Carver County
Water Management Organization

Aquatic Invasive Species Watercraft Inspection Report

2020

Planning & Water Management

3/26/2020

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2020 Inspection Program Summary

General Inspection Information

Carver County's Aquatic Invasive Species (AIS) watercraft inspection program is administered by the Planning and Water Management Department. The county partners with the Minnesota Department of Natural Resources (MN DNR), Minnehaha Creek Watershed District (MCWD), Riley Purgatory Bluff Creek Watershed District (RPBCWD), the City of Chanhassen, and multiple lake associations to provide watercraft inspections at 7 lakes. Two of these lakes are within the Carver County Water Management Organization (CCWMO) boundaries, which include Lake Waconia and Bavaria. Two lakes are in the Minnehaha Creek Watershed District (MCWD), including Lake Minnewashta and Pierson, and three lakes are in the City of Chanhassen as well as the RPBCWD; Lotus, Ann, and Susan.

Table 1: 2020 AIS Program Totals

Lake Name	Number of Inspections
Ann	323
Bavaria	1,861
Lotus	2,529
Minnewashta	6,450
Pierson	2,263
Susan	110
Waconia	7798
Total	21334

The 2020 inspection program began on May 9th and concluded between September 7th and November 15rd depending on the lake. According to official MN DNR inspection data, 21,334 watercraft inspections took place in Carver County during this time (Table 1). Overall, there were 11,458 entering inspections, 9,841 exiting inspections, 2 courtesy inspections, and 42 "lift" or Lake Service Provider inspections. Lake Waconia accounted for the largest portion of inspections at 37% followed by Lake Minnewashta and Lotus Lake at 30% and 12% respectively (Figure 1).

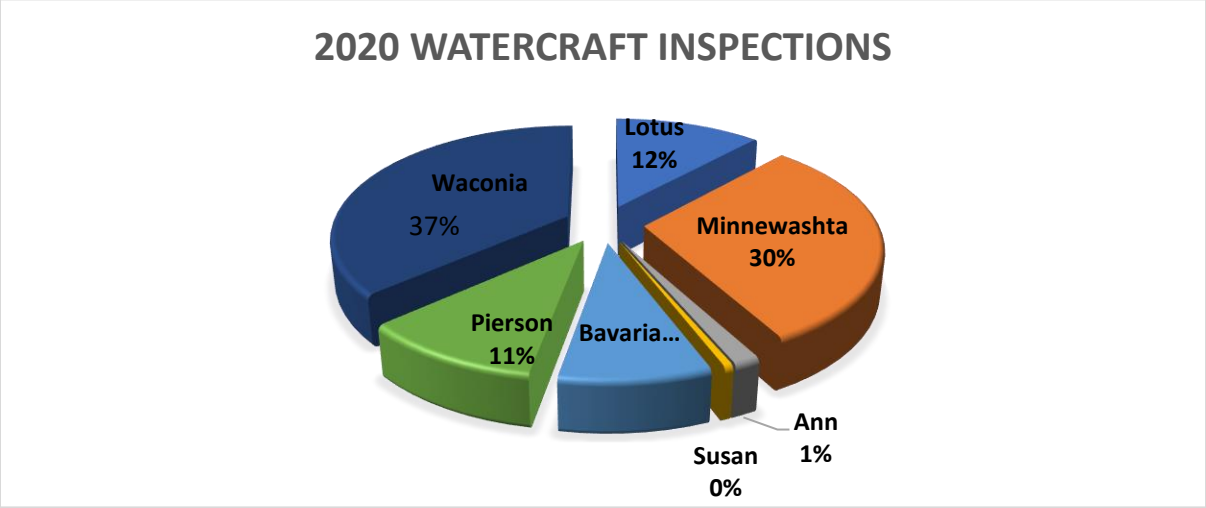


Figure 1: The above chart shows the percent of inspections conducted at each lake during the 2020 inspection season

Inspection data shows that 60% of inspections were conducted on fishing boats (Figure 2). The second most common type of watercraft was runabouts (20%). The remaining common watercraft types were wakeboard boats (6%), pontoons (4%), canoes/kayaks (3%), and personal watercrafts (5%).

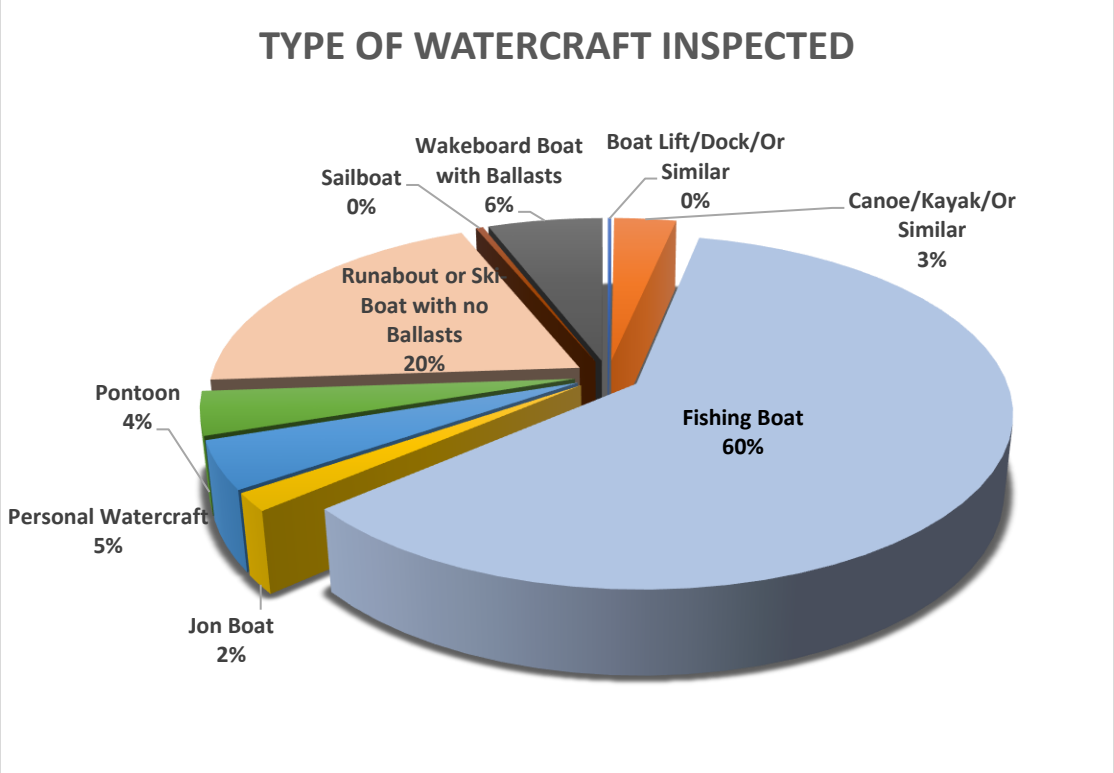


Figure 2: The above chart shows the percent of inspections conducted on each watercraft type throughout the 2020 inspection season.

Throughout the 2020 inspection season, roughly 58% of incoming boaters reported that the watercraft was out of water for the recommended 5 days or more (Figure 3). However, a total of 40% of incoming boaters reported that the watercraft had been out of water for less than that. Thirty two percent reported 1-4 days while 8% reported less than 24 hours.

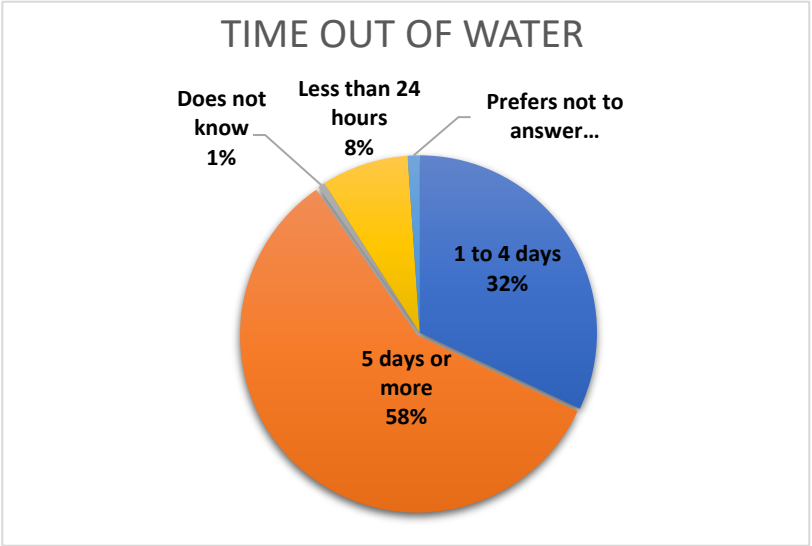


Figure 3: The above chart shows the reported amount of time out of water by incoming boaters throughout the 2020 inspection season.

Most watercrafts were trailered by vehicles from Minnesota (98.5% or 21,027). The remaining 1.5% (or 316) of watercrafts came from 34 different states. The state most reported was Wisconsin at a total of 72, followed by Florida (37) and South Dakota (26) (Figure 4). As AIS laws vary by state, it is important that out-of-state boaters know and adhere to Minnesota laws. This can be done through signage at accesses, through the inspector education, etc. It is important to note that when reporting the state from which the watercraft was from, inspectors look at the trailering vehicle license plate.

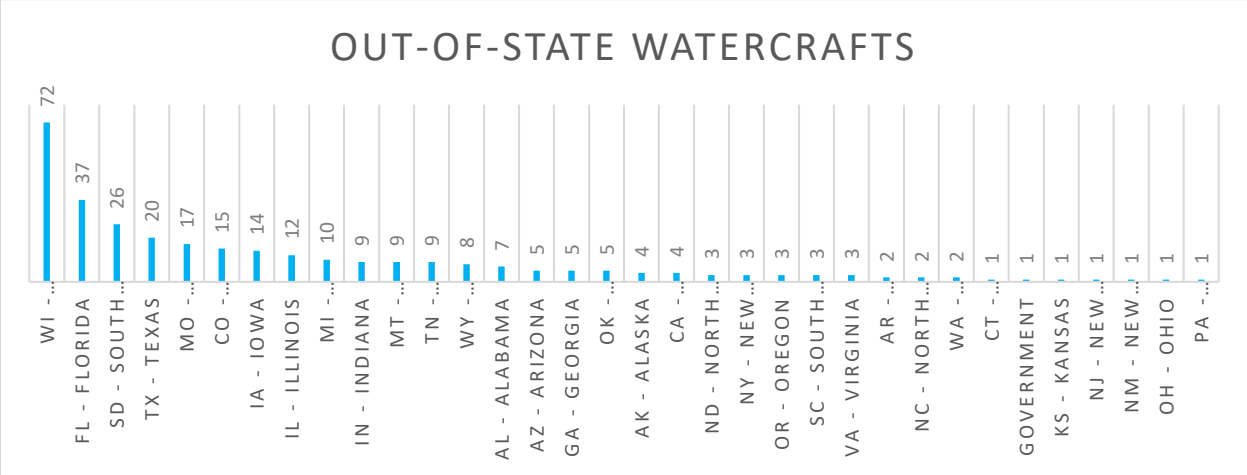


Figure 4: The above chart shows the number of watercrafts inspected by state.

According to the survey data (Figure 5), the busiest day of the week was Saturday with 4,848 inspections followed by Sunday with 4535 inspections. In fact, weekend inspections (total of 9,383) were less than a combined total of Monday through Friday inspections (11,960). This is a change from 2019 where more boaters were inspected on the weekend.

