

# Project Summary to St. Louis County

## Aquatic Invasive Species Prevention Program

### 2024 Watercraft Inspection Season

#### A. Successes

The North St. Louis Soil and Water Conservation District received St. Louis County Aquatic Invasive Species (AIS) Prevention funds to operate an AIS watercraft inspection and decontamination program at 23 lakes: Bassett<sup>1</sup>, Bear Island, Birch, Burntside, Cadotte<sup>1</sup>, Crane, Eagles Nest #2, Eagles Nest #3, Ely, Gilbert Pit<sup>3</sup>, Indian<sup>1</sup>, Johnson, Kabetogama<sup>1</sup>, Little Sturgeon, One Pine, Pelican, Perch, Salo<sup>1</sup>, Shagawa, Sturgeon, Vermilion<sup>2</sup>, Whiteface Reservoir, and Whitewater Lakes. Measurable results from the 2024 program include:

- Between May 6<sup>th</sup> and October 20<sup>th</sup>, a total of **21,387** inspections plus **145** decontaminations occurred on 38 public accesses and 14 private accesses.
  - Public Access Inspections<sup>2</sup>: completed 20,785 watercraft inspections out of the goal of 29,987 or 69%
  - Private Access Inspections: completed 1,682 watercraft inspections out of the goal of 2,400 or 70%
  - Decontaminations: completed 145 decontaminations out of the goal of 775 or 19%
  - Two seasonal Inspector Supervisors were hired. The supervisors worked with inspectors, were the first to address any issues that arose with equipment, decontamination units, or inspector performance. They also monitored lakes for new AIS infestations and assisted with public outreach events.
  - 26 Inspectors worked 10,487 hours out of the goal of 12,768 or 82%
  - 7 Level 2 Inspectors (decontamination trained) worked 3,122 hours out of the goal of 3,928 or 79%
  - Inspector staffing averaged **1.97** inspections per hour, over of the **>1.7** inspections per hour season goal.
- Trainings and meetings

A hybrid training process provided by the Minnesota Department of Natural Resources (MNDNR) to effectively and efficiently train inspectors continued. This hybrid system allowed returning inspectors with multiple years of experience to complete only online training. Both online and in-person training was required for inspectors who had been authorized in 2022 and not years prior, have skipped year(s), or were new to the watercraft inspection program.

The District utilized 26 new and returning inspectors (23 through NSLSWCD, 1 through Koochiching County, and 2 through Lake SWCD) and scheduled them at public water accesses starting May 6<sup>th</sup>, the Monday before the MN Fishing Opener weekend. Four inspectors left the program before the end of the summer to make 22 available inspectors for most of the 2024 inspection season. Every attempt was made to staff new inspectors with returning inspectors during their first shift to allow them to observe experienced inspectors, ask questions, and receive feedback on their performance before working a shift on their own. If this was not possible, the inspector supervisor or AIS Program Coordinator stayed with the new employee during the first few inspections to make sure they felt comfortable with the inspection process.

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<sup>1</sup> The District has an Agreement for Service with Koochiching County Environmental Services & Lake SWCD to complete inspections on Lake Kabetogama via Koochiching SWCD and Bassett, Cadotte, Indian, and Salo via Lake SWCD inspectors. These agencies are closer to these locations making them more suitable to hire and supply inspectors to these locations. The inspection data collected by the Koochiching and Lake SWCD inspectors is presented in this report. Services provided by NSLSWCD inspectors for inspections completed on the Lake Co. is also partially represented in this report.

<sup>2</sup> This included four private accesses (Muskego Pt. Resort, Pehrson's Lodge, Vermilion Dam Lodge, White Eagle Lodge) on Lake Vermilion that were staffed by NSL SWCD watercraft inspectors (when possible).

<sup>3</sup> Low water levels at the Gilbert Pit public water access made it unsafe to launch trailered watercraft for the duration of the 2024 open water season. The City of Gilbert had closed the public water access during this time.

Level 2 training for decontamination operators was also a hybrid training process provided by the MNDNR. Similar to the Level 1 training requirements, the extent of online and in-person training depended on previous authorization status, if any. The District was able to utilize seven level 2 inspectors for most of the inspection season.

AIS training continued with an online, program-specific, training which included a recorded video introduction to the District's specific protocols, chain of command, as well as gear and tablet information. This online training helped streamline communication and clarified how to respond to boater violations, scheduling conflicts, and other program specific questions.

The District utilized an online work chat and email to communicate with all inspectors to provide updates and answer any questions that came up throughout the season. The inspector supervisors also checked-in with the inspectors throughout the season to answer any questions, up-channel any concerns, provide resources, and ensure the inspectors had properly functioning equipment and sufficient supplies to complete their duties.

In addition, monthly inspector "enhanced training" sessions were held online and in-person at the Greenwood Township Hall (Lake Vermilion). The trainings provided inspectors with increased knowledge of topics within the AIS program. This year inspectors learned about new and existing AIS threats from the regional MNDNR AIS Prevention Planner. They also learned about spiny waterfleas from a University of Minnesota Duluth professor. To round out their training, a brief overview of starry stonewort identification and spread so far was presented by the NSLSWCD AIS Program Coordinator.

On September 24<sup>th</sup>, the District hosted an in-person inspector meeting to discuss the success and struggles of the 2024 inspection season and to gain valuable insight from the inspectors. The inspectors continued to laud the public's perspective of the AIS program and had very few issues throughout the season. This meeting was a great way to get the inspectors' perspectives of what is working well and how to improve the program. An emphasis was placed on thanking the inspectors for their contributions to the AIS prevention program. We wanted them to know their work is appreciated.

- Tracking Hours Worked at Accesses

The AIS Program Coordinator has continued to monitor inspector time to close the gap between Target Hours Scheduled and Hours Worked by tracking hours weekly. In 2024, there were very few adjustments made to the inspector schedules. The inspectors were mostly reliable and showed up for their scheduled work hours.

Scheduling flexibility and adjustments throughout the inspection season is an important part of the success of the watercraft inspection program. Having a reliable inspector group is also critical to the program. Occasional check-ins by the inspector supervisors and the AIS Program Coordinator ensured inspectors were working their scheduled shifts. Reviewing the difference between hours worked vs hours scheduled on weekly inspector timesheets also showed how frequently shifts were missed. Most shifts were missed due to sickness, car issues, family emergencies, or other personal issues. These unforeseen situations usually did not allow enough time to find replacements to cover the inspectors' scheduled shift, but efforts were made to try and cover all the shifts when possible.

The largest variations in the hours worked throughout the season versus the targeted hours available for 2024 were seen at Vermilion, Pelican, and Kabetogama (Table 1). These variations are due to the lack of staff available to fill all the available shifts. Although most sites were staffed on the weekends, other weekdays around the weekends were left open. Hiring a full complement of inspectors in the future will help close the gap between the hours available and hours worked in the future.

Decontamination units continued to be strategically placed around the District to offer services to as many boaters as possible. Like last year we occasionally staffed Level 1 and Level 2 inspectors together at busier locations to help free up an inspector to focus on decontamination. Limited staffing did not allow this to occur as frequently as 2023 which may have resulted in the lower decontamination numbers for 2024. The only downfall to double-staffing at a site is that it takes away from the inspector availability at other locations. Some decontamination areas have limited staff available to operate the units leaving them occasionally not staffed. This is seen most frequently at Pelican and Ely lakes. These factors all impacted the total difference in the hours worked versus the targeted hours identified prior to the beginning of the 2024 inspection season.

As the program continues to develop, we hope to consistently hire and retain more inspectors to help minimize the gap between seasonal goals and actual hours worked. We will continue to monitor the hours logged by the inspectors to ensure scheduled staff are working the shifts assigned.

