

River Access Observations for Aquatic Invasive Species Prevention Behaviors

Hennepin County
March 2023

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Executive Summary

This project is part of an effort to identify and manage pathways for the introduction and spread of invasive species into and within Hennepin County. The purpose of this project is to conduct observation research to determine the extent of aquatic invasive species (AIS) prevention behavior of those using public river accesses in Hennepin County, and to better understand if AIS prevention behavior differs between lake and river accesses.

The observations summarized in this report were made under-cover during times when access inspectors were not present. The accesses observed have a variety of AIS signage, markings, and equipment.

Observations were conducted at five public river accesses within Hennepin County, including the Dayton, Champlin, Brooklyn Park, and Minneapolis accesses along the Mississippi River, and the Bloomington access on the Minnesota River. Due to low access-use, the Minneapolis access was removed from the schedule rotation midway through the season.

A total of 170 non-commercial boats were observed during the 75 hours (26 visits) of surveys. An additional 22 commercial boats (boats rented by private companies) were observed entering the Mississippi River access at Brooklyn Park. This report excludes commercial boats from the data and observations were not summarized or analyzed.

To quantify AIS prevention behavior, observers specifically watched for river access users to properly insert or remove the boat drain plug when arriving to or leaving from the boat accesses, and whether vegetation was properly cleaned from the boat and/or trailer upon arriving to or leaving from the boat accesses.

The overall violation rate for all five accesses is 24.7% (42 observations). The Minnesota River access in Bloomington had the highest violation rate of 28.6%, followed by the Mississippi River accesses in Champlin (27.9%), Brooklyn Park (18.2%), and Dayton (13.3%). Only one boat was observed at the Minneapolis access, and a violation was observed (100%).

The most observed violation was entering the access with the plug in the boat (26 out of 42), followed by leaving from the access with plugs in (13 out of 42). Four vegetation violations were observed: three boats/trailers entering an access and one boat/trailer leaving an access.

The overall violation rate observed at the river accesses is higher (24.7%) than the lake accesses observed between 2017 and 2019 (16.6%). Violation rates per river access ranged from 13.3% - 28.6% while violation rates per lake access ranged from 11.2% - 27.8%. Boats entering accesses with plugs in were the most common violation for both river and lake accesses. Vegetation violations entering and leaving lake accesses were more common than river accesses which represented a small portion of the violations observed at the river accesses. Fishing boats, ski boats, and personal watercrafts were more commonly observed at both river and lake accesses than any other types of boats. In addition, more kayaks and canoes were observed, in general, at river accesses than at lake accesses while more wake boats were observed at the lake accesses. Fishing boats had the highest number of violations for both river and lake access users.

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Introduction and Purpose

This project is part of an effort to identify and manage pathways for the introduction and spread of invasive species into and within Hennepin County. The purpose of this project is to conduct observation research to determine the extent of aquatic invasive species (AIS) prevention behavior of those using public river accesses in Hennepin County. This project was funded by a grant from the Hennepin County Department of Environment and Energy.

Methods

Public lake accesses

Five public river accesses in Hennepin County were observed including four on the Mississippi River - Dayton, Champlin, Brooklyn Park, and Minneapolis; and one on the Minnesota River - Bloomington. Each access is equipped with a variety of signage types, decontamination equipment, and inspector presence.

Table 1. Access Operation Information

Access	AIS Inspections	Boat Use	AIS Signage & CD3 Equipment
Dayton (Crow-Mississippi Boat Launch)	None	1.8 boats/hr.	Minimal. No specific instruction for AIS prevention. No CD3 station.
Champlin (Point Park Boat Landing)	Some by private contractor	4.0 boats/hr.	Moderate. Specific instruction for AIS prevention. CD3 station available.
Brooklyn Park (Brooklyn Park River Park)	Some by private contractor	2.6 boats/hr.	Moderate. Specific instruction for AIS prevention. CD3 station available.
Minneapolis (Mississippi R. Boat Ramp)	None	0.1 boats/hr.	No AIS signs present. No CD3 station.
Bloomington (Minnesota River Bottoms)	None	2.9 boats/hr.	Minimal. AIS prevention directive statement. No CD3 station.