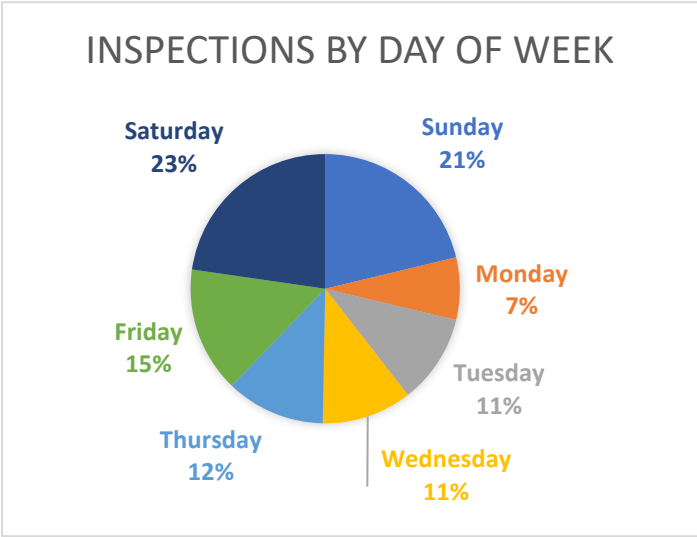


Figure 5: The above chart shows the percentage of inspections completed by the day of the week

Inspection Findings and Violations

There was a total of 475 inspections, or 4% of entering watercraft, that were in violation of MN AIS laws. Approximately 2,350 exit inspections resulted in at least one finding on or in the watercraft, equipment, or trailer. These findings are not considered violations as they were caught prior to the watercraft leaving the access. However, AIS found on exit inspections are important to know as they help determine what could be leaving a lake and entering a new lake if the inspection program was not in place.

Of the 475 entrance inspections where there were AIS upon arrival, plants (removable by hand) were the most common finding (307). The second most common violation was standing water in the watercraft (127) (Figure 6). There was a total of 13 zebra mussel violations, 2 of which required decontamination.

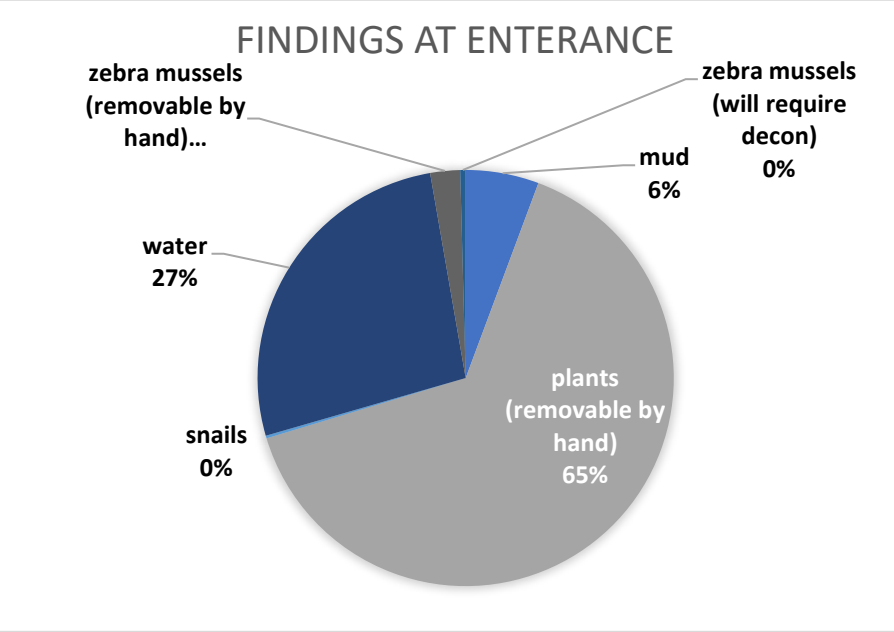


Figure 6: The above chart shows the variety of species found on incoming watercrafts, trailers, and water-related equipment. These findings are considered violations of MN AIS Laws.

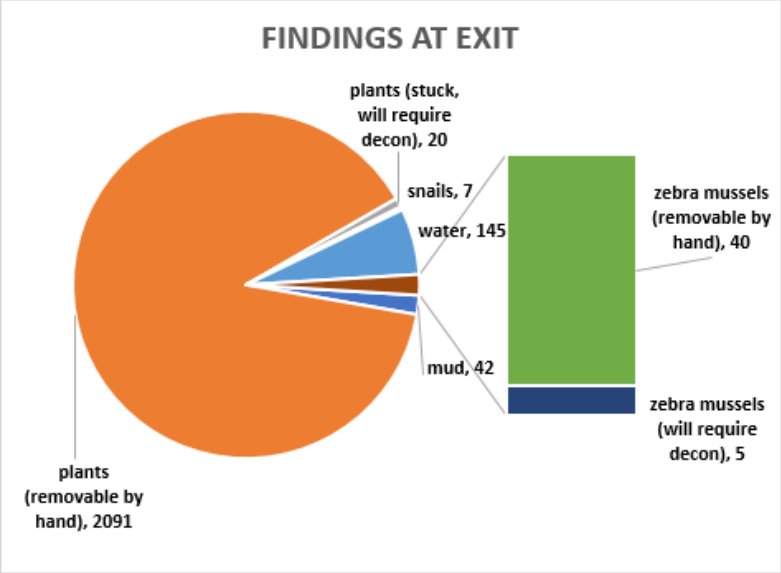


Figure 7: The above chart shows the distribution of species found during exit inspections only. NOTE: These are not counted as violations.

Of the 2,091 exiting inspections where a potential AIS violation was found, 89% were plants (removable by hand). The next most common type was standing water at 6% (Figure 7). There was a total of 45 zebra mussel findings during exit inspections, 5 of these findings required decontamination.

Carver County Water Management Organization Lakes

Lake Waconia

General Inspection Information

Traditionally, Lake Waconia has been the busiest lake for inspections in the program and in 2020 Lake Waconia reached a total of 7,798 (Table 2) compared to Lake Minnewashta with a total 6,450.

Table 2: Lake Waconia Inspection Types

Inspection Type	Count
Entering	4,105
Exiting	3,687
Lift	4
Courtesy	2
TOTAL	**7798**

Lake Waconia was scheduled for 1,922.5 hours from May 9th to October 31st but actual inspection hours were fewer due to a shortage of inspection staff. The most common type of watercraft inspected at Lake Waconia was fishing boats accounting for 70% of the total inspections. The second most common type of watercraft was runabouts/ski-boats at 16%. Pontoons and wakeboard boats followed at 5% (Figure 8).

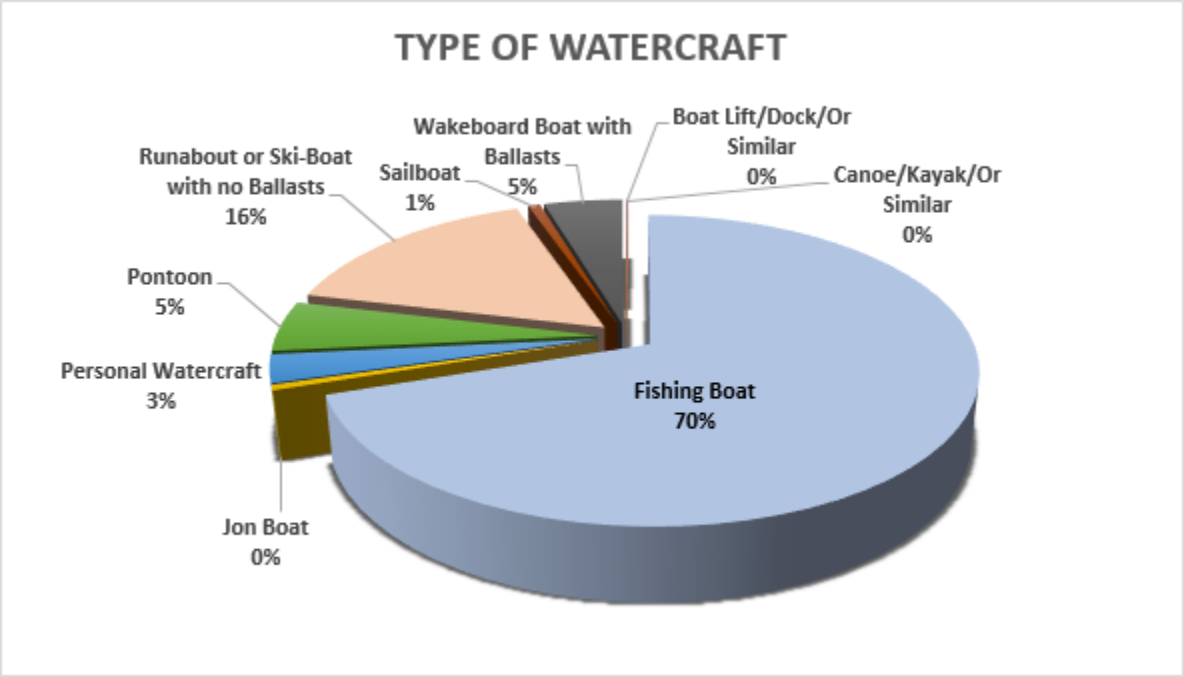
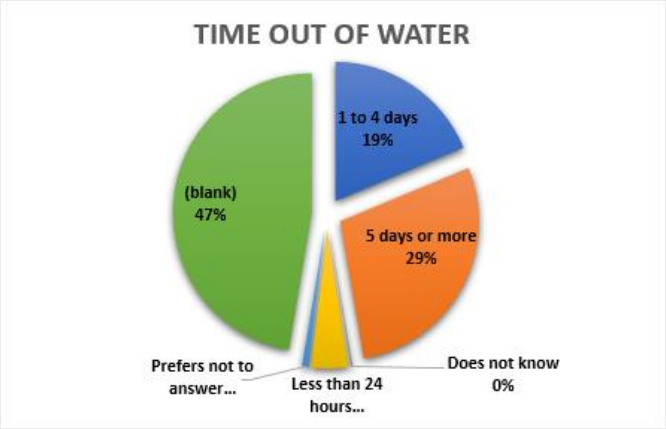


Figure 8: The above chart shows the percentage of inspections conducted on each type of watercraft.

The majority of entering lake users reported that the watercraft under inspection had been out of water for the recommended 5 days or more (Figure 9). However, 23% reported that the watercraft had been out of water for less than the recommended time (19% reported 1-4 days and 4% less than 24 hours).



Roughly 98.5% of incoming watercrafts were from Minnesota. The 1.5% of out-of-state watercrafts encompasses 23 different states (Figure 10).

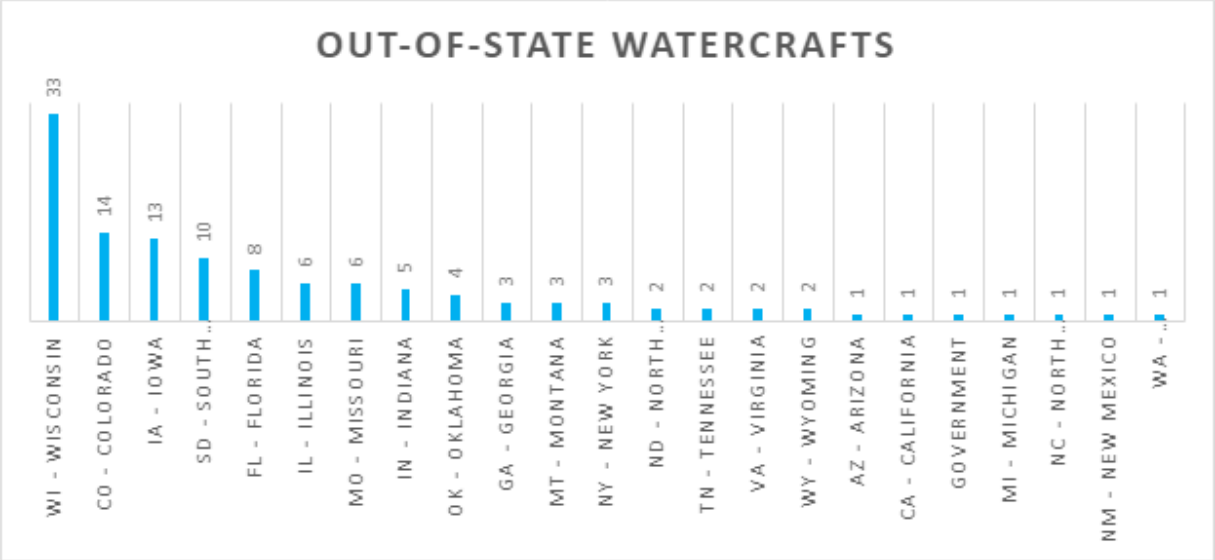


Figure 10: The above chart shows the number of inspections conducted on out-of-state watercrafts entering Lake Waconia.

Wisconsin was the most recorded state, making up 26% of all out-of-state watercraft inspections, followed by Colorado and Iowa at 11% and 10%. Many of the states from which watercrafts came have waterbodies infested with invasive mussels. It is important to thoroughly inspect these watercrafts and ensure boaters follow the MN AIS Laws, as they vary from state-to-state.