**TABLE 1**

<b>Region</b>	<b>Sum of Hours Worked</b>	<b>Sum of Hours Scheduled</b>	<b>Target Hours (2024)</b>	<b>Difference Hours Worked vs. Hours Scheduled</b>	<b>Difference Hours Scheduled vs. Target Hours</b>	<b>Difference Hours Worked vs. Target Hours</b>
Ely (area) Level 1	611	608	640	3	-32	-29
Ely (area) Level 2	1,043	1,044	992	-1	52	51
Burntside, Eagles Nest #2&3, Shagawa Total	1,654	1,652	1,632	2	20	22
Babbitt (area) Level 1	448	456	528	-8	-72	-80
Bear Island, Birch, Johnson, One Pine Total	448	456	528	-8	-72	-80
Chisholm (area) Level 1	540	544	632	-4	-88	-92
Little Sturgeon, Sturgeon, Perch	540	544	632	-4	-88	-92
Gilbert / Hoyt Lakes Level 1	731	766	539	-35	227	192
Gilbert / Hoyt Lakes Level 2	338	350	352	-12	-2	-14
Ely Lake, Gilbert Pit, Whiteface Res, Whitewater Total	1,069	1,116	891	-47	225	178
Pelican Level 1	223	232	528	-10	-296	-306
Pelican Level 2	107	104	224	3	-120	-117
Pelican Total	329	336	752	-7	-416	-423
Vermilion Level 1	4,001	4,129	4,904	-128	-775	-903
Vermilion Level 2	1,253	1,296	1,296	-44	0	-44
Vermilion Total	5,253	5,425	6,200	-172	-775	-947
VNP Level 1 (including Koochiching inspectors)	772	768	1,136	4	-368	-364
VNP Level 2	382	368	864	14	-496	-483
Kabetogama/Crane Total	1,153	1,136	2,000	17	-864	-847
Lake SWCD Inspectors	64	64	80	0	-16	-16
Bassett, Cadotte, Indian, Salo	64	40	80	0	-16	-16
Trainings/Extra Meetings	217	217	480	0	-263	-263
<b>Total Hours:</b>	10,727	10,922	13,195	-219	-2,249	-2,468

Table 1: The differences between hours that were targeted at the beginning of 2024 (Target Hours) vs. the hours that were scheduled throughout 2024 (Hours Scheduled) vs. the hours that were actually worked throughout 2024 (Hours Worked) at each location. The District contracted with Koochiching County/SWCD to provide services/hours at Kabetogama Lake, and with Lake SWCD for services in the southeastern part of the District (Bassett, Cadotte, Indian, and Salo).

- Inspections per Hour Rate

The efficiency of the watercraft inspectors continues to be a key metric of the District’s watercraft inspection program. Aside from conducting boat access traffic analysis like the one conducted by the Vermilion Lake Association in 2021, the efficiency of the watercraft inspectors is the only way we can gage the level of activity at an access. The goal is to target lakes/accesses and times throughout the day for the watercraft inspectors to interact with as many people and inspect as many boats as possible. There is also value in providing inspectors at lakes with lower traffic to ensure we are capturing a variety of watercraft users in various locations. Efficiency targets are set prior to the beginning of the watercraft inspection season based on historical data and anticipated goals for each location.

**TABLE 2**

Lake	2024 Target		2024 Actual	
	Inspection Target	Efficiency Target per Hour	Inspection Actual	Efficiency Actual per Hour
Bassett	24	>1.2	17	0.62
Bear Island	48	>1.5	23	0.57
Big Bear	15	>1.5	0	0.00
Birch	1,350	>3	1,090	2.78
Burntside	1,500	>2	1,251	*1.71
Cadotte	30	>2	18	1.20
Crane	1,500	>2	1,139	*1.82
Eagles Nest #2	72	>1.5	14	0.44
Eagles Nest #3	48	>1.5	27	0.84
Ely Lake	975	>1.7	1,202	*1.21
Gilbert Pit	300	>1.2	0	0.00
Indian	20	>1	5	0.29
Johnson	24	>1	0	0.00
Kabetogama	3,500	>2.8	1,087	2.06
One Pine	24	>1	8	0.50
Pelican	1,650	>2.2	314	*0.95
Perch	32	>1	14	0.58
Salo	15	>1.5	3	0.63
Shagawa	1,600	>2	1,433	*1.67
Sturgeon Chain	960	>1.6	826	1.6
Vermilion	16,100	>2.6	12,170	*2.32
Whiteface Reservoir	70	>2.2	76	2.36
Whitewater	70	>2.2	59	1.26
White Iron	60	>1.1	12	0.50
<b>TOTAL</b>	<b>29,987</b>	<b>&gt;1.7</b>	<b>20,788</b>	<b>1.97</b>

Table 2: The number of inspections and efficiency completed at each access (2024 Actual), compared to the number of inspections and efficiency targeted (2024 Target). Efficiencies with a “\*” are sites with both Level 1 and Level 2 inspectors work, sometime simultaneously. All hours and inspections are combined at these sites.

During the 2024 season, many of the returning inspectors had noted lower access use throughout the season. Compared to 2023, inspections were down by over 1,600 inspections validating the inspector’s insight. Lower traffic resulted in missing the target inspections for all but two lakes (Ely Lake & Whiteface Reservoir). This directly impacted the efficiency rates, resulting in only the Whiteface Reservoir exceeding the inspection per hour target (Table 2). There continues to be certain accesses that are very busy and others with low boat traffic (Table 3). Ideally, we would like to see an efficiency rate of 1.5 inspections per hour or above, and 15 of the 44 accesses achieved this rate.

**TABLE 3**

<b>Region/Lake</b>	<b>Lake (Landing)</b>	<b>Hours Worked</b>	<b>Total Inspections</b>	<b>Efficiency (Inspections/Hour)</b>
Lake Co.	Fall Lake (campground)	404.25	1361	3.37
Vermilion	Moccasin Pt.	717	2374	3.31
Vermilion	* Hoodoo Pt. N.	1581.5	4986	3.15
Babbitt	Birch (South)	367.75	1062	2.89
Vermilion	Timbuktu	223	567	2.54
Gilbert / Hoyt Lakes	Whiteface Reservoir	32.25	76	2.36
VNP	* Crane (Waters Edge)	406.5	855	2.10
Koochiching SWCD	* Kabetogama	528.25	1087	2.06
Lake Co.	Moose Lake	118.5	232	1.96
Vermilion	Everett	758.5	1349	1.78
Vermilion	Frazer Bay	427.75	754	1.76
Ely	* Burntside (Van Vac)	715.5	1248	1.74
Vermilion	Black Duck	690.75	1194	1.73
Ely	* Shagawa (Sandy Pt.)	858.25	1433	1.67
Chisholm	Little Sturgeon (Rudstrom)	508.25	819	1.61
Vermilion (private)	Vermilion Dam Lodge	63	89	1.41
Vermilion	Petersons/Wakemup Bay	171.75	237	1.38
Lake Co.	Farm Lake	24.5	32	1.31
VNP	Crane (East)	218.5	284	1.30
Gilbert / Hoyt Lakes	Whitewater	46.75	59	1.26
Gilbert / Hoyt Lakes	* Ely Lake	989.75	1202	1.21
Lake SWCD	Cadotte	15	18	1.20
Babbitt	Birch (West)	24	28	1.17
Lake Co.	Snowbank Lake	61.75	67	1.09
Pelican	Orr Bay	249.25	258	1.04
Vermilion	Head of Lakes	620	620	1.00
Chisholm	Sturgeon (McCarthy State Park)	8	7	0.88

Lake Co.	Tofte Lake	23	20	0.87
Ely	Eagles Nest #3	32	27	0.84
Pelican	Saunders Bay	80	56	0.70
Lake SWCD	Salo	4.75	3	0.63
Lake SWCD	Bassett	27	17	0.63
Babbitt	Bear Island (South)	24.25	15	0.62
Chisholm	Perch Lake	24	14	0.58
Babbitt	Bear Island (NE)	16	8	0.50
Babbitt	One Pine	16	8	0.50
Lake Co.	White Iron (North)	24	12	0.50
Ely	Eagles Nest #2	32	14	0.44
Lake SWCD	Indian	17	5	0.29
Ely	Burntside (North)	16	3	0.19
Babbitt	Johnson Lake	0	0	NA
Gilbert / Hoyt Lakes	* Gilbert Pit (Ore-Be-Gone)	0	0	NA
Vermilion (private)	Muskego Pt Resort	0	0	NA
Vermilion (private)	Pehrson Lodge	0	0	NA

Table 3: The rate of inspections per inspector hour worked at each of the lakes and accesses, in descending order. Accesses with both Level 1 and Level 2 Inspectors are combined for that site and annotated with a “\*” before the lake landing name. Watercraft inspections in Lake Co. were a result of an agreement by Lake SWCD. The District also contracted out Kabetogama inspection services to the Koochiching SWCD.