Mississippi River – Crow-Mississippi Boat Launch (Dayton)

The Crow-Mississippi Boat Launch, located on the Mississippi River in Dayton, is small and features minimal AIS prevention resources. There are signs posted at a single location near the ramp that remind users that it is unlawful to transport aquatic animals and water; however, no specific instruction on how to decontaminate your boat or reduce the risk of spreading AIS. There is no Clean, Drain, Dry, Dispose (CD3) station at this access. In addition, there are no traffic markings to control traffic flow. There is sand build-up on the ramp which may impact accessibility.



Signs posted at Mississippi River Access in Dayton



Mississippi River Access in Dayton – looking from river to exit



Mississippi River Access in Dayton – sand-covered ramp



Mississippi River Access in Dayton – looking toward ramp

Mississippi River – Point Park (Champlin)

The Point Park Boat Landing, located on the Mississippi River in Champlin, is the highest-used and most equipped river access of those observed in 2022. There are AIS signs with specific instructions for preventing the spread of AIS. There is a CD3 station with a stop bar to provide tools for access users to assist in proper AIS prevention behavior. In addition, there are traffic markings on the pavement, aiding traffic flow. The location of a shed on site may deter people from using the stop bar since it partly blocks the traffic path. A private contractor inspects this access.



Image of Stop Bar near CD3 station



Image of CD3 station



Mississippi River Access in Champlin – looking toward CD3 station



Mississippi River Access in Champlin – looking toward ramp



Mississippi River Access in Champlin – AIS signs

Mississippi River – 83rd Avenue North Boat Ramp/River Park (Brooklyn Park)

The 83rd Avenue North Boat Ramp, located on the Mississippi River at River Park in Brooklyn Park, is a moderately used boat access. There is a sign near the ramp with a brief AIS statement. There is a CD3 station present at this access (installed April 2022) to provide tools for access users to assist in proper AIS prevention behavior. There are no traffic markings.



Mississippi R. Access in Brooklyn Park – looking toward ramp



Image of sign near ramp



Mississippi R. Access in Brooklyn Park – looking toward CD3 station



Image of CD3 Station

Mississippi River – (Minneapolis)

The Mississippi River Boat Ramp, located in Minneapolis, is a low-use boat access. There is no AIS prevention signage, traffic markings, or decontamination equipment. This access was removed from the observation schedule mid-way through the summer due to low traffic volumes.



Mississippi River Access in Minneapolis - Image of sign



Mississippi River Access in Minneapolis – looking toward ramp



Mississippi River Access in Minneapolis – looking from ramp toward exit

Minnesota River – Minnesota River Bottoms (Bloomington)

The Minnesota River Bottoms Access, located on the Minnesota River in Bloomington, is a moderately used boat access. There is one AIS prevention sign posted at the exit. There is no CD3 station or traffic markings.



Minnesota R. Access in Bloomington
– view of ramp



Minnesota R. Access in Bloomington –
view of entire access parking from ramp



Image of AIS Sign

Observation plan

A plan for observing the accesses was developed in consultation with Hennepin County staff. A form was developed for tracking observations for each boat entering or leaving the access (Appendix A). Observations were made of AIS prevention actions, AIS regulations, boat type and access conditions. Sometimes this involved walking around to be able to see activities prior to backing into the access ramp, at the access ramp and leaving the access ramp.

Bolton & Menk staff conducted all observations under-cover during times when access inspectors were not present to avoid influencing the actions of those using the access. Staff were stationed close enough to observe actions, but far enough away to not seem obvious that observations were occurring. When possible, without breaking cover, staff approached boaters to provide information on AIS prevention after all observations were made and their responses were noted.

Observations were scheduled to occur during the summer of 2022 generally between 4:00 pm to 7:00 on weekdays and a variety of times on the weekends. Observations were spread out across June to August so that each access would be observed on a variety of weekdays and weekends throughout the summer. Observations of potential zebra mussels on boats were not possible due to the distance observers were from the boats. It was also difficult to observe bait management practices. These were not included in the observation data, although some notes on bait management were recorded.