During the 7,798 entrance inspections, 64% of boaters reported that the last lake the watercraft had been in was Lake Waconia. However, the most common responses of lakes other than Lake Waconia included Lake Minnetonka and Lake Minnewashta, both of which are zebra mussel infested waters (Figure 11). Invasives are often transferred unintentionally from one lake to another via trailer, watercraft, or water-related equipment. A total of 361 boaters (13%) reported that they did not know the last lake they were in and 153 boaters (5%) stated it was the first time taking it out that season.

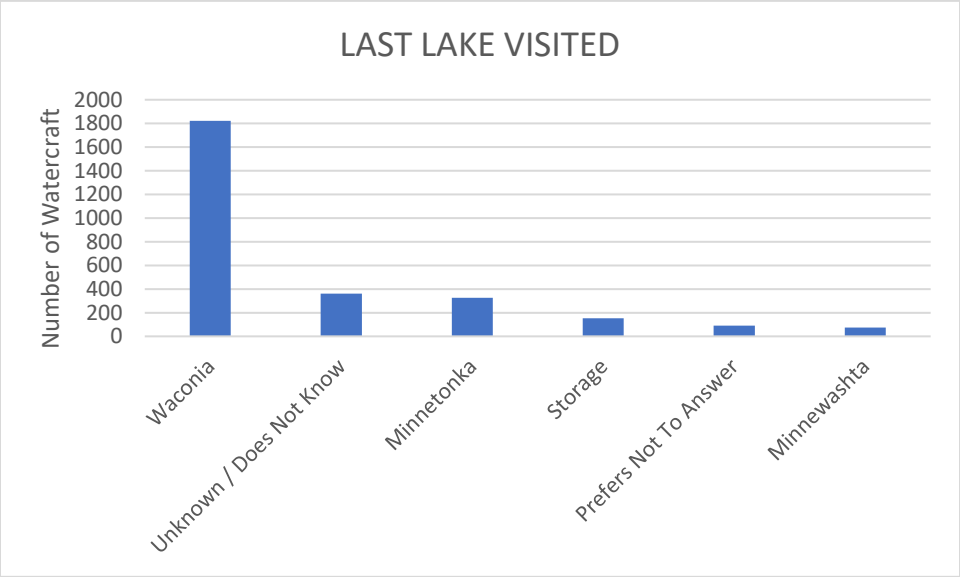
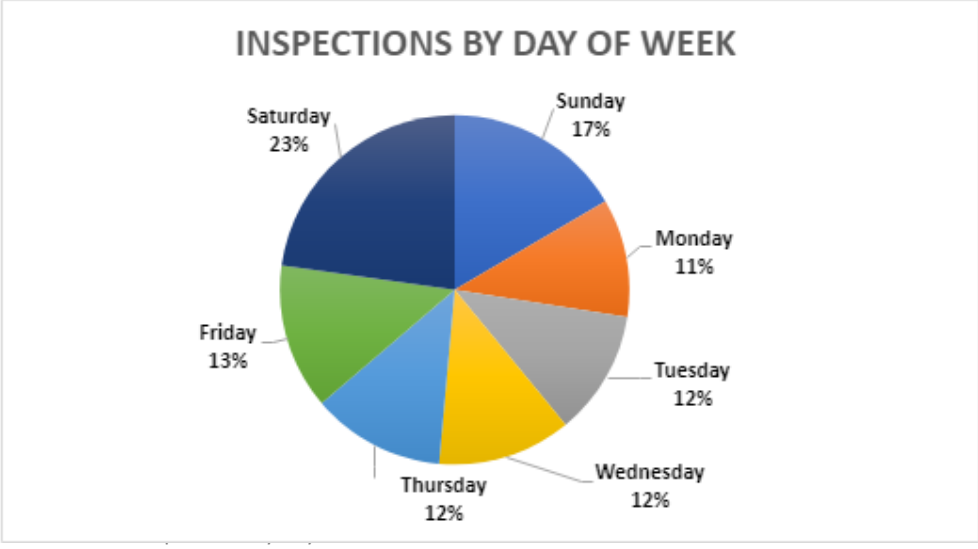


Figure 11: The above chart displays the number of watercrafts that had last launched on a lake other than Waconia.

Inspection data shows that most inspections were conducted on Saturdays (23%) followed closely by Sundays (17%), including both entrance and exit inspections (Figure 12).



Inspection surveys were grouped into 1 of 3 timeframes: 6am-10:59am, 11am-3:59pm, and 4pm-8pm. Overall, 11am-3:59pm was the busiest time with 43% of all inspections (exit and entrance) conducted during this time frame.

Weekend afternoons were the busiest times for Lake Waconia inspectors, more than double the number of inspections on weekdays (Figure 13). During the week, the afternoons (11am-3:59pm) and evenings (4pm-8pm) are the busiest times

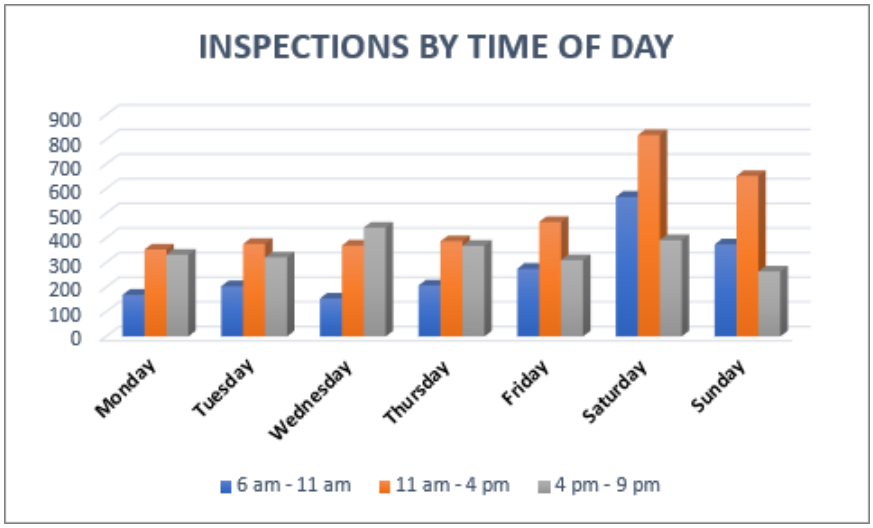


Figure 13: The above chart shows the number of inspections by time of day. Note: this data set only includes inspections conducted at the Waconia access while inspectors are present.

Inspection Findings and Violations

Overall, there were a total of 326 violations of MN AIS Laws (7.9% of all entering inspections conducted). This includes drain plug violations (235) and AIS found during entrance inspections (91). During entrance inspections, most violations (79) were due to plants (removable by hand) found on the watercraft, trailer, or equipment (Figure 14). Zebra mussels were found during 4 entrance inspections.

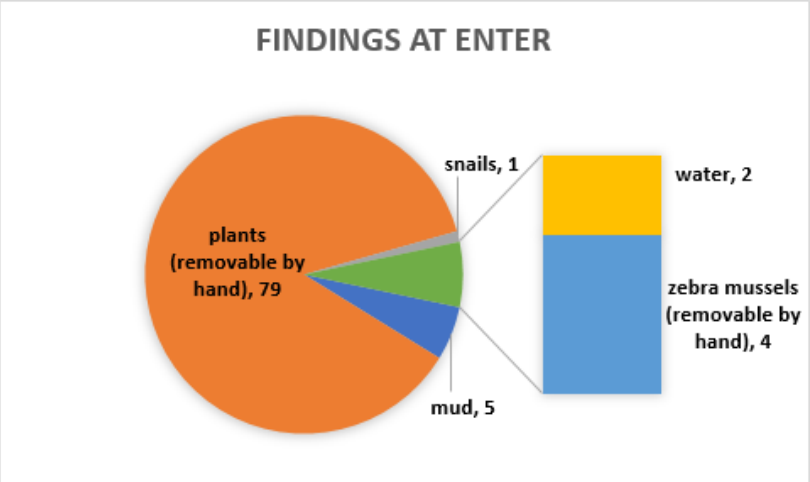


Figure 14: The above chart shows the species found during entrance inspections only. These are considered violations.

Of all the inspections where AIS, vegetation, mud, or water were found (725), exit inspections made up 86% (or 634). Though these are not considered violations upon exit, it is important to know what is coming out of the lake and could potentially enter another if exit inspections were not in place at the access. The most common discovery during exit inspections were plants (removable by hand) making up

89% (or 564). Water was found on exit in 9 cases. A total of 38 inspections resulted in zebra mussel findings, 3 would require decontamination while 35 were removable by hand (Figure 15).

Plants (removable by hand) were the most common finding at both entrance and exit inspections accounting for 89% followed by zebra mussels (removable by hand) at 5% and water at 1.2%. Unfortunately, data does not show whether the plants found were invasive.

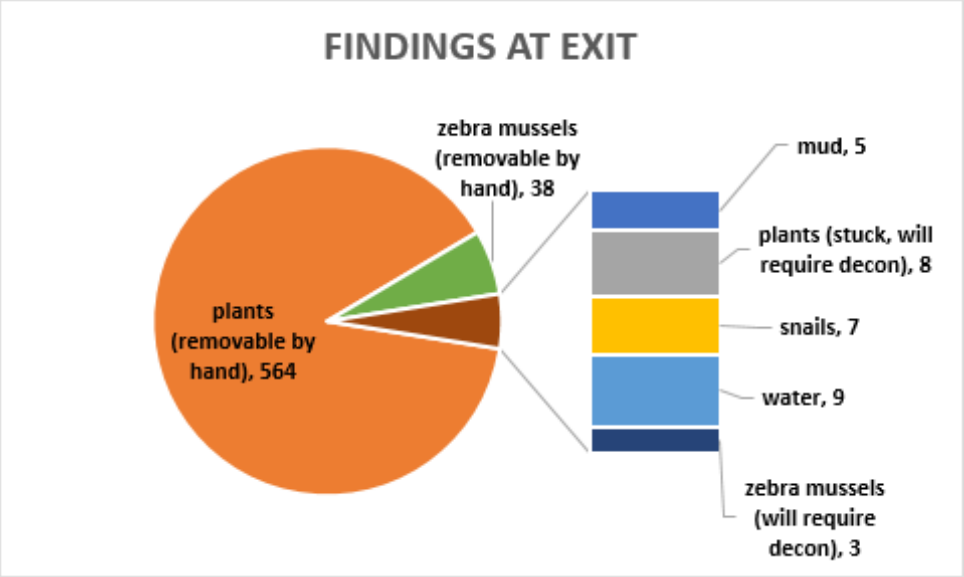


Figure 15: The above chart shows the percent of species found on exit inspections only. These are not considered violations.

Lake Bavaria

General Inspection Information

Bavaria was scheduled to receive 875 staffed hours from May 9th to September 7th plus a few extended season days during October to catch duck hunter traffic, but actual hours were fewer due to a shortage of inspection staff. During this time, 1,861 inspections were conducted (Table 3). Lake Bavaria is staffed all day on Friday, Saturday, and Sunday. However, during weekdays it is only staffed in the evenings. Inspection data shows that of the 1,861 inspections at Lake Bavaria, 635 (or 34%) were conducted on fishing boats followed by runabouts/ski boats with no ballast tanks at 31% (Figure 16).

Table 3: Lake Bavaria Inspection Types

Inspection Type	Count
Entering	1003
Exiting	858
TOTAL	1861

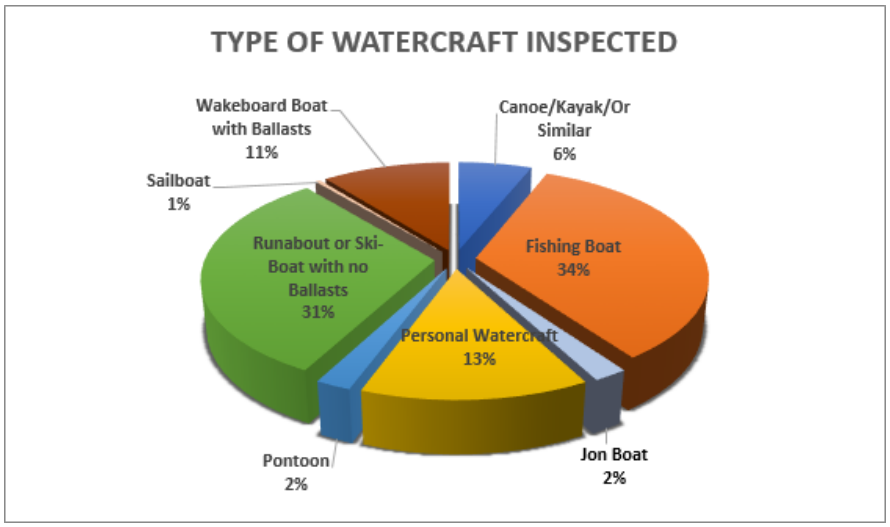


Figure 16: The above chart shows the distribution of inspections by type of watercraft inspected.