- Decontamination Units

The northern St. Louis County region have a total of eight decontamination units to operate. The plan at the beginning of 2024 was to operate one of the Districts units at the Hoodoo Point North landing on Lake Vermilion, another would be operated at the Pelican-Orr Bay landing, and the third would split time between Ely and Ore-be-Gone lakes. The two units owned by the City of Ely would remain at the Burntside (Van Vac) landing and Shagawa’s Sandy Point landing. Voyageurs National Park also owns three units, with one operated by National Park staff at the Kettle Falls portage between Rainy and Namakan lakes. Another unit would be operated by Koochiching inspectors on Kabetogama Lake, and the third unit would operate at the Crane-Waters Edge landing. The Kettle Falls and Vermilion units are operated seven days a week while the others would be available primarily on weekends and holidays.

Staffing limitations, an access closure, and disabled units resulted in the reduction of decontamination unit opportunities. With the Ore-be-Gone access being closed throughout 2024 one unit remained at the Ely Lake access. Two of the three Voyageurs units were not operational throughout the season. This left Pelican and Crane Lakes to share a unit, while Kabetogama Lake did not have any decontamination units available in 2024. The other units operated as planned but with a shortage of staff, target level 2 hours were not met.

Since the discovery of zebra mussel veligers in the Black Bay of Rainy lake the VNP have operated a decontamination unit on the Kettle Falls portage in efforts to prevent the spread to any other lakes. Every boat that passes through this portage is decontaminated by NPS staff. We do not track how many decontaminations are conducted on the portage, but we are able to track services performed at the other locations (Table 4).

**TABLE 4**

Lake	Landing	Decons	Sum of Hours Worked	Decons/ Level 2 Hours	Entering Totals	Exiting Totals	Courtesy Totals
Shagawa	Sandy Point	43	616	0.070	4	25	14
Burntside	Van Vac	13	427	0.030	1	11	1
Ely	Ely	30	337.75	0.089	0	27	3
Vermilion	Hoodoo Pt. N.	46	1,252.50	0.037	10	26	10
Pelican	Orr Bay	4	106.75	0.037	2	0	2
Crane	Water's Edge	9	381.5	0.024	3	4	2
	<b>Total:</b>	<b>145</b>	<b>3,121.50</b>	<b>0.046</b>	<b>20</b>	<b>93</b>	<b>32</b>
	<b>2023 reference</b>	<b>323</b>	<b>3,030.50</b>	<b>0.107</b>			
	<b>2022 reference</b>	<b>102</b>	<b>3,593.25</b>	<b>0.028</b>			
	<b>2021 reference</b>	<b>195</b>	<b>2,873.75</b>	<b>0.068</b>			
	<b>2020 reference</b>	<b>130</b>	<b>1,749.50</b>	<b>0.074</b>			
	<b>2019 reference</b>	<b>241</b>	<b>3,720.50</b>	<b>0.065</b>			

Table 4: The number of decontaminations completed at each lake and access and decon/ hour efficiency. Compare to the last five years. Only stations where level 2 inspector hours were recorded are shown. The decontaminations conducted at the Kettle Falls portage by NPS staff is not displayed in this table.

During the 2024 season, the District was able to utilize seven level 2 inspectors to perform decontamination services at the five units around North St. Louis County. The Inspector Supervisors and AIS Program Coordinator are also Level 2 trained and would open/operate the units when necessary. The program nearly reached the 5-year average of 198 decontaminations. There is still a large number of watercrafts that could benefit from the service who are still not participating in the program.

The inspectors continue to observe the owner’s pride and very clean watercraft showing up at the accesses. With the higher levels of exiting decontaminations, it is apparent that boaters are becoming more apt to keep their boats clean before heading to another lake or home. Most of the decontamination units are placed on lakes with known AIS infestations. To prevent the spread of AIS from these bodies of water all watercraft leaving these lakes should be decontaminated to remove and kill any potential aquatic hitchhikers. If we decontaminated every exiting boat where a decontamination unit was present at infested waters the program would record thousands of decontaminations. The program still has a lot of work to convince all boaters to decontaminate after leaving a lake or prior to showing up to a new lake access.

Seasonal staff are trained in performing weekly maintenance to each unit and are able to identify/report any issues with the machines to the AIS Program Coordinator. Typically, minor issues can be resolved by the District staff. Two Voyageurs National Park units had significant issues leaving them unavailable for the entire 2024 season. Keeping the units operational is integral to the program’s success and the District will continue to service and maintain the units so they are operational throughout the open water seasons.

- Private Access Partnerships

In 2024, eleven resorts, campgrounds and marinas engaged in watercraft inspections at their private accesses. Eight partners on Lake Vermilion and three partners on Pelican Lake. The total number of inspections conducted at each resort can be found below in Table 5.

**TABLE 5**

Lake	Resort Name	Number of Inspections
Vermilion	Fortune Bay Resort Casino	643
Vermilion	Glenmore Resort	11
Vermilion	Head-O-Lake Resort	242
Vermilion	Life of Riley Resort	48
Vermilion	Retreat Lodge	261
Vermilion	Vermilion Houseboats	48
Vermilion	Whispering Winds Resort	202
Vermilion	Grubens	54
Pelican	Birch Forest Lodge	94
Pelican	Richardson's Shangri-La Resort	37
Pelican	Island View Resort	42
	<b>Total</b>	<b>1682</b>

Table 5: Number of inspections completed at private accesses by resorts, campgrounds, and marinas.

In order to perform inspections, each resort employee performing the inspections must complete an online and/or in-person training that directly resembles the inspector training District inspectors go through. Once completed the resorts receive a tablet, or the inspection survey is loaded to their cellphones to collect survey data. The Resort Inspection Survey is a replicate of the DNR Inspection Survey, with its own separate database managed by the District. Private access partners have varying abilities to provide staff for inspections. Resorts utilizing a survey to record inspections have an option to be paid \$9 per inspection uploaded (a \$2/inspection increase from previous years). Most partners take this incentive in order to cover the cost of having a staff person conduct inspections.

Additionally, the District has partnered with three resorts with higher traffic to place a District inspector at their accesses. Vermilion Dam Lodge, Muskego Pt Resort, and Pehrson Lodge all partnered in this program, but staffing limitations only allowed for inspectors to occasionally operate out of the Vermilion Dam Lodge. The Vermilion Dam Lodge hosts fishing tournaments and league days out of their access, therefore, are of particular priority for hosting an inspector.

In addition to offering the inspection program to the resorts, we also provide a number of educational materials to the resorts to hand out to their guests. Even if the resorts choose not to participate in the inspection program, most are willing to make the educational materials available for their guests. Supporting the resorts will continue to be a priority for the Districts AIS program as they are an important contact point for those visiting our region. The more we can do to help them reduce the risk of spreading AIS will help in preserving the lakes they make a living on and will boost our AIS prevention efforts.



- Partnership with Fishing Tournament Directors

The District continues to collaborate with the Vermilion Lake Association (VLA) to work with fishing tournament directors to strive for a 100% inspection rate of all tournament boats prior to their launch in Lake Vermilion. For each tournament, we provided a list of planned inspection and decontamination hours and locations for pre-fishing days and tournament day.

This season, we continued to utilize the DNR-permitted AIS Rules and Compliance Certification Form that was enacted in 2021. The tournament directors were cooperative. We get the sense that participants are onboard with AIS prevention.