Results and Discussion

Boat Observations

Bolton & Menk completed 26 access observations between June and August of 2022. A total of 170 non-commercial boats and 22 commercial boats were observed either entering or leaving the five accesses. Each observation period was scheduled for three hours; however, if the weather turned bad or there was no activity, the time was shortened, and additional visits were made. The five accesses were scheduled in a pattern of rotation to evenly disperse the observations throughout the summer. Midway through the season, the Minneapolis access was removed from the schedule due to low boat traffic. The remaining hours dedicated to the Minneapolis access were divided up between the other four accesses.

Table 2. Total Hours and Boats per Access

Access	# visits	# hours	# boats	Average Boats/visit	Average Boats/hour
Dayton	6	17	30	5.0	1.8
Champlin	6	17	68	11.3	4.0
Brooklyn Park	6	17	44	7.3	2.6
Minneapolis	3	7	1	<1	<1
Bloomington	5	17	49	9.8	2.9
TOTAL	26	75	192	7.4	2.6

The number of total boats observed varied between sites, ranging from one boat at the Mississippi River access in Minneapolis to 68 boats at the access in Champlin Park. The access in Dayton had 30 observations, Brooklyn Park had 44 (including 22 commercial), and Bloomington had 49. Champlin was the busiest access with an average of 11 boats per visit followed closely by Bloomington with an average of 10 boats per visit. Dayton and Brooklyn Park averaged 5 and 7 boats per visit, respectively, while Minneapolis averaged <1 boat per visit.

Boat Types

Each boat arriving to or leaving an access was characterized by the type of watercraft. Identifying boat type helps provide an indication of the potential for spread of AIS. For example, wake boats carry ballast tanks that are difficult to clean and are a potential source of AIS when the boat is used in another lake. Non-motorized boats including canoes, kayaks and paddle boards are likely a lower risk for the spread of AIS. Boats labeled as 'other' included watercrafts such as inflatable rafts or other boats that didn't fit into a category.

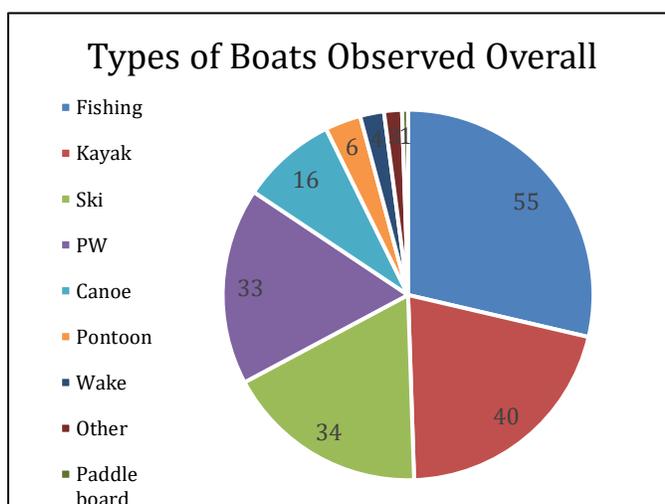


Figure 1. Types of Boats Observed Overall

Table 3. Types of Boat per Access

Access	Fishing	Kayak	Ski	PW	Canoe	Pontoon	Wake	Other	Paddle board	TOTAL
Dayton	9	9	0	0	10	1	0	1	0	30
Champlin	11	2	25	20	0	5	4	1	0	68
Brooklyn Park	8	26	2	3	4	0	0	0	1	44
Minneapolis	1	0	0	0	0	0	0	0	0	1
Bloomington	26	3	7	10	2	0	0	1	0	49
TOTAL	55	40	34	33	16	6	4	3	1	192

The most common type of boat observed at each access varied between sites. Overall, fishing boats were the most observed boat type, followed by kayaks, ski boats, and personal watercraft (PW). Fishing boats were the most common observed type of boat at the Bloomington access, as well; however, canoes were the most common at the Dayton access (followed closely by fishing boats and kayaks), and ski boats were the most common at the Champlin access (followed closely by PW). Kayaks were the most common at the Brooklyn Park access; however, 20 of these observed kayaks were rented from commercial outfitters.