The majority of incoming watercrafts were reportedly out of water for the recommended 5 days or more (Figure 17). However, 44% (or a total of 222) reported less than 5 days. 30% reported a dry time of 1-4 days while 14% reported less than 24 hours.

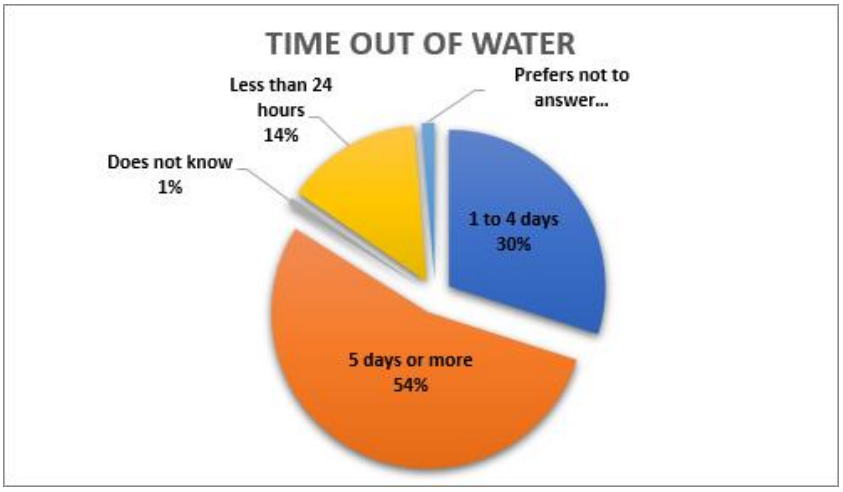


Figure 17: The above chart shows the reported amount of time watercrafts were out of water prior to entering Lake Bavaria.

With an influx of out-of-state boaters compared to 2019, 316 of the 1,861 total inspections for Lake Bavaria were watercraft from out-of-state. The most common out-of-state watercraft was from Wisconsin with 72 (22.7%) followed by Florida and South Dakota at 11% and 8% respectively (Figure 18).

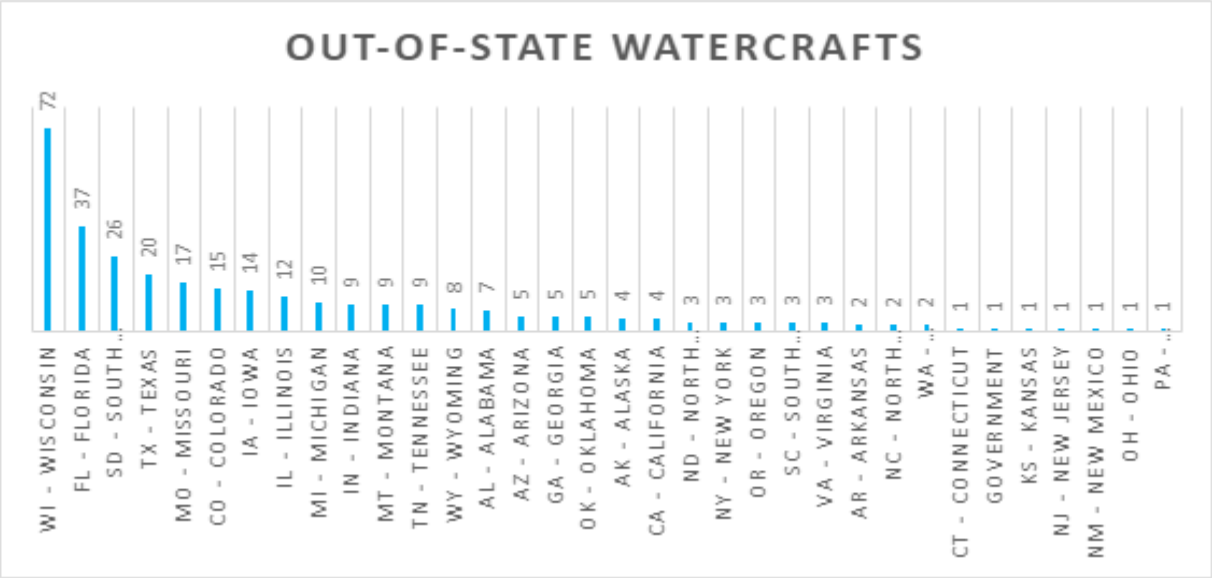


Figure 18: The above chart shows the number of inspections conducted on out-of-state watercrafts entering Lake Bavaria.

According to inspection data, other than Lake Bavaria and not counting boaters that did not know, Lake Minnetonka was the most common lake previously visited totaling 54 reports. Lake Minnetonka was followed by Lake Waconia at 53 reports (Figure 18). Both lakes are infested with zebra mussels.

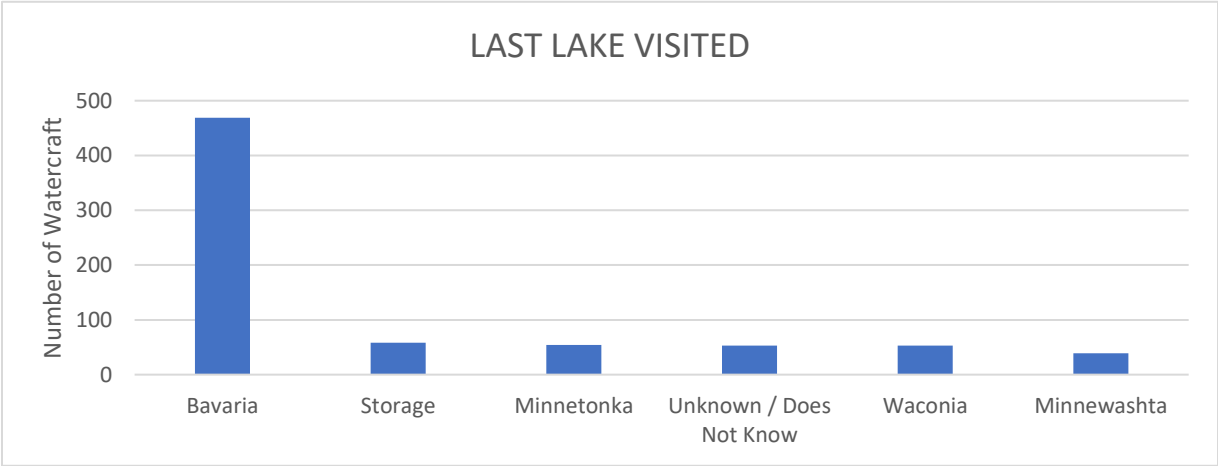


Figure 18: The above graph shows the top 7 responses when boaters were asked the last lake they visited.

Weekends were the busiest for inspectors at Lake Bavaria, specifically Saturdays with a total of 465 inspections conducted (Figure 19). However, as mentioned, the access is staffed all day on weekends and only in the morning during weekdays therefore the data may not accurately portray the busy times at the access but rather the busy times during staffed hours.

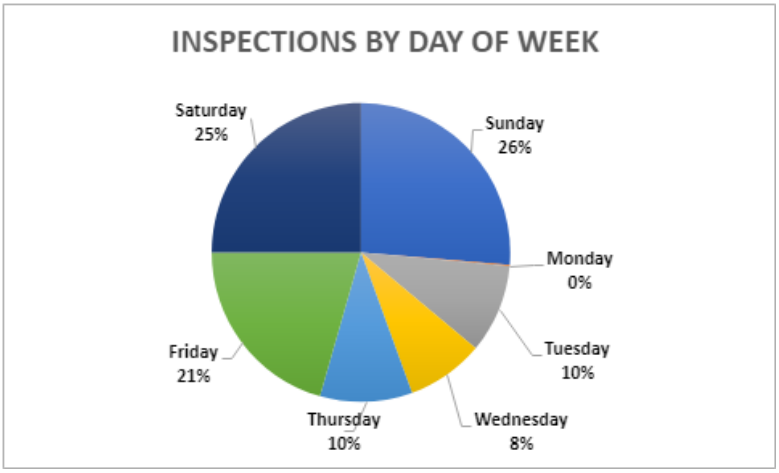


Figure 19: The above chart shows the distribution of inspections by day of the week. **Note: Lake Bavaria is staffed all day Friday-Sunday plus holidays and only evenings during the week.**

Inspection data was grouped into 1 of 3 timeframes to show what time of day is busiest at the access during staffed time. Overall, Saturday afternoons (11am-3:59pm) had the highest number of inspections conducted with a total of 281, Sunday afternoon closely followed with 252 inspections (Figure 20).

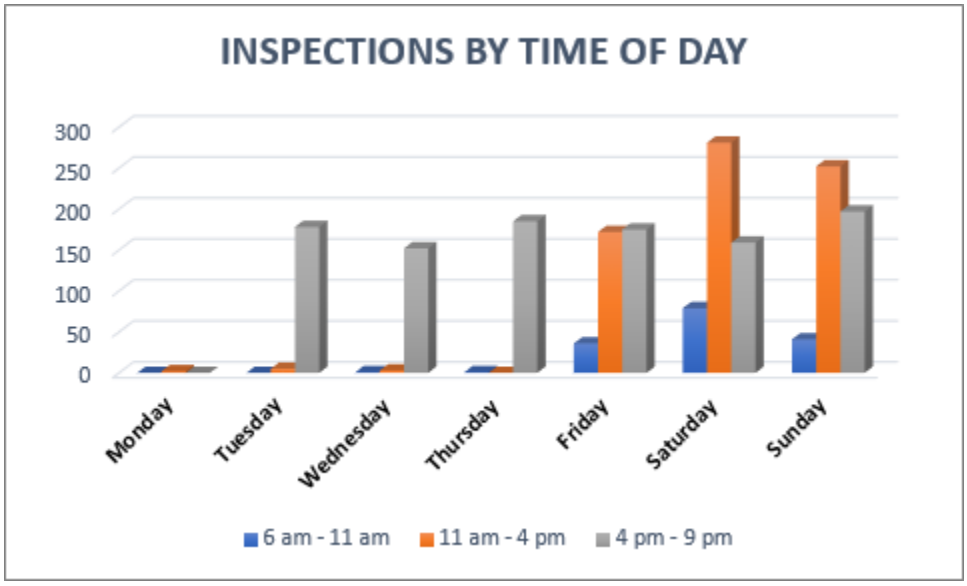


Figure 20: The above figure shows the number of inspections conducted by time of day. **Note: Lake Bavaria is staffed all day Friday-Sunday plus holidays and only evenings during the week.**

Inspection Findings and Violations

Overall, only 3.5% of (or 35) of entrance inspections resulted in a violation of MN AIS Laws. This includes 18 drain plug violations and 17 entering inspection violations due to plants or zebra mussels on the watercraft, trailer, or equipment.

A total of 99 AIS findings during exit inspections resulted in a species finding. Though these are not considered a violation of MN AIS Laws, they are potential violations that were caught prior to the watercraft leaving the access. Of the 99 potential violations, all of them were due to plants (98 removable by hand), plants requiring decontamination (1).

Plants (removable by hand) were the most common finding during both entrance and exit inspections accounting for 99% of all inspection findings found. However, it is unknown whether these plants were invasive. Often, clumps of vegetation contain larvae and other plant fragments that may be invasive so all plants, invasive or not, are important to remove.

