the programs that were planned. The funding that was carried over into 2021 will be used for education, carp control and eradication programs, and public education on AIS located in Nobles County."

Nicollet: "Nicollet County continues to work with All Over Media to install pump toppers and posters at several gas stations around the County. We are also working with local radios to advertise 30-second PSAs throughout the watercraft season. This work was coordinated through Wildlife Forever, who supplied the images at gas stations as well as PSAs for the radio. In addition to this work, Wildlife Forever also coordinated another successful campaign with KARE 11 in 2020. From Memorial Day weekend through Labor Day the 'Cabin Cast' campaign leveraged resources from multiple entities across the state and reached nearly 2 million people."

Murray: "With assistance from the local radio station, Murray County Environmental Services staff drafted and recorded three new radio ads to expand AIS knowledge within the County."

Goodhue: "Goodhue County was able to once again participate in a local program where AIS advertisements were published on local radio stations, in a local newspaper and on the radio station's website. We also participated in a program where AIS messages were displayed on local gas station video pumps."

Wilkin: "Wilkin SWCD worked with local sportsman clubs/organization early this year to provide AIS education during youth ice fishing events and tournaments."

Meeker: "Many associations publish their own newsletters with AIS best practices and informative updates on their AIS prevention efforts. In 2020 we redistributed our second set of AIS Clean Drain Dry Boat Towels. We also provided some past years AIS CDD Promotional items at the launch, which were sanitized and wrapped for distribution."

Community engagement continued

Red Lake: "County wide businesses show a willingness to promote Aquatic Invasive Species Prevention by providing educational/promotional materials, provided to them by Red Lake County SWCD, to the public. The Area Businesses really appreciate all the promotional items and they are willing to provide them to the public."



Stevens: "This is an Exhibit that Stevens SWCD teamed up with the local Museum. The exhibit went into detail about the spread of AIS."



Becker: "This postcard was sent to over 700 parcel owners in Becker County, using funds from CAISP and DNR's CBSM Grants."



Stearns: "New in 2019, the AIS Committee undertook an initiative to share program success stories with the public via Stearns County's social media outlets and traditional news outlets. These stories can be found here:

https://www.stearnscountymn.gov/827/Success-Stories. These stories are created as time allows. In addition, the county publishes AIS-related postings to its county-wide social media platforms from time-to-time. In 2020, the county conducted three such postings."



Lake of the Woods: "The partnership of the International Multi-Agency AIS Sub-Committee utilized agencies on both sides of the US-CA border to message out to the public and tourists to Lake of the Woods to keep vigilant with AIS rules. Jointly the agencies collaborated on 3 social media posts at the beginning of the soft water season. The three posts reached 93,401 impressions with 6,994 engagements."



Otter Tail: "We continued our billboard partnership project with our partners, Douglas and Grant Counties. The billboard on interstate 94 was seen by 1,000,000 vehicles between May and September 2020."



Community engagement continued

Pennington: "Curt's NCOR Guide Service: Pennington SWCD sponsors NCOR Guide Service with AIS Prevention Aid. In 2020, NCOR Guide Service wrapped another vehicle with AIS prevention messages. NCOR Guide Service's suburban, tracker, and boat act as a moving billboard/reminder to boaters at the lake to clean, drain, and dry. As a part of this sponsorship, NCOR also posts about clean, drain, dry on his Facebook page and includes segments about the local importance of AIS prevention and clean, drain, dry in his YouTube videos. In a typical year, NCOR Guide Service will appear in local parades and present about AIS prevention at local youth education events. All these events were cancelled this year due to COVID-19."



Marshall: "The picture below is the boat that is used for all of our ongoing AIS on the water social media posts. Due to Covid we were unable to participate the county parade and all of the local towns festivals."



Ramsey: CD3 boat cleaning station at a Ramsey County public water access.



Polk: "Polk County Tool Kit [...] Union Lake in Polk County [...] Inspectors say that people like the tools especially the grabber tools. We have not lost very many but all tools are under \$20 each so we feel this is worth the investment to give the public tools to empower them to have clean boats when entering and when leaving Polk County lakes/rivers."