In addition to tournaments on Lake Vermilion, we also collaborated with the organizers of the Walleye Whamma tournament on Birch Lake. Along with support from the 1854 Treaty Authority, we provided inspectors, and a decontamination unit was available on site the morning of the tournament. All the watercraft launching at the Birch South & West accesses (launch points for the tournament) were inspected prior to entering the lake. AIS prevention trinkets were also provided to the tournament organizers to add to the participants swag bag. This was a great addition to the Districts AIS prevention program and plan on continuing this collaboration into the future.

- Early Detection for new AIS infestations

Seasonal and District staff completed early detection surveys on 41 lakes, looking for new AIS infestations (lakes detailed in Table 6). Visual shoreline investigations were conducted at the lakes public water accesses. In addition to the visual observations, the staff threw a double-headed rake, attached to a rope, into the lake in three different directions while standing on a dock, pier, or by shore (when possible). The rake is pulled back to shore after each throw. All vegetation and attached invertebrates on the rake was identified. Any vegetation that looked like an invasive species or could not be identified was collected and brought back to the AIS Program Coordinator for further investigation.

In conjunction with shoreline observations, zebra mussel monitoring plates were deployed in ten lakes around the region. The plate remained in the lakes throughout most of the open water season to allow for any unknown zebra mussel populations to settle on the plates. All but one plate (Miners Pit) was recovered after soaking for a few months. No new infestations were observed and the plate in the Gilbert Pit was completely inundated with mussels in all stages of life, these plates will be used for educational purposes. These plates will continue to be a valuable resource in our early detection efforts and will be rotated throughout the lakes in the region, starting with and continually prioritizing the lakes with highest risk of contracting a zebra mussel infestation.

New to our early detection arsenal in 2024, the District purchased a zooplankton monitoring net to search for new spiny waterflea infestations. The net was used to investigate rumors of infestations in White Iron and Birch Lakes. We also conducted a survey on Eagles Nest #2. No new spiny waterflea infestations were found. The net was also used to collect spiny waterflea samples from Burntside Lake for educational purposes.

Six new infestations were detected in 2024 from the early detection sampling initiative. This included the observation of Chinese Mystery Snails (*Cipangopaludina chinensis*) in five lakes (Whitewater, Dewey, McQuade, Lost, and Silver) and Purple Loosestrife (*Lythrum salicaria*) on one lake (Long Lake). These new detections are likely not new to local residents but were previously not identified in the tracking database (EDDMaps). They have since been added and verified in the tracking database.

Early detection efforts will continue to play a big role in the AIS prevention program. The ultimate goal is to visit all lakes with public access in the District to identify any previously unidentified AIS infestations. This information is valuable for informing the public and tailoring future program initiatives.

**Table 6**

<b>Visual Observation / Rake Throws</b>			
<b>Water Body Name</b>	<b>Access/ Location Name</b>	<b>Water Body Name</b>	<b>Access/ Location Name</b>
Ash Lake	Public Access	Johnson Lake (nr Babbitt)	Public Access
Elephant Lake	Public Access	Bear Island Lake	South Access
Black Duck Lake	Public Access	Birch Lake	West & South Access
Moose Lake	Public Access	Dewey Lake	Public Access
Crane Lake	Public Access	Long Lake	Public Access
Echo Lake	Public Access	Shoe Pack Lake	Public Access
Kjostad Lake	Public Access	McQuade Lake	Public Access
Myrtle Lake	Public Access	Pleasant Lake	Public Access
Pelican Lake	Public Accesses	Lost Lake	Public Access
Elbow Lake	Public Access	Bass Lake	Public Access
Ban Lake	Public Access	Silver Lake	Public Access
Burntside Lake	Van Vac / North	Bassett Lake	Public Access
Shagawa Lake	Public Accesses	Caddotte Lake	Public Access
Little Long Lake	Public Access	Salo Lake	Public Access
Bear Head Lake	State Park Access	Whiteface Reservoir	State Park Access
Eagles Nest #3	State Park Access	Murphy Lake	Public Access
Eagles Nest #2	Public Access	Elliot Lake	Public Access
Armstrong Lake	Public Access	Section Fourteen Lake	Public Access
One Pine Lake	Public Access	Vermilion Lake	Public Accesses
Whitewater Lake	Public Access	Miners Pit	Public Access
<b>Zebra Mussel Settling Plates</b>			
<b>Water Body Name</b>	<b>Access/ Location Name</b>	<b>Water Body Name</b>	<b>Access/ Location Name</b>
Gilbert Pit	<i>samples collected</i>	Bear Island Lake	Bear Island (S)
Whiteface Reservoir	USFS Campground (N)	Shagawa Lake	Sandy Point Public Access
Birch Lake	Public Access (S)	Pelican Lake	Orr Public Access
Little Sturgeon Lake	Rudstrom Public Access	Crane Lake	Public Access (W)
Whitewater Lake	Public Access	Miners Pit	Public Access
<b>Siny Waterflea Plankton Tows</b>			
<b>Water Body Name</b>	<b># - sample type</b>	<b>Water Body Name</b>	<b># - sample type</b>
White Iron Lake	3 - vertical	Birch Lake	6 - vertical / 1 - horizontal
Eagles Nest #2	3 - vertical	Burntside Lake	<i>samples collected</i>

Table 6: Lakes and access locations sampled during the 2024 early detection surveys. Newly observed and recorded AIS infestations are represented by the highlighted lakes.

- AIS Boundary Waters Collaborative (ABC) Sign Enhancement

The District continues to collaborate with AIS Boundary Waters Collaborative (ABC). The group’s focus is to prevent the spread of AIS in the BWCAW by meeting the Midwest Active Citizenship Initiative (MACI) criteria for a stage 2 civic organization to continue expanding its base of partners. In 2024, the group focused on opportunities to secure funding to install AIS prevention tools at public accesses and working with organizations and public outreach event to spread awareness of AIS concerns.

- Outreach and Education

The District continued to promote AIS initiatives in 2024 by partnering with White Iron Chain of Lakes Association to assist with an AIS outreach booth at both the Blueberry Festival. Additionally, the District has continued with social media posts on AIS related topics, as well as writing and co-writing articles for local newsletters.

We also continued to engage with the public to teach about AIS at meetings, events, programs, and any other venue that would be ideal for educating about AIS and AIS prevention. In 2024, we connected with nearly 500 people around the community to educate about AIS. We also continued to teach the public how to conduct proper watercraft inspections with a booth that had a boat spiked with AIS and boating issues. Participants who performed an inspection received an aqua weed stick or a Clean, Drain, Dry water bottle and towel. This educational tool was also used at meetings and to train new/existing resort inspectors.

During the 2024 inspection season the watercraft inspectors provided educational materials and promotional swag to teach the public about AIS and provide resources for them to prevent the spread of AIS. New this year, we have developed a business card with QR codes on both sides. One side will bring the user to the MNDNR’s decontamination location website, while the other side brings users to the MNDNR’s “Take the Pledge” to protect Minnesota’s waters from invasive species website. Also new, we created a towel with AIS prevention messaging to provide users with a tool to help clean & dry their watercraft and equipment. Throughout 2024, over 10,000 promotional and AIS prevention items were distributed.



Educational material examples: top left is an example of most materials available to distribute; right image is an example of the towel distributed; bottom two images are examples of the front/back of the business card available for distribution.

## B. Limitations & Future Goals

- Inspector recruitment and retention (staffing)

Fully staffing the watercraft inspection program continues to be a struggle. Of the 35 positions available, only 26 were able to be filled. With the incentive gift social marketing experiment utilized at the end of the 2022 season we were able to bump our return rate up to 76%. This was an increase of 24% from the 2022 inspector return rate. These incentives were tiered based on the number of years of inspecting. The goal is to get previous, experienced, inspectors to return year after year while adding to the team with new recruits. The District and staffing service will continue to explore advertising avenues in 2025 to hire a full team of watercraft inspectors.