Minnehaha Creek Watershed District Lakes

Lake Minnewashta

General Inspection Information

Lake Minnewashta was schedule to received 2,018 staffed hours from May 9th to October 11th, however actual inspection hours were fewer due to a shortage of inspection staff. According to the Minnesota Department of Natural Resources (MN DNR) inspection data, 5,214 inspections took place at Lake Minnewashta (Table 4). Lake Minnewashta is staffed all day Sunday through Saturday. Approximately 62% of the total inspections were conducted on fishing boats. The second most common watercraft type were runabouts/ ski-boats (20%) (Figure 22).

Table 4: Lake Minnewashta Inspection Types

Inspection Type	Count
Entering	3,410
Exiting	3,022
Lift	25
TOTAL	**6,457**

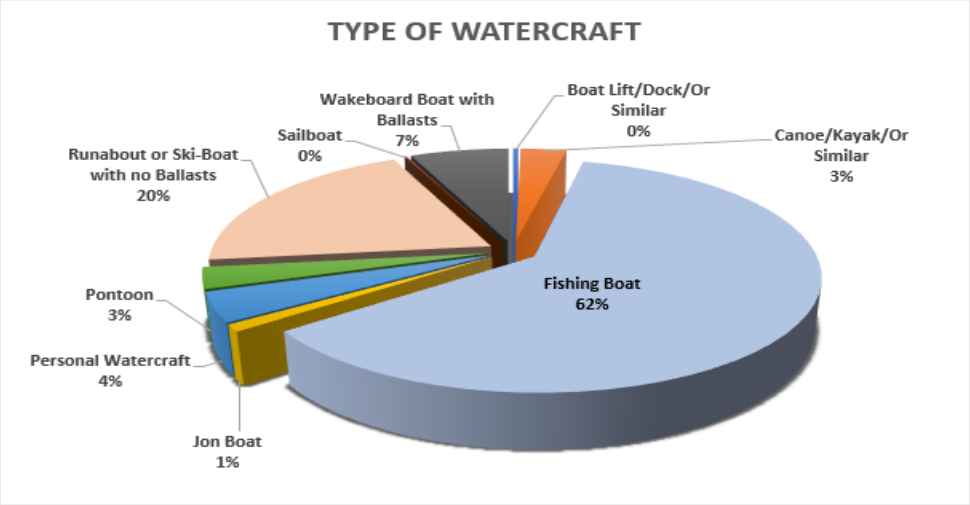


Figure 22: The above chart shows the breakdown of the total inspections by type of watercraft.

A majority (69%) of people entering the lake reported that the watercraft was out of water for the recommended 5 days or more (Figure 23). However, 777 boaters were entering the lake after 1-4 days and 96 after less than 24 hours. Together, roughly 31% of incoming watercraft had not reached the 5-day dry time prior to entering a new lake. This increases the potential for infestations on Lake Minnewashta.

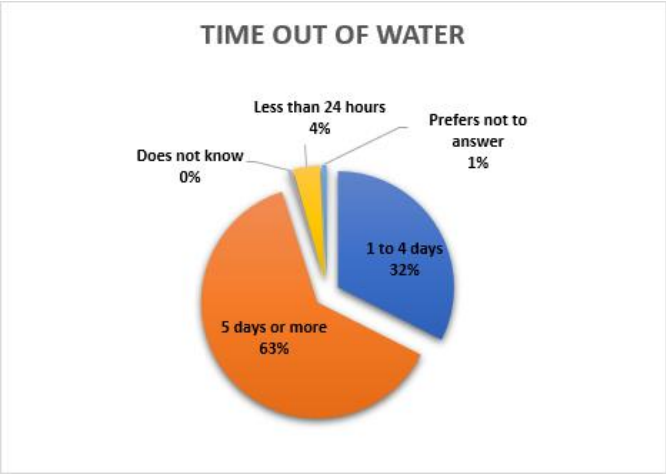


Figure 23: This pie chart shows the reported amount of time out of water for incoming watercraft.

Aside from Lake Minnewashta (68%), inspection data shows that Lake Minnetonka and Lake Waconia were most reported as the last waterbody visited (255 and 136 watercrafts respectively) (Figure 24). Both Lake Minnetonka and Waconia are zebra mussel infested waters which increases the potential of new zebra mussel introductions.

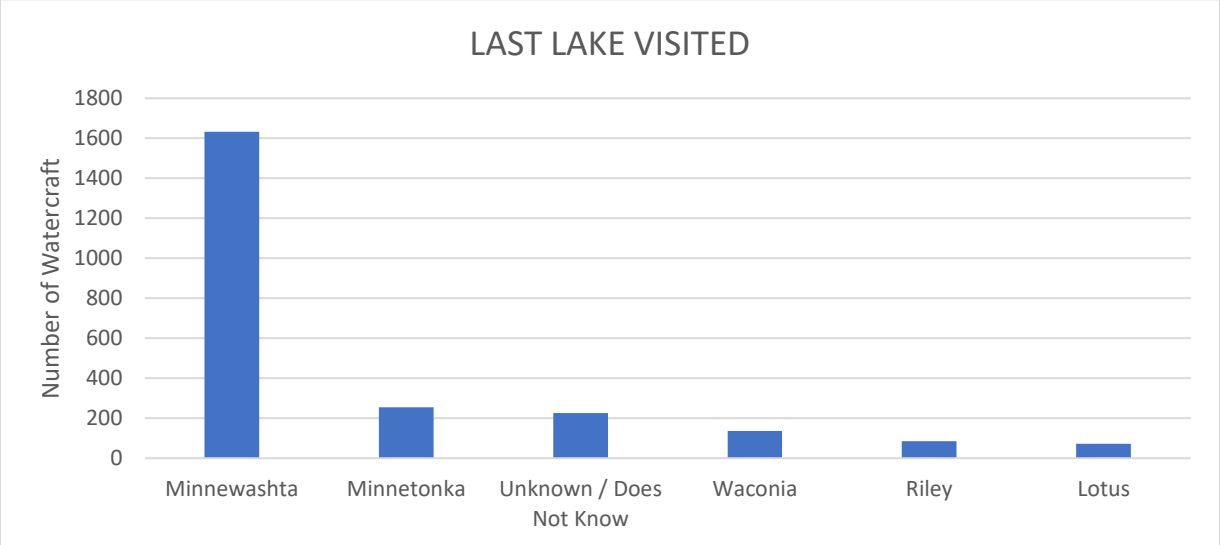


Figure 24: The above graph shows the top 7 responses when boaters were asked the last lake they visited.

Over 98% of watercrafts that were inspected were from Minnesota. A total of 111 watercrafts from 20 different states and many of the reported states have waterbodies infested by zebra invasive mussels (Figure 25). As laws differ from state-to-state it is important to thoroughly inspect all watercraft and ensure out-of-state boaters are following the Minnesota AIS laws.

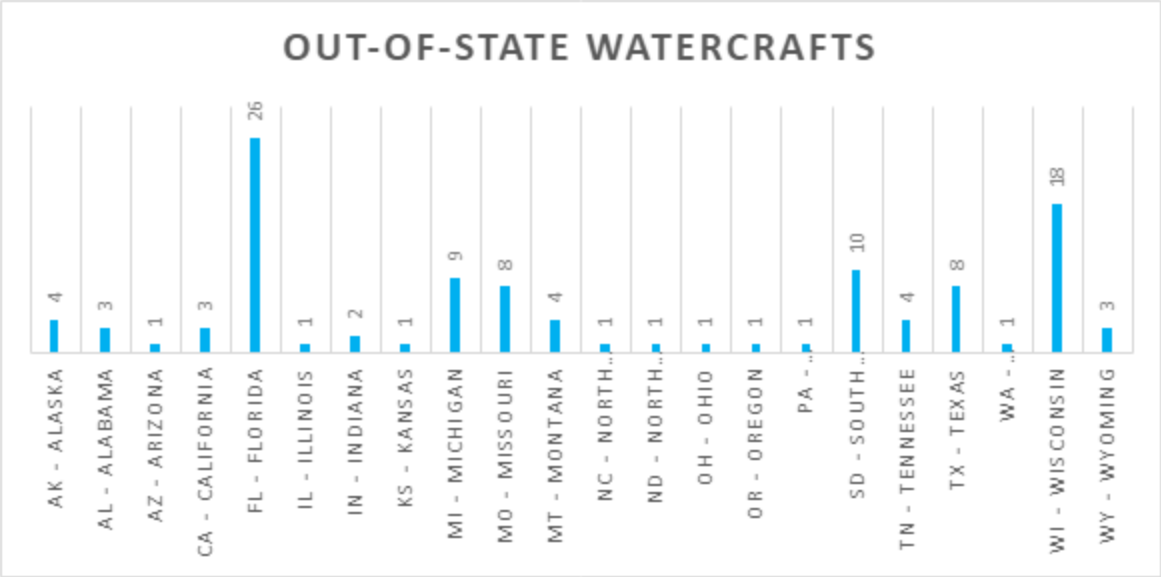


Figure 25: The above graph shows the number of watercrafts entering Lake Minnewashta from a different state.

According to inspection data, Saturday and Sunday were the busiest days, accounting for roughly 41% of all inspections, followed by Fridays at 12% (Figure 26). Inspection surveys were sorted into 1 of 3 timeframes: 5am – 10:59am, 11am – 4:59pm, and 5pm – 10pm. Afternoons were consistently the busiest time for inspections during the weekend, while evenings were the busiest during the week. (Figure 27).

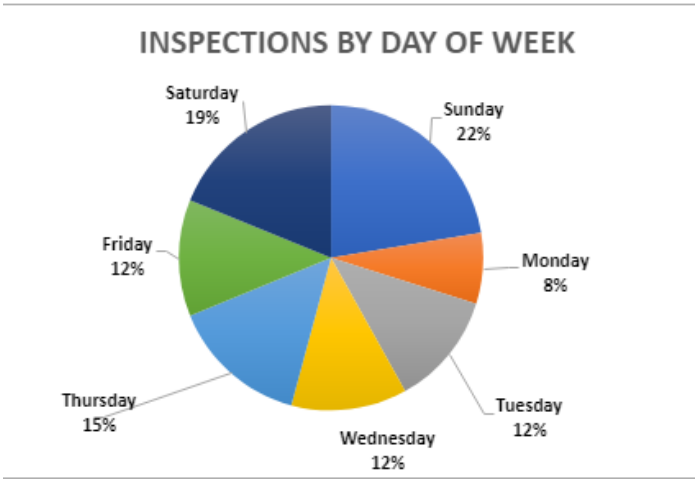


Figure 26: The above graph shows the number of watercrafts entering Lake Minnewashta from a different state.

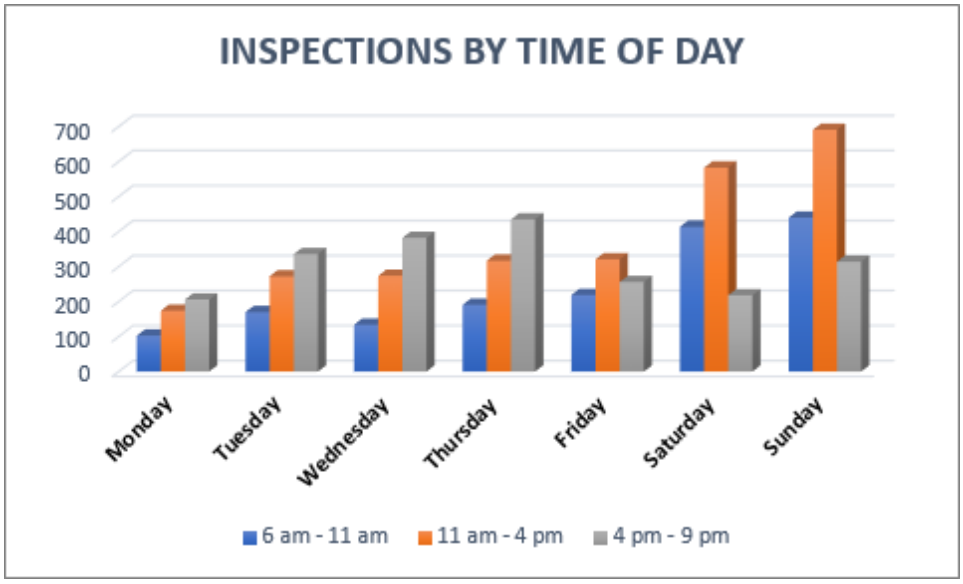


Figure 27: The above chart shows the number of inspections at the access by time of day.