Commercial vs non-commercial

Most boats observed at access points were non-commercial. A total of 22 commercial boats (boats rented by a private company) were observed out of the 192 boats total. Commercial boats were only observed at the Brooklyn Park access, and they were all kayaks (20) and canoes (2). Based on previous lake access observations, commercial outfitters behave differently when entering and leaving accesses. They tend to just load and unload without a lot of AIS prevention behavior since they are often going back and forth to the same site. Commercial boats were not included in the violation calculations discussed below.

Access	# Commercial Boats	# Non-commercial boats	Total Boats Observed
Dayton	0	30	30
Champlin	0	68	68
Brooklyn Park	22	22	44
Minneapolis	0	1	1
Bloomington	0	49	49
TOTAL	22	170	192

Observed Violations

Potential violations of AIS regulations were observed at all five accesses. It was assumed there was no violation if the field sheet was marked unsure. The main actions observed as potential violations were:

1. Entering with vegetation on boat or trailer
2. Entering with plug in boat
3. Leaving with plug in boat
4. Leaving with vegetation on boat or trailer

Violations discussed in this section only represent non-commercial boats observed at the accesses. In addition, plug violations by non-motorized boats, like kayaks and canoes, were also filtered from this data and will be discussed later in the report.

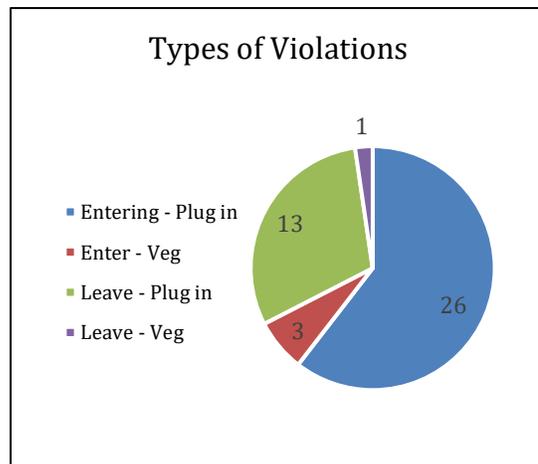


Figure 2. Types of Violations Observed

Of the 170 non-commercial boats observed, 42 of them were observed committing violations while entering or leaving the boat accesses. The overall violation rate for non-commercial boats for all river accesses observed in 2022 is 24.7%.

The access in Bloomington had the highest violation rate of 28.6%; however, the access in Champlin, which is also the only access that is inspected by a private contractor, has the most violations (19) with a violation rate of 27.9%. The access in Brooklyn Park had 4 violations (18.2%) and the access in Dayton had 4 violations (13.3%). The single boat observed at the Minneapolis access had a plug violation upon entering the access (100%).

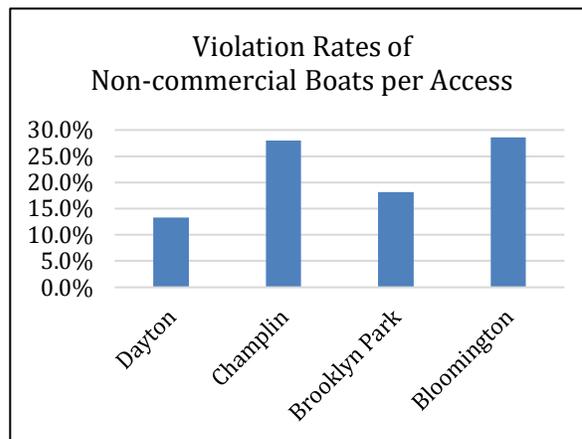


Figure 3. Violation Rates of Non-commercial Boats

One ski boat incurred both a plug and vegetation violation when observed exiting the Minnesota River access in Bloomington. Overall, 43 violations were observed on 42 boats. The most common violation was entering with plugs in (26), followed by leaving with plugs in (13). Four vegetation violations were observed, three boats/trailers entering an access and one boat/trailer leaving an access.