- Decontamination Numbers

The number of decontaminations recorded in 2024 fell back below the 5-year average. We were only able to staff seven Level 2 inspectors for most of the season to perform decontamination with the five units directly managed by the District. Most units operated primarily during the busy weekends except for one unit on Lake Vermilion (Hoodoo Pt. N.) which operated seven days a week. Issues with two of Voyageurs National Parks three units did not allow for a unit to be operated at the Kabetogama public accesses. Voyageurs National Park staffed the unit at the Kettle Falls portage (numbers are not included). The Kettle Falls portage unit was also operated seven days a week. We tried to provide users with multiple decontamination opportunities throughout the District.

The marginal number of decontaminations recorded in 2024 is suspect and lower than what was actually performed. The AIS Coordinator tracked the usage of the units at each station along with service needed at each station (water/gas fill and filter cleanings). It was noticed in the beginning of the year that the unit at Ely Lake was being serviced but no decontamination records were recorded. This was ultimately the result of new staff members performing the service without recording them on tablets. Luckily this error was observed early in the season and additional training corrected the issue for the remainder of the season. Even while missing our decontamination goals, the inspectors did observe a large amount of boat ownership pride that translated into very clean boats.

Constant reminders throughout the season on the importance of decontaminations to the inspectors and tracking the use of each unit helped boost the programs overall numbers. In order to get back to an upward trend into the future similar tactics used in 2023 (where high numbers were reported) will be employed in 2025. In addition, a greater emphasis on decontaminating “clean” boats will be highlighted in the 2025 level 2 training as AIS may be hard to observed with the naked eye and decontaminations provide a higher level of security in preventing the spread of AIS. An increase in educational materials will also be provided, guiding boaters to MNDNR online decontamination units map. Decontamination units are a great tool to prevent the spread of AIS, and with proper education and tracking we hope to continue to see an increase in numbers for 2025.

- Private Access Recruitment

There is a desire for more private access businesses to conduct inspections at their access as the boat traffic at those accesses pose a significant risk of spreading AIS. Visitors from around Minnesota and other states utilize these locations as a “one-stop shop” to enjoy the high-quality lakes of northern St. Louis County. Without proper watercraft inspections, the risk of spreading AIS found in other locations to our lakes is increased.

Many businesses and private resorts understand the importance of AIS prevention but run into several roadblocks when it comes to performing and documenting watercraft inspections. Even with a \$9/inspection incentive many resorts do not have the staff to keep up with the necessary inspections. The staffing shortage also plays a factor in recording inspections, as some resorts conduct inspections but do not record them. Although it is most important that the watercraft are being inspected, recording the inspections is important to track the number of inspections being conducted to help target and optimize future AIS prevention activities.

In 2025, the District and its partners will continue to reach out and coordinate with resorts, campgrounds, and marinas to ensure private access owners understand the importance of these AIS prevention efforts. Additionally, we also plan on expanding the resort watercraft inspection program by providing interested parties with the tools and resources to conduct and track essential watercraft inspections. Finally, we hope to collaborate with other agencies around the region to develop educational materials that resorts can place in their cabins to remind and educate their guests about AIS.

- Education

Ongoing education is needed to reach watercraft users, lakeshore owners, tournament directors, resort owners, lake service providers, bait dealers, and classrooms. While there is increased awareness of AIS, there are still many gaps, misperceptions, and opinions to overcome.

The District would like to continue the education and outreach component of AIS by working with local partners, businesses, resorts, and area professionals to provide the public with information vital to preventing the spread of AIS. A focus on providing the public with necessary tools and information to conduct self-inspections will be a priority for the 2025 season. We will also continue to work on providing our watercraft inspectors with information beyond the MNDNR requirements to ensure they are knowledgeable about AIS related topics.

Additionally, we plan on continuing the watercraft inspection booth at various events and locations to find areas of optimal public engagement and increase users understanding and importance of AIS prevention efforts. New educational materials will also be developed to target and provide information and tools to lake users. Informational materials on resources available to watercraft users will also be developed with hopes of boosting the program resources available to the public.

- AIS Early Detection & Research

Identifying the locations of new/unidentified AIS infestations can help develop plans to educate and allocate resources in efforts to prevent AIS from spreading. Detecting early infestations in lakes allows us to get the word out to the public and could possibly contain the AIS to that lake. This information is also valuable to research and could help provide information to identify lakes that are at most risk from new AIS infestations.

In 2025 the District plans on continuing its early detection efforts to all lakes with public water accesses around northern St. Louis County. While continuing to conduct early detections on the highest risk lakes, we will continue to expand outreach to ensure all lakes are investigated over the next few years. We will continue with this cycle to identify new infestations as early as possible. The District also plans on continuing to deploy zebra mussel settling plates at high and moderate risk locations. We will also utilize our spiny waterflea detection equipment to investigate suspected infestations and monitor susceptible lakes. Finally, we will look to expand and recruit new observers for the lake sentry program. This will get lake property owners involved in early detection efforts and will provide us with more eyes on each lake's early AIS detection.

**C. Program Analysis**

- **Watercraft Inspections & Overall Inspector Efficiency**

Since the programs conception in 2016, watercraft inspectors continue to check for AIS and connect with thousands of people who utilize the pristine waters of northern St. Louis County. During the programs first few years inspection rates rose year after year while the efficiency of the inspectors remained around 1.5 inspections per hour. As the program became more established a continuous trend of inspecting 20-25,000 watercraft throughout a season with around 2 inspections per hour becoming the norm.

The efficiency of the inspectors was fairly constant over the first few seasons, but as the District got better at selecting high traffic sites and hours of the day the efficiency of the inspectors continued to rise. In 2021, the inspectors reached a max program efficiency of just over 3 inspections per hour. Ideally an efficiency rate of 2 inspections per hour at busy accesses and 1.5 inspections per hour at the slower access is the program goals. Every year there is a mix of busy and slower accesses included in the program so as we can maintain an efficiency above 1.5 inspections per hour the season is considered a success.

In 2024, there continues to be a nice mix of entering and exiting inspections. It is important to inspect the watercraft before entering to protect the lakes in our region, while it is equally important to check exiting boats to ensure we are not spreading AIS to other bodies of water. Exiting inspections also play an important role in early detection and make sure any new infestations are not being overlooked.

Being a popular fishing destination, it is not surprising to see that nearly three quarters of the inspections are conducted on fishing boats. Fishing boats, runabouts and pontoons make up over 86% of the inspections. A healthy fish population in the region will be important to maintain the high percentage of fishing boats. A significant number of people travel to great lengths to fish our pristine waters. Keeping the lake AIS free will help to sustain the lake’s ecosystem and preserve great fishing opportunities into the future.

**Figure 1**

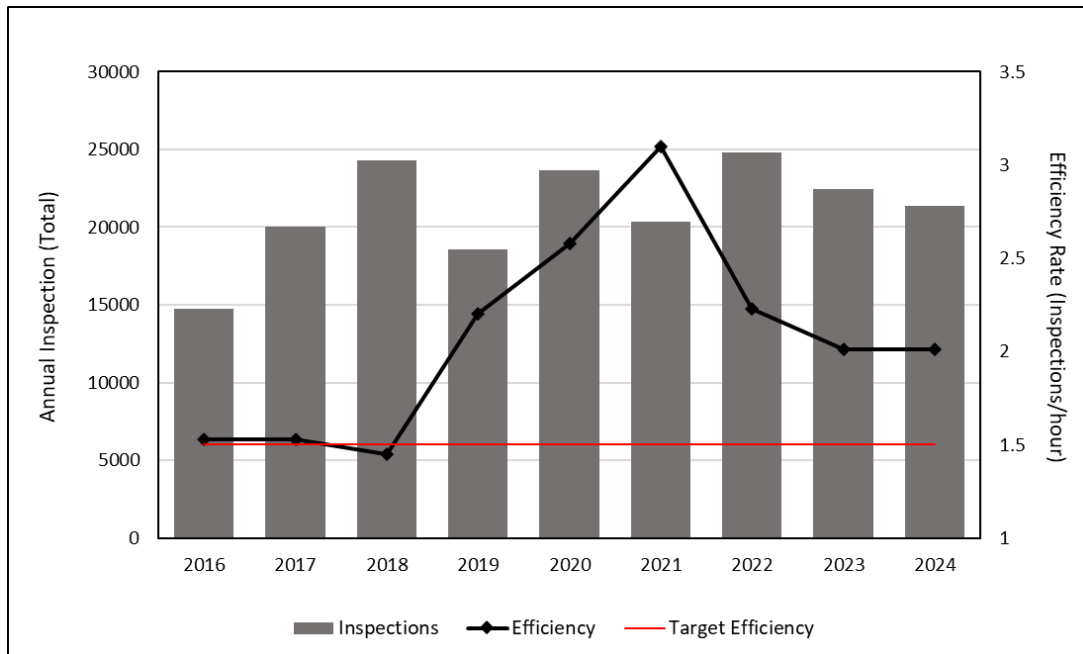


Figure 1: Historical watercraft inspection trends for AIS program. Along with efficiency trends throughout the program. The annual target efficiency goal is 1.5 inspections/hour. All inspections and hours recorded by NSLSWCD inspectors are represented in the figure.