Inspection Findings and Violations

Overall, only 8% of incoming boaters had a violation of the MN AIS Laws upon entrance to Lake Minnewashta. The entering inspection findings include 47 drain plug violations and 226 cases where species were found (Figure 28). The most common type of findings during entrance and exit inspections were plants removable by hand (72%). Three incoming watercrafts were found to have zebra mussels (removable by hand).

A majority (1332) of findings were found during exit inspections (Figure 29) were plants that were removeable by hand (87%). There was one instance of zebra mussels found on an out-going watercraft.

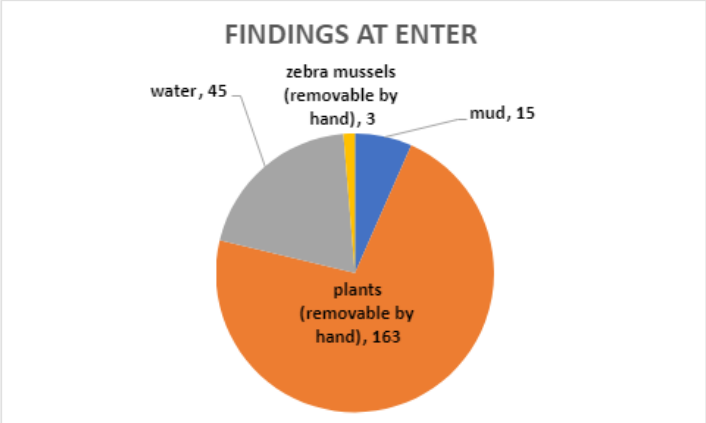


Figure 28: The above chart shows the variation of findings during entrance inspections.

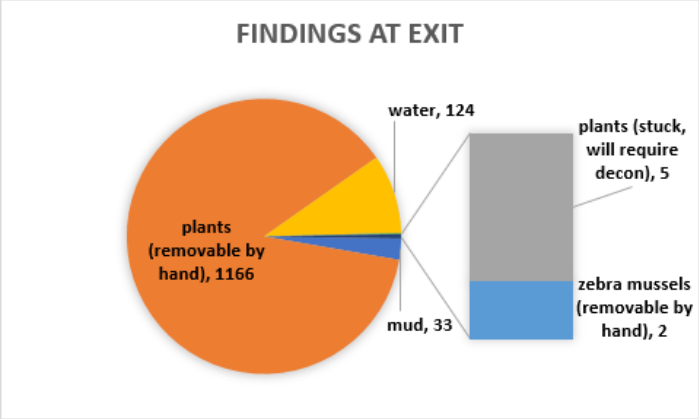


Figure 29: The above chart shows the variation of findings during exiting inspections.

Piersons Lake

General Inspection Information

Piersons Lake was scheduled to receive approximately 925 staffed hours from May 9th to September 7th however actual inspection hours were fewer due to a shortage of staff. There were 2,263 inspections completed during this time (Table 5).

Table 5: Piersons Lake Inspection Types

Type of Inspection	Count
Entering	1326
Exiting	935
Lift	2
Total	**2263**

Fishing boats were the most common type of watercraft inspected at 1,344 inspections (59%). The second most common watercraft type was runabouts/ski-boats without ballasts at 15% of the total inspections. The remaining 26% of inspections were conducted on a variety of watercraft types (Figure 30).

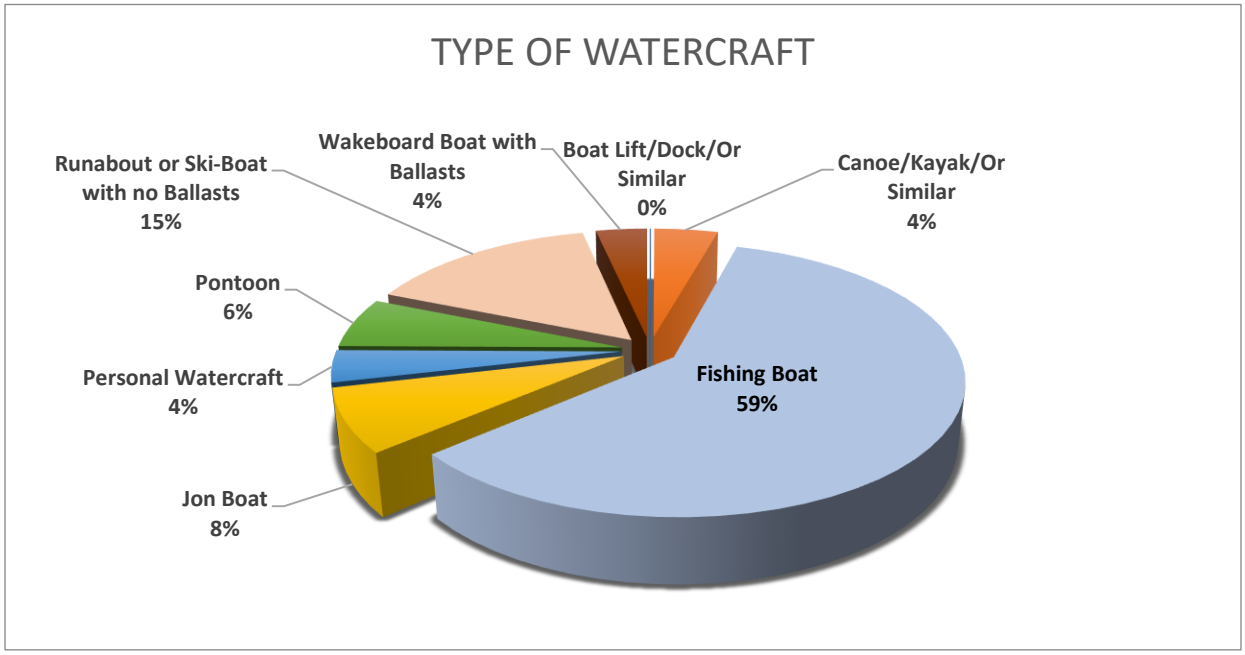


Figure 30: The above chart depicts the variety of watercraft inspected in the 2020 inspection year at Piersons Lake.

Sixty-four percent of people entering Piersons Lake reported that the watercraft had been out of water for the recommended 5 or more days (856 inspections). However, 23% reported it had only been 1-4 days while 11% was less than 24 hours since the watercraft had been in water. The remaining 2% did not know or preferred not to answer (Figure 31).

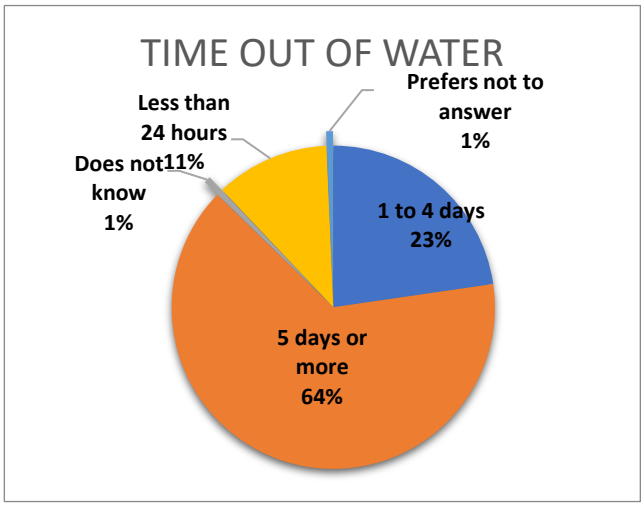


Figure 31: The chart shows the reported time out of water for incoming watercrafts.

Aside from Piersons Lake (606 incoming boaters or 67%), Lake Waconia was the most common lake last visited (10%), followed by Minnewastha (4%), and Minnetonka (3%), all lakes that are infested with zebra mussels which increases the potential of Piersons Lake being infested (Figure 32). A significant portion of boaters did not know the last lake they visited which also increases the potential for infestation when boaters aren't aware of AIS risk.

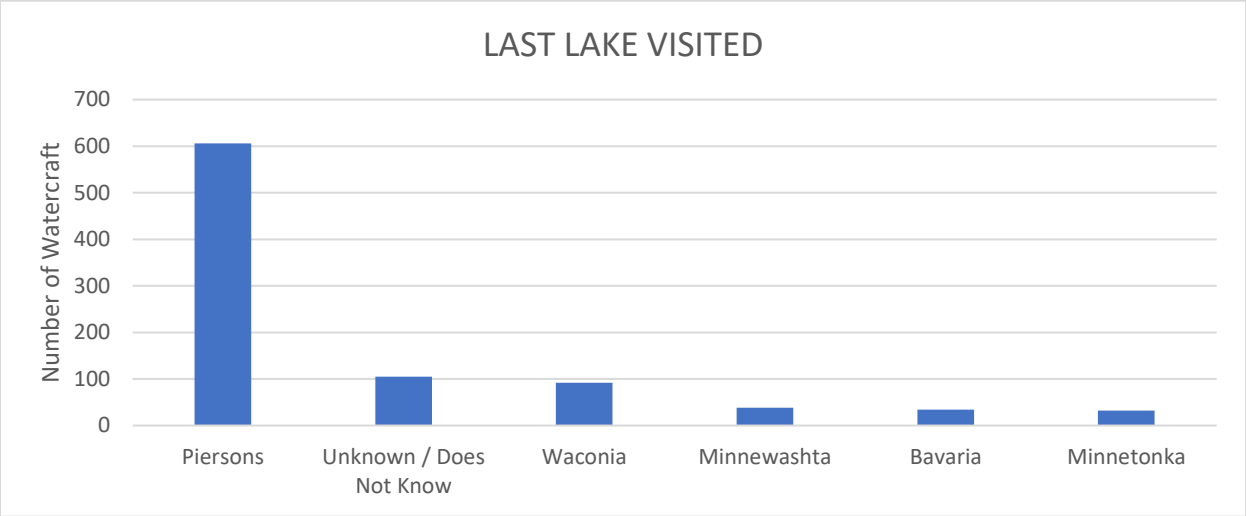


Figure 32: The above graph shows the top 6 most common lakes that the incoming watercraft had last been in.

Although 98% of boaters were from Minnesota, Piersons Lake was accessed by 42 out-of-state boaters from fourteen different states led by Texas (11), Wisconsin (7), and South Dakota (5) (Figure 33).

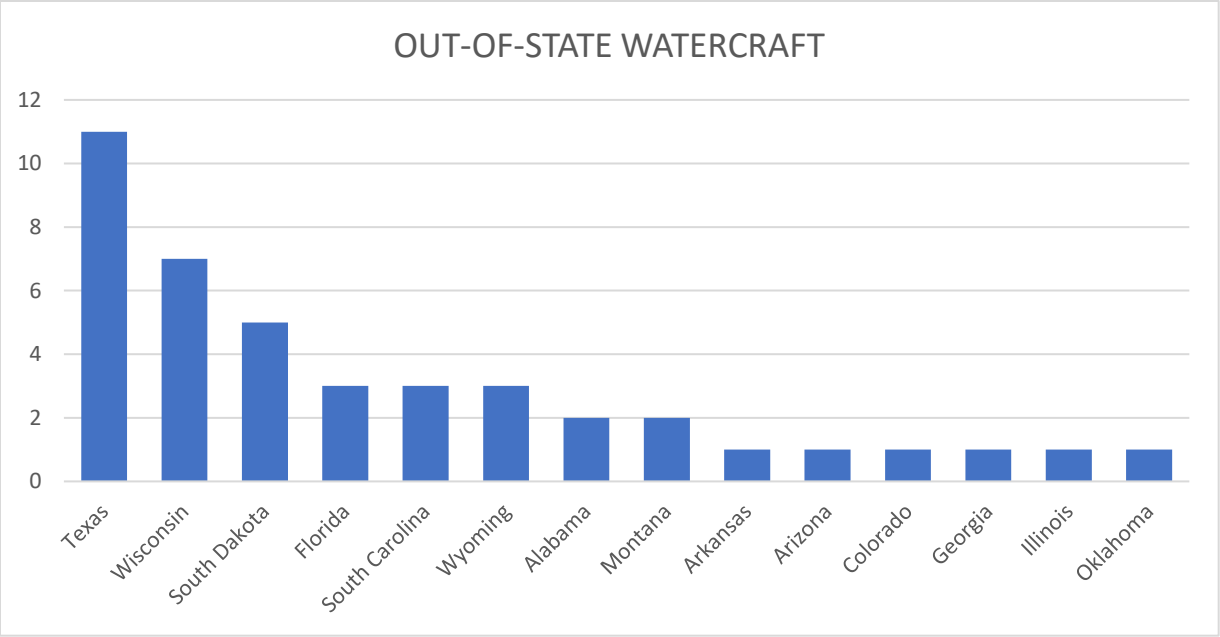


Figure 33: The above graph shows the number of out- of-state watercraft inspected.