Table 4. Violation Types Observed per Access

Access	Entering access – Plug Violation	Entering access – Veg Violation	Leaving access – Plug Violation	Leaving access – Veg Violation	TOTAL Violations:	TOTAL Boats w/ Violations:	Violation Rate of boats per access:
Dayton	2	0	2	0	4	4	13.3%
Champlin	14	3	2	0	19	19	27.9%
Brooklyn Park	2	0	2	0	4	4	18.2%
Minneapolis	1	0	0	0	1	1	100%
Bloomington	7	0	7	1	15	14	28.6%
Total Violations	26	3	13	1	43	42	24.7%

Violations per type of boat

All Boats Observed

Fishing boats had the highest number of violations (19), followed by personal watercrafts (16), ski boats (4), wake boats (2), and pontoon boats (1). Most violations were plug violations. The four vegetation violations observed throughout the season were from one ski boat, one pontoon boat, and two personal watercraft on the same trailer. In addition, kayakers had 17 plug violations which are not included in the overall violation rates for this report.

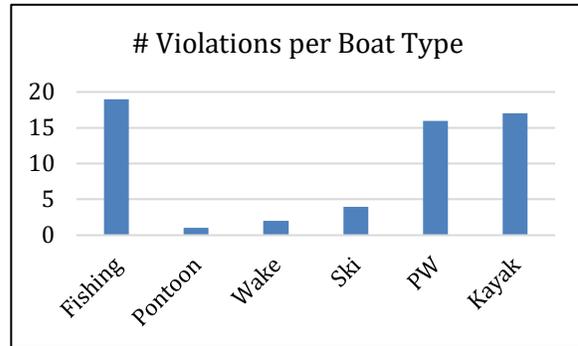


Figure 4. Number of Violations per Boat Type

Non-motorized Boats Observed

Non-motorized boats, like kayaks and canoes, are categorized differently in this report because it is assumed that these types of boats are often flipped over to drain and are carried on vehicles and stored in sideways or up-side-down positions where water will drain from the boats regardless of opening the plug. Also, air is freely flowing into interior of these styles of boats. However, it is concerning that kayak users were rarely observed emptying water from their boats before tying them to the vehicles. Seventeen kayakers were observed entering (11) or leaving (6) the boat accesses with plugs in. If these are considered in the violations, it impacts the overall violation rates discussed above. Including kayak plug violations, a total of 59 boats were observed with violations (34.7%). Violation rates per access with kayak plug violations considered are 43.3% (13) at the access in Dayton, 40.9% (9) at the access in Brooklyn Park, 30.6% (15) at the access in Bloomington, and 30.9% (21) at the access in Champlin.

Table 5. Comparison of Number of Violation Rates with and without Kayak Plug Violations

Access	# non-comm boats	# Boats with Violations including Kayak Violations	# Boats with Violations w/o Kayak Violations	Violation Rate including Kayak Violations	Violation Rates w/o Kayak Violations
Dayton	30	13	4	43.3%	13.3%
Champlin	68	21	19	30.9%	27.9%
Brooklyn Park	22	9	4	40.9%	18.2%
Minneapolis	1	1	1	100.0%	100.0%
Bloomington	49	15	14	30.6%	28.6%
TOTAL:	170	59	42	34.7%	24.7%

Observations included assessing how thoroughly each boat owner or user inspected their boat and trailer when leaving the access. The options were: “thorough- bent over to search,” “quick look,” “didn’t look,” and “unsure”. Minneapolis was excluded from this analysis because no boats were recorded leaving the access.