Douglas: "One of three Aqua Weed Stick Landing Stations installed at Douglas County public water accesses with funds from MN DNR Behavior Change Grant. Photo by Justin Swart."

McLeod: "McLeod County is working with MAJK Solutions to outfit public launches with weed sticks and educational material."



Olmsted: A "newly constructed bump out on our new boat ramp parking lot. This area will eventually have water access, and is to be used as a boat and trailer wash station."



Aquatic Invasive Species Prevention Aid 2020 Accomplishments

Watercraft Inspection



Map: 38 counties have an authorized inspection program

621 Level 1 Inspectors and 96 Level 2 Inspectors

Inspections Performed 470.011

Hours of Inspections Performed 209,004.75

Average 2.39 inspections per hour

<u>Coverage</u>

751 accesses

612 water bodies

Average Percent of Watercraft Recorded as Arriving With the Drain Plugs Out

96.72%

Decontamination Units Operated 37

Boaters Engaged by AIS Volunteers/Ambassadors 2,730

Clearwater: "I guess you could say that despite COVID-19 and everything that came with it, we had a good AIS season this year. We had great inspectors and boaters that were willing to learn. There was a fishing tournament on one of our County's lakes and the local Lake Association really stepped up their volunteering armed with our provided pamphlets during that time. Our staffing agency mentioned this was one of the better years."



Big Stone: "Stopped a boat from entering Big Stone with Zebra Mussels on it."

Blue Earth: "The 2020 Inspection season was successful and uneventful. The County added signs to make the watercraft inspection stations more visible to the public and added additional AIS prevention promotional items including a redesigned towel for boaters and anglers and an ice-pack promoting AIS prevention."



Kandiyohi: "Inspection staff were able to find 144 violations on incoming watercraft and equipment. Finding these violations helps to prevent the spread of AIS and allows an opportunity for one on one education with the boaters on AIS laws and the importance of making sure you clean, drain and dry each time you exit a lake."

Becker: "A Becker County watercraft inspector found and removed adult zebra mussels from 2 watercrafts attempting to enter Bad Medicine lake in 2020. This lake is just south of Itasca State Park, and is known for outstanding scenery, clean water and excellent fishing for both rainbow trout and smallmouth bass. The lake association and township both offered to support extra inspection hours during the early morning hours. It was during these early hours, on 6/19 and 6/27, that the inspector found plants with attached zebra mussels on entering fishing boats. Each of these boats had been used for day trips on Detroit lake during the previous week. The mussels were not found attached to the boats, but to bits of vegetation stuck to the trailers. The inspector removed this material, completed a thorough inspection, and allowed the boaters to launch. DNR enforcement was notified, but it is unknown if any enforcement action was taken."

Cass: "In partnership with the Leech Lake Band of Ojibwe, another decontamination unit was purchased by their program and the plan is to work together on staffing it. The purchase was completed too late in the season in 2020 to utilize Cass County Inspectors, so plans will be developed and refined to utilize the new unit for the entire season in 2021."

Watercraft inspection continued

Crow Wing: "Barb Depaoli Teaching Kayakers how to drain water properly."



Hubbard: "Hubbard County operates a central decontamination station located in the City of Park Rapids where boaters can bring their watercraft, boat lift/dock, and gear to have them inspected and decontaminated by our DNR certified Level 2 inspectors. This decontamination service is at no cost to the boater. In 2020, Hubbard County completed 98 decontaminations. This number was down from years past due to COVID-19 related DNR training delays at the beginning of the 2020 open-water season."

Aitkin: "We also own and use 3 decontamination units throughout the County. Where these units are close to other counties we agree to share the decontamination units. Boater compliance is very high in Aitkin County. We typically staff 20 or more public accesses on weekends and holidays."

Scott: "Contracted watercraft inspections on Prior Lake in 2020 found aquatic plants (54 times entering/228 times exiting), mud (7 times entering/14 times exiting), and zebra mussels (0 times entering/2 times exiting). The inspections prevented the movement of two different boats with zebra mussels from exiting the lake and infesting other lakes."