According to inspection data, Saturdays were the busiest day for inspectors with 35% of all inspections (Figure 34). Sunday and Friday were the next busiest days at 26% and 20% of all inspections. Survey data was sorted into 1 of 3 timeframes (6am-10:59am, 11am-3:59pm, and 4pm-8pm) to determine the most active times at the access. Saturday afternoons were the busiest time at the access during staffed hours and accounted for 16% of all inspections. Sunday afternoons were a close second with 15% followed by Saturday mornings at 13%.

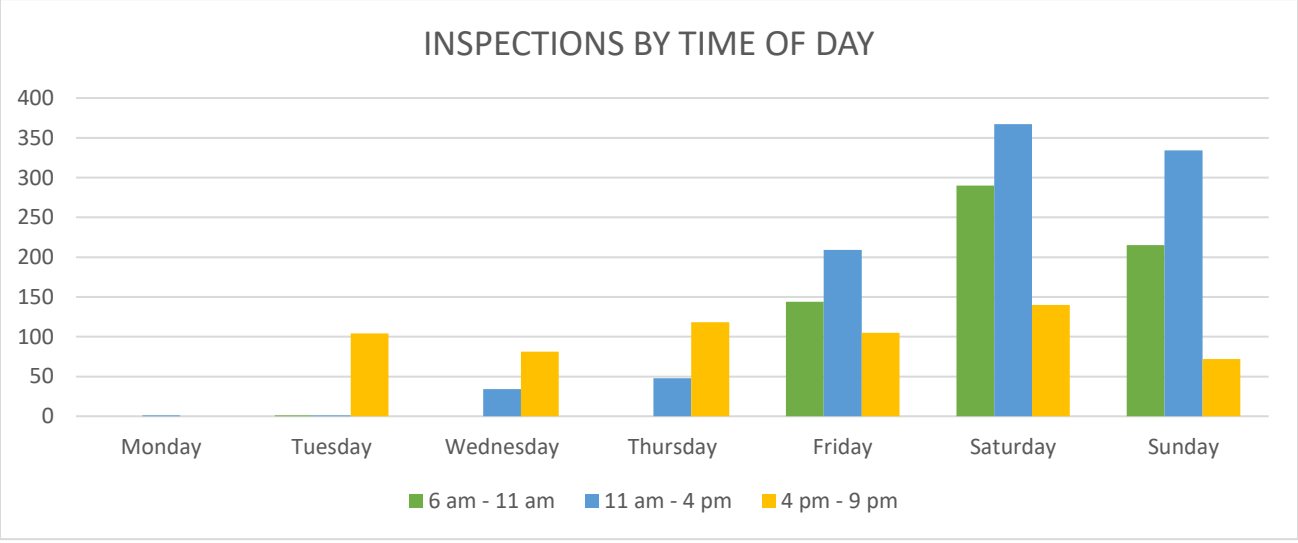


Figure 34: The above chart shows the number of inspections at the access by time of day.

Inspection Findings and Violations

There were 22 incoming violations at Piersons Lake. Of the 22 violations, 15 were findings during entrance inspections while 7 were drain plug violations upon arrival at the access. 13 of the 15 inspections with violations were due to plants removable by hand, and two violations were due to standing water. There were 148 findings upon exit which are not considered violations but still provide important information (Figure 35). Again, most of these findings were plants, two requiring decontamination. One exit finding involved residual water leftover in the watercraft.

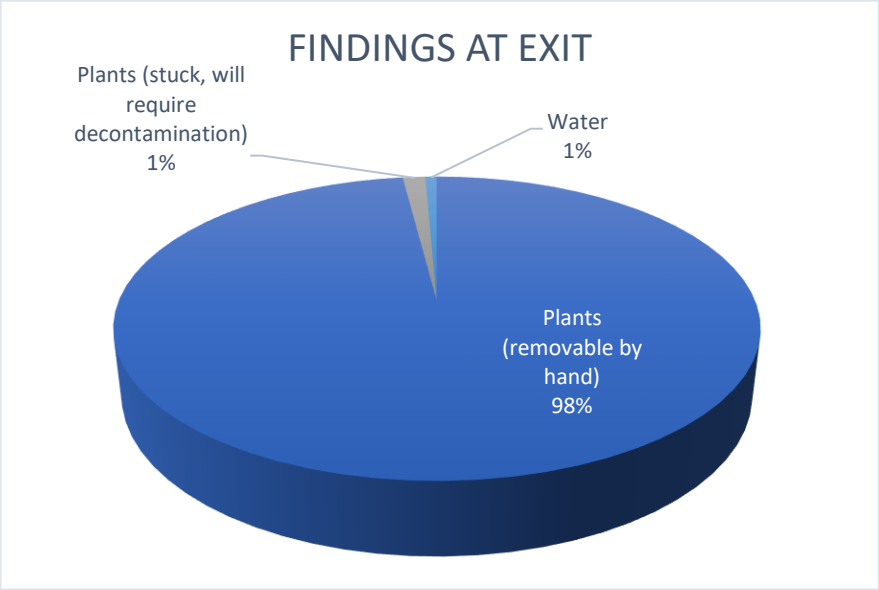


Figure 35: The above chart shows the variation of findings during exit inspections. These are not counted as violations.

City of Chanhassen Lakes

Lotus Lake

General Inspection Information

Lotus Lake was scheduled to receive 2,485 inspection hours, however the hours were fewer due to a shortage of staff. The access was scheduled to be staffed every day of the week from 6am-8pm from May 9th to September 7th, September 8th to September 30th form 6:30am- 7:30pm, October 1st to October 15th from 7 am- 7 pm, October 16th to October 31st from 7:30 am- 6:30 pm, and November 1st to November 15th from 7:00 am- 4 pm.

Table 7: Lotus Lake Inspection Types

Type of Inspection	Count
Entering	1383
Exiting	1137
Lift	9
Total	**2529**

During this time, a total of 2,529 inspections took place (Table 7). The most common types of watercrafts were fishing boats (52%) (Figure 36). The second most common were runabout/ski boats without ballast tanks (29%) followed by wakeboard boats with ballast tanks (7%).

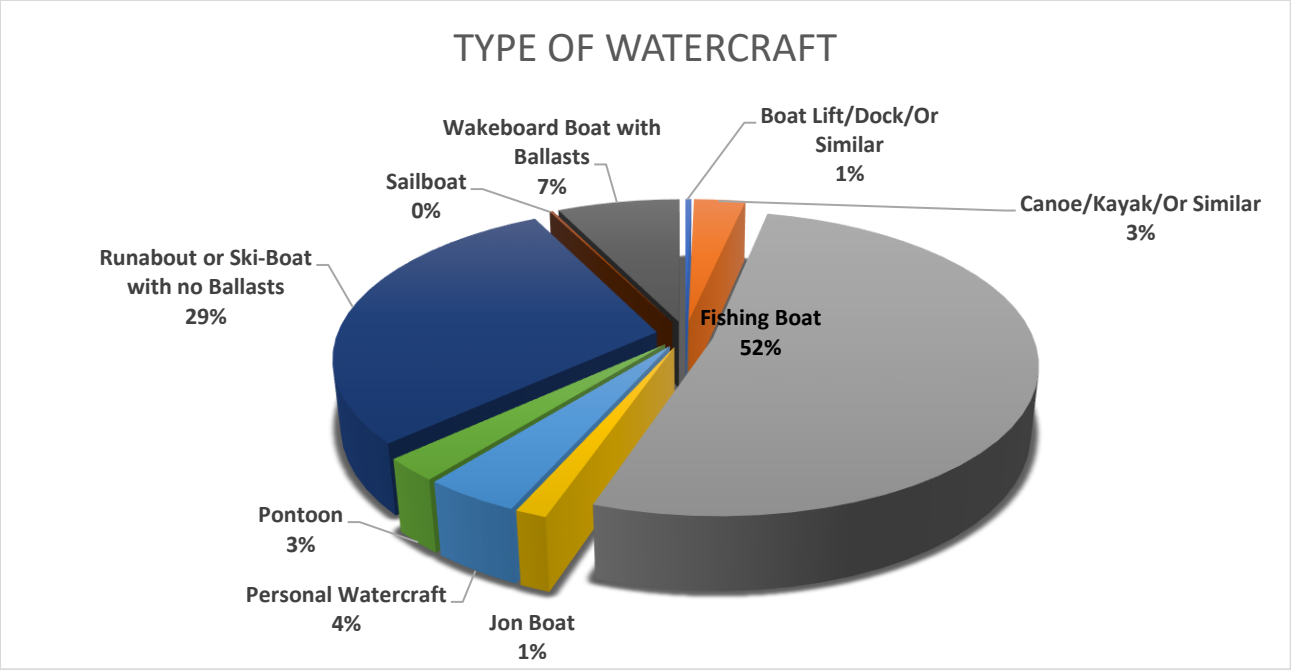


Figure 36: The above chart shows the type and percent of watercrafts that were inspected at Lotus Lake.

Of the entering watercrafts, 56% of boaters reported that the watercraft had been out of water for 5 days (the recommended dry time). However, most of the remaining responses were less than the recommended dry time at 1-4 days out of water (32%) and less than 24 hours (10%). About 1% of boaters either did not know or preferred not to answer (Figure 37).

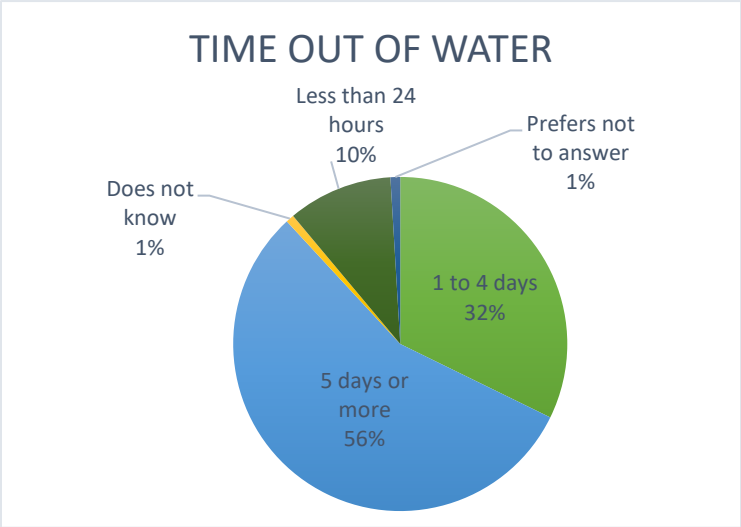


Figure 37: The above chart shows the reported amount of time out of water.

About 59% of incoming boaters reported that Lotus Lake was the last lake that the watercraft had been in (Figure 38). However, the other top responses were Lake Minnetonka (15%), Lake Riley (6%), and Lake Minnewashta (5%). All these lakes are infested by zebra mussels. Another almost 6% of boaters did not know the last lake that they visited.