Boater AIS Self-inspections

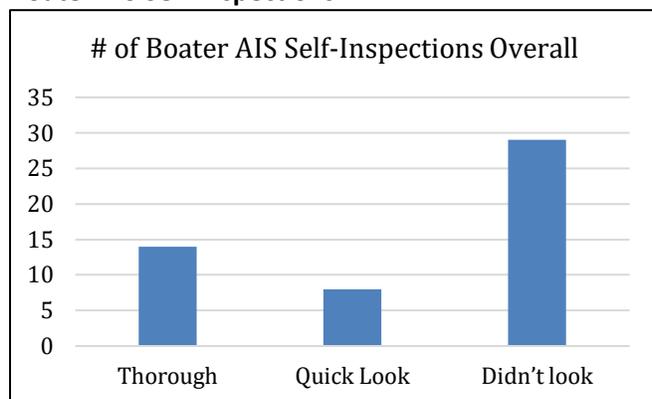


Figure 6. Number of AIS Self-Inspections Overall

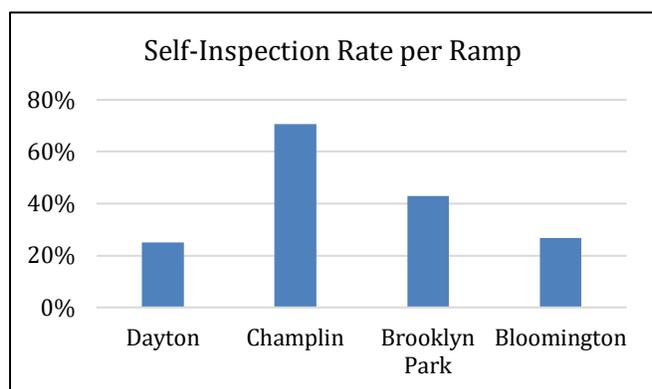


Figure 5. Self-Inspection Rate per Ramp When Leaving

Fifty-one observations were conducted of boats leaving the accesses. Most often, access users did not inspect their boats for vegetation or other potential AIS before leaving the access. Overall, 43% of boats observed leaving the accesses either were thoroughly or quickly inspected. Self-inspection rates were highest at the Mississippi River access in Champlin (70.6%) where 12 out of 17 access users either thoroughly inspected or quickly looked over their boat before leaving the access. The Mississippi River access in Dayton had the least compliance where 3 out of 12 access users inspected their boats before leaving the access (25%). Brooklyn Park and Bloomington accesses were in the middle with inspection rates of 43% and 27%, respectively.

Table 6. Number of Self-Inspections per Access

Access	Thorough	Quick Look	Didn't look	Total
Dayton	3	0	9	12
Champlin	7	5	5	17
Brooklyn Park	3	0	4	7
Bloomington	1	3	11	15
Total:	14	8	29	51

Impacts of signs on boater behavior

Only two of the five accesses (Mississippi River accesses in Champlin and Brooklyn Park) had signs posted with specific language instructing access users how to prevent the spread of AIS. It was difficult to tell if people were reading the signs. Most access users did not appear to regard the posted signs. There were three access users that walked up to the signs to read them closely. Despite AIS language on posted signs, violation rates for motorized boats at Champlin were higher than the average rate for overall violations at all accesses. Most violations were plug violations in which plugs were already in the boat upon arrival to the access. However, the signage may have improved the inspection rate since it was much higher than at the other accesses. AIS Signs are posted more to get the attention of those leaving the access. Excluding kayak plug violations, the access in Dayton which has minimal signage, had the lowest violation rates. However, half of the boats (excluding kayaks) were canoes which do not have

plugs. More education and signage may be essential in the future to stress the importance and purpose of AIS prevention behavior.

Traffic Flow

The only access that had any form of traffic markings was Champlin. There were arrows guiding boaters on the way in and out of the ramp. The traffic arrows marked a practical path in and out of the access in Champlin. Access users were not observed entering or leaving the access in Champlin alternative to the traffic arrows. While the other accesses didn't have traffic markings, the flow of boaters arriving and exiting the ramp seemed consistent.