Koochiching: "Collaboration with North St. Louis SWCD to provide inspections at Kabetogama Lake and Ash River in northern St. Louis County. This collaboration provided Koochiching County with funds to staff inspectors at 2 landings on Kabetogama Lake and Ash River throughout the summer. The reason for this collaboration was to fill a need for inspections that NSL SWCD could not fill due to the travel distance. Koochiching inspectors spent just under 800 hours at these sites this year and completed over 2500 inspections. This collaboration provided coverage on a heavily used landings in northern Minnesota that is home to many resorts and camping opportunities."



Enforcement



Map: 22 counties actively enforcing AIS laws

Funds Supported AIS Work by Local Law Enforcement Officers \$122,737.99

Local Law Enforcement Officers Trained on AIS Laws 95

> Local Law Enforcement Officers Conducted AIS Work 105

Boaters Contacted by Local Law Enforcement 5,483

Otter Tail: "We continue to partner closely with the Otter Tail County Sheriff's Department. Deputy Paul Peterson began serving as the new AIS Deputy in July 2020. Deputy Peterson met 267 watercraft and provided a visible reminder of Otter Tail County's commitment to Aquatic Invasive Species Prevention."

Nicollet: "Nicollet County's sheriff's department was able to provide support by discussing Clean, Drain, Dry with boaters they encounter in the Minnesota River, Swan Lake, and our other County water resources."

Aquatic Invasive Species Prevention Aid 2020 Accomplishments



Map: 41 counties surveyed lakes and rivers

Lakes and Rivers Surveyed 605

Early Detection Surveys Conducted 562 surveys on 406 water bodies

Zebra Mussel Settling Plates Deployed 402 plates on 144 water bodies

Zebra Mussel Veliger Tows Taken 185 tows on 104 water bodies

Aquatic Plant Surveys Conducted 385 surveys on 192 water bodies

People Conducting Surveys 65 AIS Detectors

183 people participated in Starry Trek in 20 counties

Carver: "Despite the challenges of COVID-19, we were able to continue our AIS Monitoring Program where two interns travel around the county and survey accessible waterbodies for new AIS introductions. We completed over 50 surveys on 20 waterbodies, with thousands of survey points. Not only can these surveys help find new AIS introductions, but they also help document trends in aquatic plant communities across the county."

Carlton: "An aquatic vegetation access survey was conducted on 14 area public accesses by RMB Environmental Laboratories, Inc. No new infestations were found, and many beneficial native plants were present in all the lakes. The report concluded that lakes in Carlton County appear healthy overall, and further stated that many of the lakes are not heavily developed which promotes healthy water quality." Martin: "Martin SWCD conducted launch site inspections periodically throughout the year. Surveying launch sites for aquatic vegetation and zebra mussels. Zebra mussel sampling plates where installed on 5 area lakes with the most boating activity. Curly leaf pondweed was the only invasive aquatic plant found in the lakes. Population densities were not at concerning levels. Launch accesses, Docks, and buoys where inspected at the end of the boating season on ten area lakes. No zebra mussels were found in Martin County."

Kanabec: "During the 2020 Kanabec AIS Starry Trek event no invasive species were sampled from the surveyed public accesses on Pomroy, Knife, Fish, and Lewis Lakes."

Sherburne: "Starry Trek volunteers gather equipment (photo by Sanford Smith)."



Todd: "Action on Lake Osakis- Todd County- August 2020 AIS Watercraft Inspection and UMN Starry Trek Event."



Monitoring continued

Winona: "Michael Ellman holding Chinese Mystery Snails found at Riley's Lake near Winona Airport. Photo Credit: Amanda Gentry"



Lac qui Parle: "This year Marsh Lake had a large multiyear project completed that installed a water control structure, fish passage and fish spawning area. As part of its completion, monitoring has to take place for the next few years, with a portion of monitoring focusing on AIS." Photo: "Rhyan Schicker and Quintin Peterson sein along the shoreline at Marsh Lake."



Sibley: Carp monitoring.