**Figure 2**

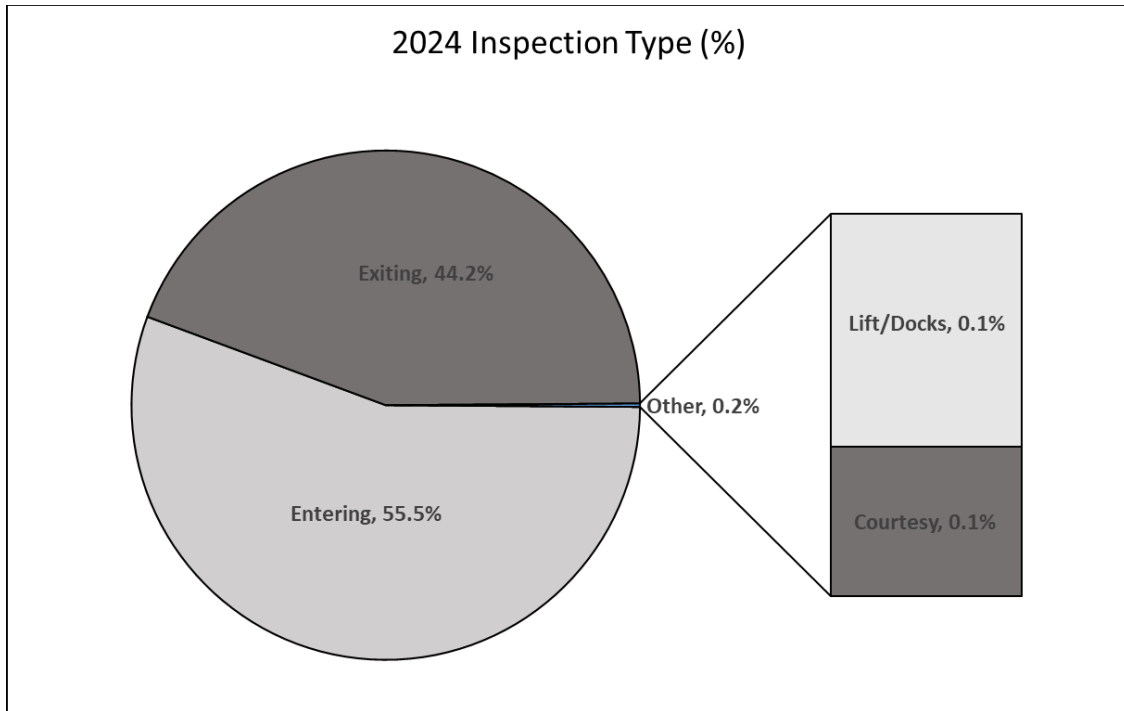


Figure 2: Graph showing the distribution of inspection types throughout the 2024 watercraft inspection season.

**Figure 3**

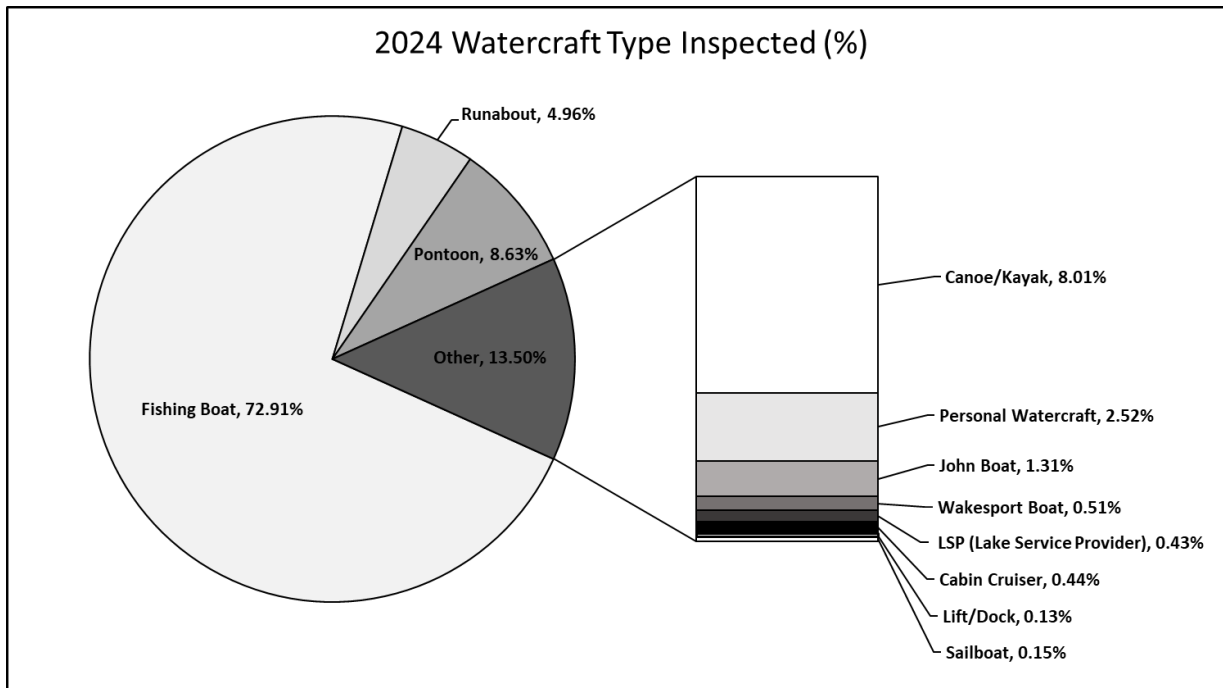


Figure 3: Distribution of watercraft types inspected during the 2024 watercraft inspection season.



- Decontaminations

Decontamination numbers dropped to just below the 5-year average (198) in 2024. We continued to fall short of the pre-season goal of 775 decontaminations in 2024. Not included in the season totals in Figure 4 are the decontaminations performed at the Kettle Falls portage. The Forest Service staff working the portage wash every boat utilizing the portage and do not keep track of how many boats go through each year. We continue to see low decontamination numbers, especially when the large portion that would benefit from a decontamination. We will continue to tweak the program to find ways to educate and entice watercraft users to partake in the decontamination program. We also plan on working with the inspection staff to find ways to engage the public in a way to promote and utilize the decontamination units more into 2025.

Even with two Voyageurs National Park units being down for service for the 2024 season we still were able to offer a significant amount of decontamination opportunities throughout the District. Staffing limitations in 2024 may have played a role in lower numbers as it was especially challenging to operate the Pelican and Ely lake units consistently throughout the entire year. We will continue to find ways to offer consistent decontamination opportunities and engage with watercraft users to increase the number of decontaminations performed throughout the years with hopes to one day meet/exceed program highs seen in 2017.