CD3 Station Use

The Mississippi River accesses in Champlin and Brooklyn Park both had Clean Drain Dry Dispose (CD3) solar powered stations. Of the seven boats observed exiting the access in Brooklyn Park, one parked at the CD3 station, but did not use it. The other six boats parked elsewhere and did not use the CD3 station. Of the 17 boats observed exiting the access in Champlin, five used the CD3 station and four parked at the CD3 station, but did not use it. The other eight boats parked elsewhere and did not use the CD3 station. Despite the high violation rate at the access in Champlin (27.9%), the majority of violations occurred upon entering the access in Champlin. Two out of 17 boats leaving the Mississippi River access in Champlin had plug violations. Two out of 7 boats leaving the Mississippi River access in Brooklyn Park had plug violations. Neither access had vegetation violations when leaving the accesses. More education and signage may be essential in the future to stress the importance and purpose of the CD3 station.

Access Condition

Observations of the "weediness" of the access ramp were noted at the beginning of each observation visit, as this would influence the chance of leaving with aquatic plants on the boat/trailer. All river access during the entirety of the summer were marked 'non-weedy'.

Education on AIS

When the accesses were not busy and the cover of the observer was not at risk, information and education on AIS was given to access users and their responses were recorded. Each of the groups were asked if they wanted to learn more about AIS and were offered handouts. In total, 11 groups of boaters were approached either leaving or arriving at the access after initial observations were made. Of the 11 boats approached, 6 had a positive reaction and were interested in learning more while 5 declined to hear about AIS prevention. Typically, those that were interested in listening were those that did not have any violations. Those that declined to learn more about AIS seemed uncomfortable and did not wish to speak further. It also appeared that larger groups and families with kids more commonly listened to information on AIS. With such a small sample size, further studies should be performed to potentially determine if presence of AIS prevention resources changes how boaters respond to further education.

Comparison of AIS violations at Lakes and Rivers

The overall violation rate observed at the river accesses is higher (24.7%) than the lake accesses (16.6%). Violation rates per river access ranged from 13.3% - 28.6% while violation rates per lake access ranged from 11.2% - 27.8%. Boats entering accesses with plugs in were the most common violation for both river and lake accesses. Vegetation violations on boats entering and leaving lake accesses were more common than river accesses, which represented a small portion of the violations observed at the river accesses. This is not surprising since the accesses were marked as "non-weedy" compared to many of

the lake accesses that can be very weedy at times. Fishing boats, ski boats, and personal watercrafts were more commonly observed at both river and lake accesses than any other types of boats. In addition, more kayaks and canoes were observed, in general, at river accesses than at lake accesses while more wake boats were observed at the lake accesses. Fishing boats had the highest number of violations for both river and lake access users.

Table 7. Data Comparisons Between River Accesses and Lake Accesses

	# Boats Observed	# Violations	# Boats w/ Violations	Violation Rate	Enter – plug in	Enter – veg	Leave – plug in	Leave – veg
River Access	170	43	42	24.7%	26	3	13	1
Lake Access	1156	210	192	16.6%	92	41	38	39

Table 8. Comparisons of Types of Boats Observed at River Accesses and Lake Accesses

	River Access			Lake Access		
	# Boats Observed	# Violations	Violation rate	# Boats Observed	# Violations	Violation rate
Fishing	55	19	34.5%	417	93	22.3%
Ski	34	5	14.7%	319	76	23.8%
PW	33	16	48.5%	153	10	6.5%
Kayak	20	0	0.0%	48	0	0.0%
Canoe	14	0	0.0%	9	0	0.0%
Pontoon	6	1	16.7%	39	2	5.1%
Wake	4	2	50.0%	95	23	24.2%
Other	3	0	0.0%	41	5	12.2%
Paddle boards	1	0	0.0%	35	1	2.8%
TOTAL:	170	43		1156	210	

Discussion and Recommendations

More awareness and instruction for AIS prevention behavior would benefit access users. More obvious signage and clear instruction may increase AIS prevention behavior.

More awareness and instruction for using the CD3 stations may be necessary to increase use. Boat access users are either not aware of the function of CD3 stations or are apprehensive to use them, as it was noted that some boats leaving accesses would park near them but not use them.

The commercial company staff supplying kayaks observed at Brooklyn Park were overheard discussing boater safety with the users and provided information and resources on how to be a safe boater. AIS information was not discussed; however, this may be an opportunity to integrate AIS prevention into regular discussion as a greater discussion of boat access use.