Swift: "Did water sampling for a carp study on Marsh Lake as they draw it down. Monitored and sampled for other AIS as well."



Brown: "Water quality monitoring, mid-summer, at Sleepy Eye Lake."



Chisago: "In 2020, Chisago County collaborated with the National Park Service and St. Croix River Association (SCRA) to monitor for zebra mussel veligers and spiny waterflea in twelve County lakes and rivers, including Comfort, Fish, Horseshoe, Kroon, Little, Little Green, North Center, North Goose, Rush, South Lindstrom and Spider Lakes and the Sunrise River at Kost Dam. This was part of a larger St. Croix basin, regional Minnesota/Wisconsin program. Zebra mussel veligers were present in Comfort Lake, which has an established population of zebra mussels. No zebra mussel veligers or spiny waterfleas were found at any of the other Chisago County sites."



Beltrami: "I had a couple of inspector's participate in some eDNA research projects this season. Pictures show collecting water samples to pull eDNA."



Cook: "The story of rusty crayfish trapping in Caribou Lake may not be a true success because rustys were confirmed. However, it is considered a success because traps were set at the public access (trap 8 on the map) for the previous 4 years with no rustys present. This year, with the help of the U.S. Forest Service Gunflint District, traps were set near the inlet from rusty infested Pike Lake and rustys were found along the north shore of Caribou. The upcoming years will bring opportunities to monitor this lake for the dispersal of crayfish, as well as, manage the established population." ... "The invasive *Orconectes rusticus* was found. Photo Credit: Hannah Hill, Fisheries Technician USFS"



Lake: "Ely High School Student Abbie Rehbein went out twice a week throughout the summer to trap invasive crayfish and perform early detection surveys. She also wrote an article about her experience that was published in two local newspapers!"



New Infestation Response



Map: 18 counties have a new infestation response plan

Responses Coordinated 23

Le Sueur: "A new infestation of Eurasian Watermilfoil was found on Upper Sakatah Lake this late summer. The infestation was small and sparse. Plants were present in relatively shallow water along the southern shoreline. Le Sueur County, Minnesota DNR, and the Waterville Lakes Association worked together to come up with plan to address the new infestation. Neighboring Counties and Soil & Water Conservation Districts, lake associations, and watercraft inspectors were notified immediately from Le Sueur County. Additionally, an article was posted in the local newspaper. Notification, permitting, and treatment were completed within a 4-week timeframe. The communication efforts as well as responses from all organizations involved made the response to the new infestation quick and effective. There will be follow up surveys from the Minnesota DNR next year to see if the chemical treatment was successful."

"Survey of New Eurasian Watermilfoil Infestation on Upper Sakatah Lake created by Minnesota DNR, AIS Specialist, Carli Wagner."



Itasca: "On July 22nd and 23rd, 2020 our AIS Control & Monitoring crew discovered two separate patches of Curly Leaf Pondweed on opposite ends of Deer Lake that covered a total of 5100 sq ft in area. Upon further inspection of the sites, it was found that the plants were rooted in very soft substrate in shallow water which would allow for easy handremoval of the plants without a crew of divers. Chris Evans quickly contacted DNR Aquatic Invasive Species Specialist, Rich Rezanka and the Deer Lake Association to coordinate a Curly Leaf removal event. The event took place on August 4th with six Control & Monitoring Technicians and five members of the Deer Lake Association working together to uproot the plants, transport them to shore in Rubbermaid bins, and dump into a trailer to be moved off-site. Every Curly Leaf Pondweed plant located was removed from the Lake. Deer Lake will be monitored, and a similar management plan will be implemented in future seasons to maintain control of the invasive plant."

"Two Control & Monitoring crew members uprooting Curly Leaf Pondweed by hand; Deer Lake."



Invasive Aquatic Plant Management (IAPM)



Map: 23 counties funded IAPM projects with AIS Prevention Aid

Funds Used for IAPM \$516,694.72

Water Bodies with IAPM Activities 176

Groups Involved in IAPM Activities 71

Additional Funds Leveraged for IAPM Activities \$276,863.32

Dakota: "Native species being planted along shoreline in Eagan."