**Figure 4**

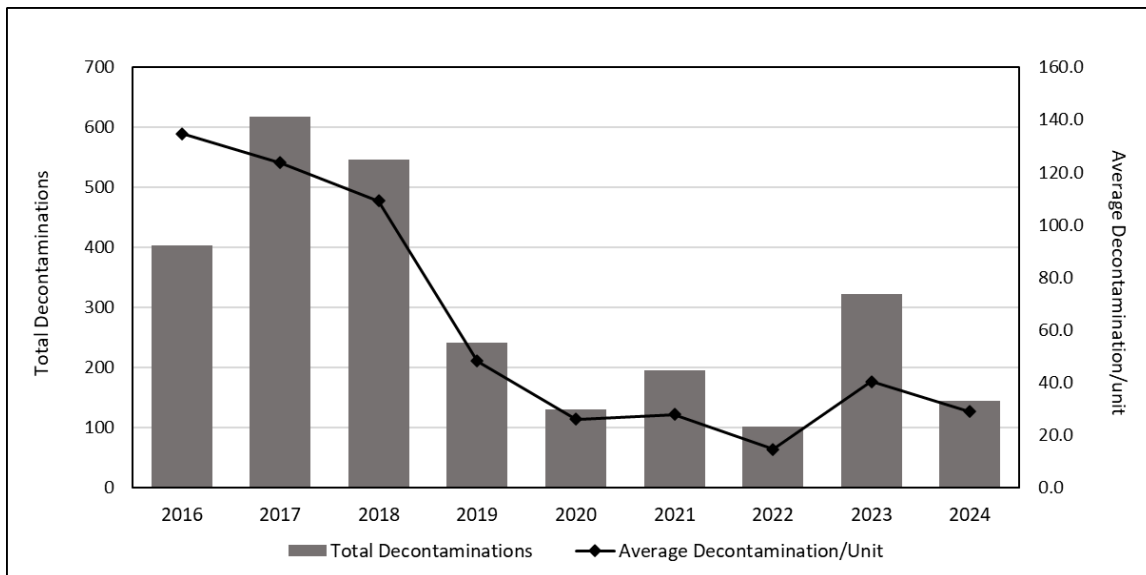


Figure 4: Historical decontamination trends for the Districts AIS program. Average decontaminations per unit is the total decontamination performed that year by the total number of units operated.

**TABLE 7**

Lake	2024	2023	2022	2021	2020
Shagawa	43 (90)	93	26	44	24
Burntside	13 (100)	130	42	3	48
Ely	30 (50)	39	2	6	8
Gilbert-Pit	0 (20)	0	1	2	1
Pelican	4 (80)	0	1	31	NA
Vermilion	46 (280)	41	22	100	49
Crane	9 (75)	20	8	1	NA
Kabetogama	0 (50)	0	0	0	NA
<b>Total:</b>	<b>145</b>	<b>323</b>	<b>102</b>	<b>187</b>	<b>130</b>

Table 7: Total decontaminations conducted at each lake over the last 5 years. Numbers in parentheses are season goals for the 2024 season.



- Private Access Inspections

The number of inspections completed by resorts in 2024 more than double that of 2023 (Table 8). This almost met the 5-year high and is likely a result of increasing the incentive rate from \$7 to \$9. The increase also incentivized a couple of resorts to re-commit to the program, increasing the total number of resorts participating in the program. The District continues to offer watercraft inspection services to a few of the busiest and remote locations on Lake Vermilion (when staffing is available). Other Vermilion resorts along with other lakes rely on their employees to perform and record the inspections. The introduction of survey program being available on personal cellular phones enhanced the success of the program starting in 2021. This continues to help boost the inspection numbers, but not all resorts are utilizing the inspection surveys. The resort inspection program relies on resort employees performing the inspection and uploading the results. There continues to be a couple of resorts who commit to the program but do not upload any inspections. We will continue to work with these resorts to identify the limiting factors and come to a resolution. The goals of the 2025 season are to reconnect with those resorts who had previously contributed to the program and to reach out to other potential resorts to participate in the program. We also hope to have additional resources for the resorts to offer to their guests, especially for those who do not participate in the inspection program.

**Figure 5**

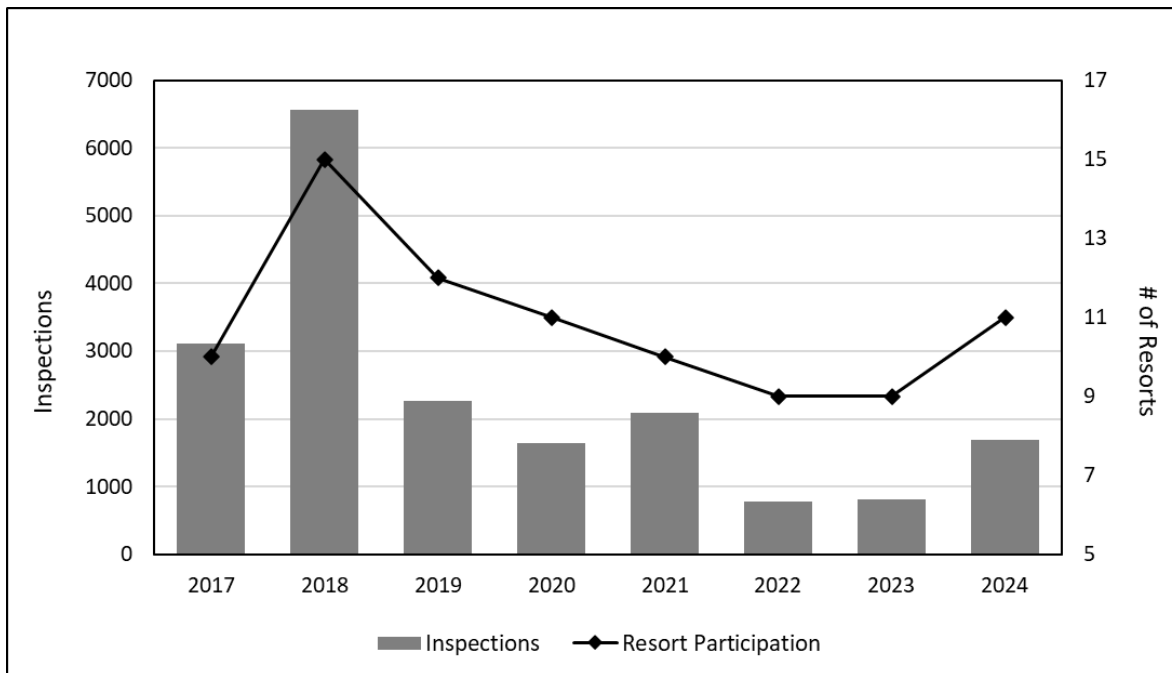


Figure 5: Historical trends of resort inspection program. Total inspections and number of resort participation for each year.

**TABLE 8**

Lake	2024	2023	2022	2021	2020
Vermilion	1509	705	733	1959	1512
Pelican	173	102	52	124	128
Birch	NA	NA	1	NA	NA
<b>Total:</b>	<b>1,682</b>	<b>807</b>	<b>786</b>	<b>2083</b>	<b>1640</b>

Table 8: Total resort inspections completed at each lake over the last 5 years.

- Risk Assessment

A risk assessment was conducted based on collected survey data at the public accesses. It shows the AIS risk of watercraft at various accesses (Table 9). Survey results from nine lakes assess and highlight the lakes with the greatest risk. Additionally, highlights from the 2023 analysis are also shown for comparison and to show if there are any significant changes.

For the lower risk categories (green shaded categories), the lakes with most watercraft users who had recent interactions with inspectors were found at Burntside, Shagawa, and Vermilion. Only three lakes showed inspector interaction less than 70% of users surveyed. When comparing all the entering inspection data, the percentage of people who spoke to an inspector this season jumped from 49% in May to 77% in June. This continued to rise throughout the year and sustained a 92% average from July-October. The highest percentage of “same last lake” and “same next lake” continues to be shared between Birch and Vermilion Lakes. It is likely that users are locals, or they are visiting the area and visiting these lakes multiple times during their trip. The other lakes ranged from 34-70% of same lake use making them more of an infrequent or one day adventure. Birch Lake continues to have high percentages in all three lower risk categories which is likely due to a significant amount of local use at this popular lake or visitors staying in the area are utilizing the lake multiple times.