Most violations were plug violations in which plugs were already in the boat upon arrival to river accesses. In this situation, signs and CD3 stations will only bring awareness to access users after leaving the access and only remind returning users to remove plug from boats during transport. A simple sign at

the entrance reminding boaters to remove their plug and drain out any water before entering the launch area may be helpful in reducing these violations. It would be important that the sign be far enough away from the launch so that any water does not drain to the lake. An education campaign focused on the message of “keep plugs out except when in the water” may help reduce violations.

In general, access users with non-motorized boats, like kayaks and canoes, behave differently than operators of motorized boats and use the access differently. Kayaks and canoes are usually prepared or loaded in a parking space rather than in line of the ramp and are often carried on top or inside vehicles. This may exclude non-motorized boat access users from observing signs posted near the access ramp or CD3 stations. Though canoes and kayaks are assumed to be less likely to spread AIS, it is concerning that very rarely were they observed having the water drained from their inside cavity. Strategically, placing AIS signs in areas that draw attention to non-motorized boat users may be beneficial, especially at river accesses as this data suggests that canoes and kayaks are more frequently used on rivers than lakes.

Most of the accesses had no form of traffic markings. In general people followed a common trend on where to park and prep with a few exceptions of people parking in the ramp or in a boat parking spot. It’s possible that the lack of traffic markings make boaters less likely to preform adequate AIS prevention behaviors as there was nothing to remind them to stop when arriving to or exiting the access.

Bait observations were difficult to make and thus the results are unclear. Observations were conducted at a far enough distance away that it was difficult to observe if there were any bait containers in the boats. We rarely saw anyone with a fishing boat dispose of anything. If something was disposed of it was unclear if it was general trash or bait. Most often we saw anglers move bait containers from the boat to the car. Some of this may have been in violation of AIS laws.

It would also be difficult to observe if zebra mussels were on any boats or trailers entering or leaving the access so this was not included in the observations.

In general, the access ramps were weed-free in the rivers which is different from access ramps in lakes previously observed. As a result, few vegetation violations were reported. Preventing weed build-up at accesses may be helpful in reducing vegetation violations.

Violation rates were higher at river accesses and fewer boats were observed receiving self-inspections at river accesses compared to lake accesses. This may indicate that education and outreach are different for these access communities.

Appendix A. Field Sheet

Hennepin County River Access Inspections

Access Name: _____

Page ___ of ___

Date: _____

Staff: _____

Start time: _____

End time: _____

Weedy (Y/N)? _____

Weather _____

Temp _____

Notes:

Boat #							
Time (begin prepping/cleaning boat)							
Time (end prepping/cleaning boat)							
Boat type							
Commercial (Y/N)							
Number of people							
ARRIVING TO ACCESS							
Influenced by traffic markings (Y/N/NA)							
Boat plugs out or open (Y/N/NA)							
Plants on boat/trailer (Y/N)							
Read signage (1-4)							
Stop bar busy (Y/N/NA)							
Comments							
LEAVING ACCESS							
Influenced by traffic markings (Y/N/NA)							
Remove/open drain plugs (Y/N/NA)							
Inspect boat & trailer/remove plants (1-4)							
Properly dealt with bait/water (Y/N)							
Trim engine (outboard) (Y/N)							
PW- start engine to drain water (Y/N)							
Leaving with vegetation on boat/trailer (0-2)							
Violation (Y/N)							
Comments							

Boat types:

Fishing (F), Pontoon (P), Wakeboat (W),
Ski/cruiser (S), Personal watercraft (PW),
Kayak (K), Canoe (C), Paddleboard (B)
Sailboat (SB), Other (O)

Read signs/inspection Ranking

1- Thorough- bent over to search
2- Looked- quick look
3- Didn't look
4- unsure

Leaving with veg on trailer/boat

0- No veg
1- Little/hidden/difficult to reach
2- Obvious

Weather:

Sunny (S), Partly Cloudy (PC)
Cloudy (C), Rain (R), Windy (W)

Fill all cells:

U = unsure
NA = not applicable