The moderate risk category is in-between the lower and high-risk categories as they are out of the water past the five-day recommendation to adequately dry the watercraft and reduce AIS spread potential, but the watercraft are still traveling from other lakes which heightens the risk. All the surveys identify an average of 24.90% of watercraft users falling within this category, a decrease of 1.17% from 2023. Crane and Kabetogama rank amongst the highest in this category. Pelican Lake is also in the top three percentages in this category. All three of these lakes are locations with high visitor rates, and it is encouraging that people are allowing time for their watercraft to dry before launching into these systems.

Every lake, except for Ely and Vermilion Lakes were on the top end of risk at least once in the highest “increases” risk section. Three lakes (Crane, Pelican, and Shagawa) were at the top end of three high-risk categories. The most species found occurred on some of the more popular tourist lakes within the District. Only Vermilion recorded the presence AIS (zebra mussels) during the inspection, and the watercraft were immediately sent to the decontamination unit. Pelican Lake had a significantly higher percentage of species found compared to the other lakes. This is likely due to the fact that these boats returned from Pelican or came from higher vegetated access points around the region. There also continues to be a slight issue with drain plug law violations. Although it is a very small population of violators, it is surprising to note that over 83% of the 87 violators are Minnesota residents who should be aware of the drain plug laws. The larger, more popular, lakes have the highest number of “out of state” watercraft users with Burntside, Crane, Kabetogama, Pelican, Shagawa, and Vermilion all recording nearly or over 10% of users with plates other than Minnesota. Finally, lakes near Ely, Orr, and Crane Lake all had high percentages of watercraft entering from other lakes within 5 days of the last lake used. These are all popular lakes that people are likely lake hopping to or visiting as a tourist destination. With nearly all the lakes identified in Table 9 having at least one high risk in the highest “increase” risk section highlights the importance of continuing to conduct frequent watercraft inspections at all of these lakes.

Overall, the North St. Louis 2024 AIS Prevention Program was successful. Although the District continues to struggle with staffing and decontamination logistical issues, we were able to provide valuable AIS prevention actions to protect our many pristine lakes. The District looks forward to using the information detailed in this summary and applying it to 2025 planning as St. Louis County sees fit.

**TABLE 9**

2024 Public Access Inspections		Lowers Risk			Moderate Risk	Increases Risk				
Lake	Number of Inspections	Spoke to Inspectors <sup>3</sup>	Same Last Lake <sup>4</sup>	Same Next Lake <sup>5</sup>	Entering from other water after 5 days more <sup>6</sup>	Species Found (entering) <sup>7</sup>	Drain Plug Violations <sup>8</sup>	License from Out of State <sup>9</sup>	Entering from other water within 24 hours <sup>10</sup>	Entering from other water from within 5 days <sup>11</sup>
Bassett	17	Data set too small								
Bear Island	23	Data set too small								
Big Bear	0	Data set too small								
Birch	1090	83.71% ↑	72.07% ↓	77.72% ↑	17.98% ↑	0.41% ↑	1.91% ↑	6.50% ↓	4.63% ↓	8.72% ↑
Burntside	1251	96.64% ↑	56.70% ↓	52.47% ↓	17.66% ↓	0.00%	0.43% ↑	10.15% ↓	4.13% ↑	19.09% ↑
Cadotte	18	Data set too small								
Crane	1139	67.02% ↓	42.17% ↓	33.79% ↓	40.17% ↑	0.85% ↓	0.00% ↓	12.73% ↑	9.97% ↑	17.52% ↓
Eagles Nest #2	14	Data set too small								
Eagles Nest #3	27	Data set too small								
Ely	1202	82.11% ↑	69.86% ↑	69.69% ↑	24.06% ↑	0.43% ↓	0.58% ↓	5.32% ↓	2.46% ↓	5.42% ↓
Gilbert Pit	NA	Access Closed throughout 2024 season								
Indian	5	Data set too small								
Johnson	0	Data set too small								
Kabetogama	1087	68.08% ↓	54.37% ↑	56.15% ↑	39.62% ↑	0.00%	0.00%	14.72% ↓	2.4% ↓	5.83% ↓
One Pine	8	Data set too small								
Pelican	314	55.59% ↓	58.71% ↑	46.43% ↓	25.87% ↓	19.9% ↑	0.50% ↓	24.84% ↑	7.96% ↓	15.42% ↑
Perch	14	Data set too small								
Salo	3	Data set too small								
Shagawa	1433	88.62% ↑	62.01% ↓	66.56% ↓	18.04% ↓	0.38% ↑	0.76% ↑	12.77% ↑	1.27% ↓	19.70% ↑
Sturgeon Chain	826	87.99% ↑	70.45% ↓	65.38% ↓	22.68% ↑	0.37% ↑	2.97% ↑	4.60% ↑	2.23% ↓	5.39% ↑
Vermilion	12170	88.06% ↑	75.22% ↑	72.27% ↓	17.99% ↓	0.45% ↑	0.63% ↓	9.88% ↓	1.91% ↓	6.29% ↑
Whiteface Res	76	Data set too small								
Whitewater	15	Data set too small								
White Iron	15	Data set too small								
<b>For Reference (2023 Results)</b>	<b>2023 (top %)</b>	94.50%	75.07%	74.42%	38.64%	9.57%	4.79%	21.41%	15.00%	41.90%
	<b>1st</b>	Burntside	Sturgeon	Birch	Kabetogama	Pelican	Pelican	Pelican	Gilbert Pit	Crane
	<b>2nd</b>	Shagawa	Vermilion	Vermilion	Crane	Crane	Ely	Kabetogama	Pelican	Gilbert Pit
<b>3rd</b>	Birch	Birch	Shagawa	Gilbert Pit	Ely	Gilbert Pit	Shagawa	Birch	Pelican	

Table 9: AIS risk assessment for those lakes who recorded more than 100 inspections throughout the season. The percentage of each risk factor was calculated based on entering and/or exiting boater’s answers to survey questions. Columns labels in green are factors that would result in the lowest AIS spread risk to a lake. The yellow column poses a moderate AIS risk to the lake. Column labels in orange are factors that would pose the greatest AIS risk to a lake. The top three (3) highest percentages for each column are highlighted. Arrows next to percentages show if the percentage increased or decreased (respectively) from 2023, no arrows represent no change from last year.

<sup>3</sup>**Spoke to Inspector-** The percent of time a surveyed boater said they spoke with an inspector during the season.  
<sup>4</sup>**Same Last Lake-** The percent of time a surveyed boater said the last lake they were on is the same lake they are entering or last was storage (ex. last lake they exited was Vermilion, they are getting ready to enter Vermilion)  
<sup>5</sup>**Same Next Lake-** The percent of time a surveyed boater said the next lake they are going to enter in is the same lake they are exiting or to storage (ex. current lake they are exiting is Vermilion, the next lake they plan to enter in is Vermilion).  
<sup>6</sup>**Entering from other water after 5 days or more-** The percent of time an entering boaters stated their watercraft had been in another waterbody than that they are currently entering, and the boat has been out of the water for the DNR recommended 5 days to dry (current lake they are entering in is Pelican, and they were in Vermilion 6 days before).  
<sup>7</sup>**Species Found Entering-** The percent of time species were found during an entering inspection (plants, animals, water, mud etc.)  
<sup>8</sup>**Drain Plug Violation-** The percent of time an entering watercraft arrived at the access with the drain plug in place.  
<sup>9</sup>**License From Out of State-** The percent of time an inspector surveyed a boater with a towing vehicle license plate from out of state. In some cases, it may be the same vehicle but a different person.  
<sup>10</sup>**Entering from other water within 24 hours-** The percent of time an entering boater stated their watercraft had been in another waterbody than that they are currently entering, within the last 24 hours (ex. current lake they are entering in is Pelican, and they were in Vermilion within 24hrs before launching).  
<sup>11</sup>**Entering from other water within 5 days-** The percent of time an entering boater stated their watercraft had been in another waterbody than that they are currently entering, within the last 5 days or it’s unknown when the watercraft was in a waterbody last (ex. current lake they are entering in is Pelican, and they were in Vermilion 3 days ago).