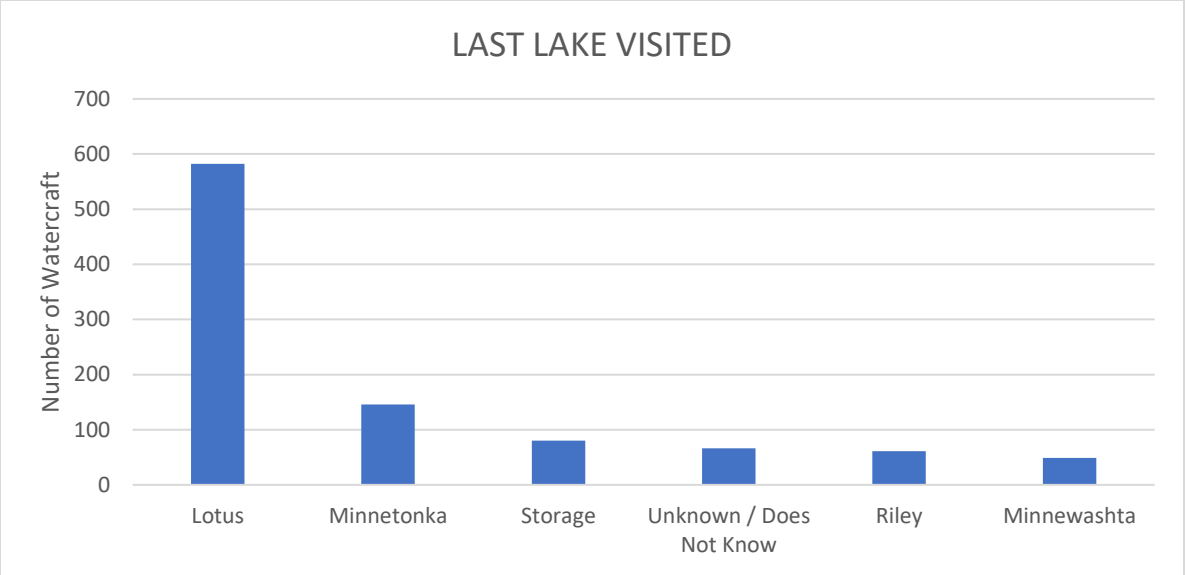


Figure 38: The above graph shows the top 7 responses by boaters when asked what lake/waterbody the watercraft had been in last.

Lotus Lake is largely visited by Minnesota residents with over 99% of all inspections being conducted on Minnesota watercraft. However, 25 out-of-state watercrafts entered the lake throughout the season from twelve different states (Figure 39). Most of the states from which the watercraft originates have waterbodies infested with invasive zebra mussels.

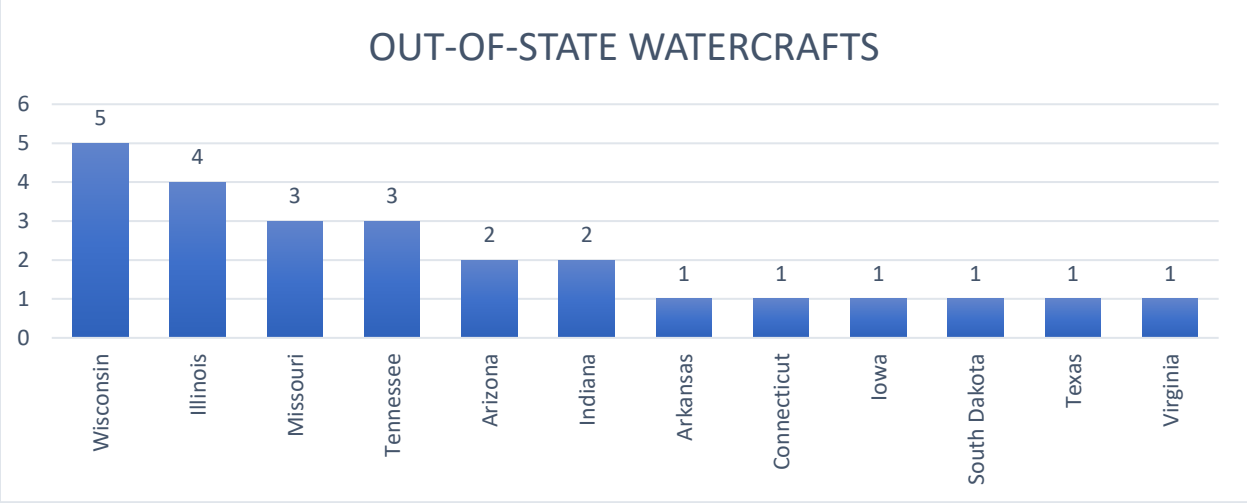


Figure 39: The above graph shows the number of out- of-state watercraft inspected.

Weekend inspections made up over half of the total inspections at Lotus Lake (56%) (Figure 40). The busiest day of the week for inspectors at the Lotus access was Sunday with a total of 591 inspections. Saturday followed closely with 455.

To determine the busiest time of day for inspectors, the survey data was put into 1 of 3 timeframes: 5am-10:59am, 11am-3:59pm, or 4pm-10pam. Data shows that Sunday afternoons (11am-3:59pm) had the leading number of inspections followed by Sunday Evenings (Figure 41).

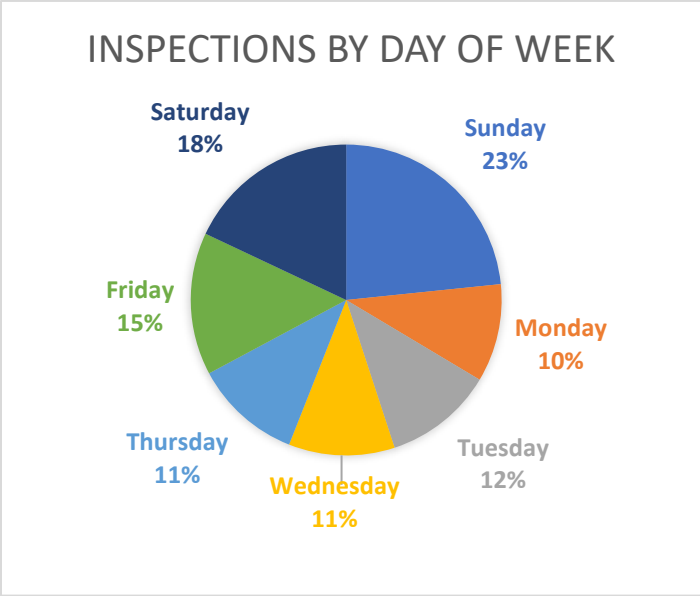


Figure 40: The above chart shows the distribution of inspections by day of the week.

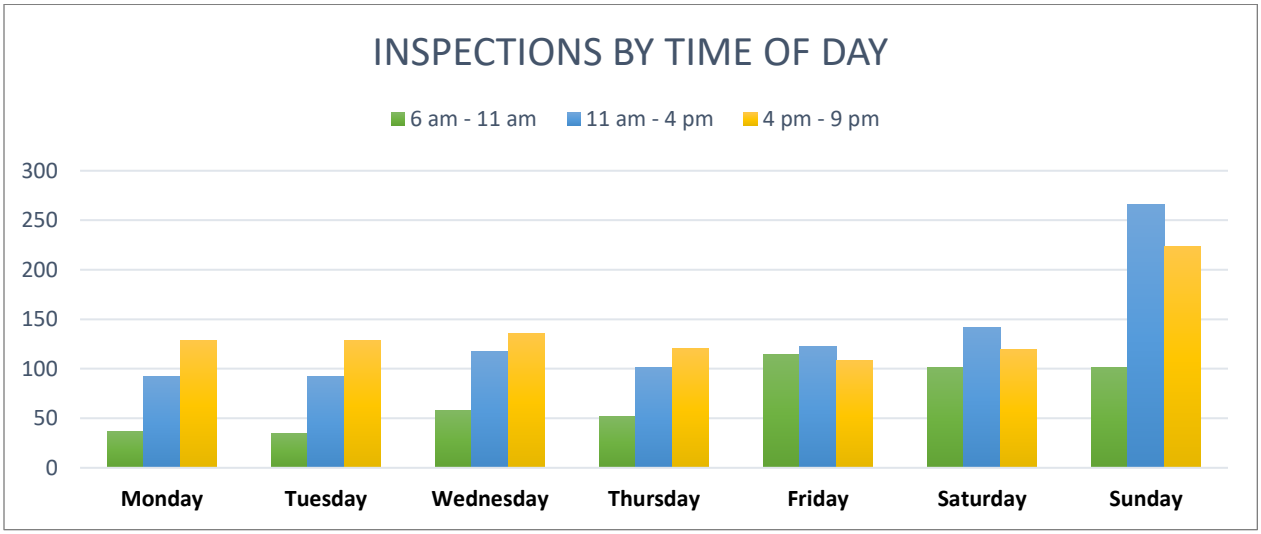


Figure 41: The above chart shows the number of inspections by time of day.

Inspection Findings and Violations

A total of 139 violations were found by inspectors at Lotus Lake. These violations made up 4% of all incoming inspections including 76 AIS findings of species found and 30 watercrafts approaching the access with the drain plug still in. Of the 38 findings of species found, standing water was the most common making up 66% of the violations, followed by plants at 28% (Figure 42). Five inspections resulted in zebra mussels, two that required decontamination.

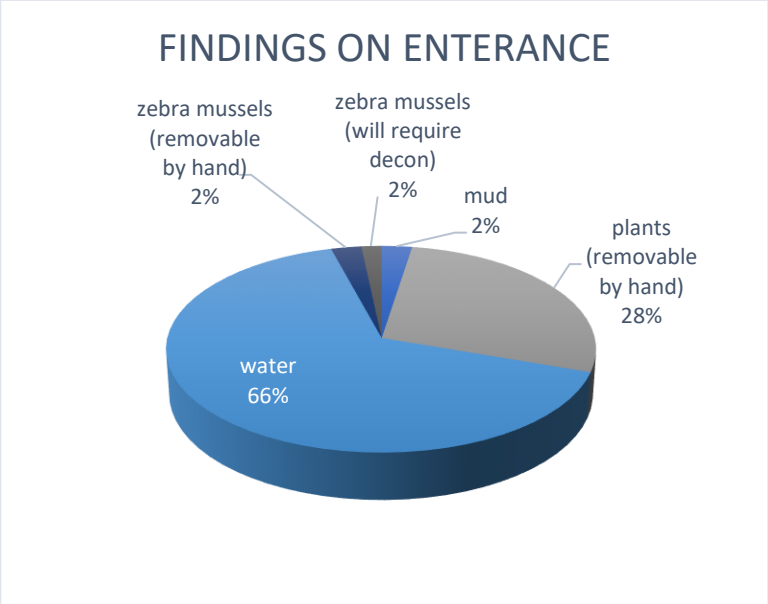


Figure 42: The above chart shows the variation of findings during entrance inspections.

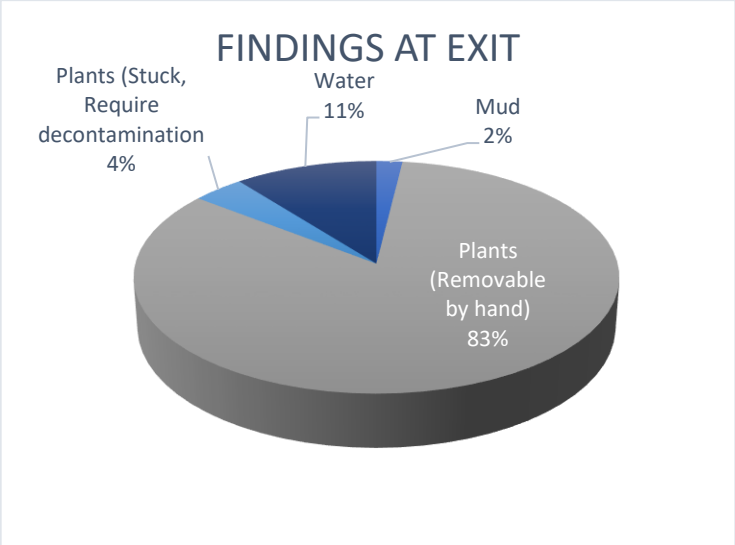


Figure 43: The above chart shows the variation of findings during exit inspections only.

Though exit inspection findings are not considered violations, it shows what is coming out of the lake that could potentially enter another. During the exit inspections, there were 90 instances of plants found (four of which required decontamination). Water was the next most common finding (Figure 43). There was no findings of a zebra mussels that occurred during an exit inspection in 2020.

Lake Ann

General Inspection Information

Lake Ann was scheduled to be staffed 628 hours from May 25th to September 7th. Generally, Lake Ann was staffed from either 6am or 7am until 8pm every Friday, Saturday, and Sunday and on holidays. During this time, 323 inspections took place (Table 8). In total, 168 (52%) were canoes/kayaks. The next most common types of watercrafts were fishing boats at 122 (38%) (Figure 44).

Table 8: Lake Ann Inspection Types

Type of Inspection	Count
Entering	169
Exiting	154
Total	**323**

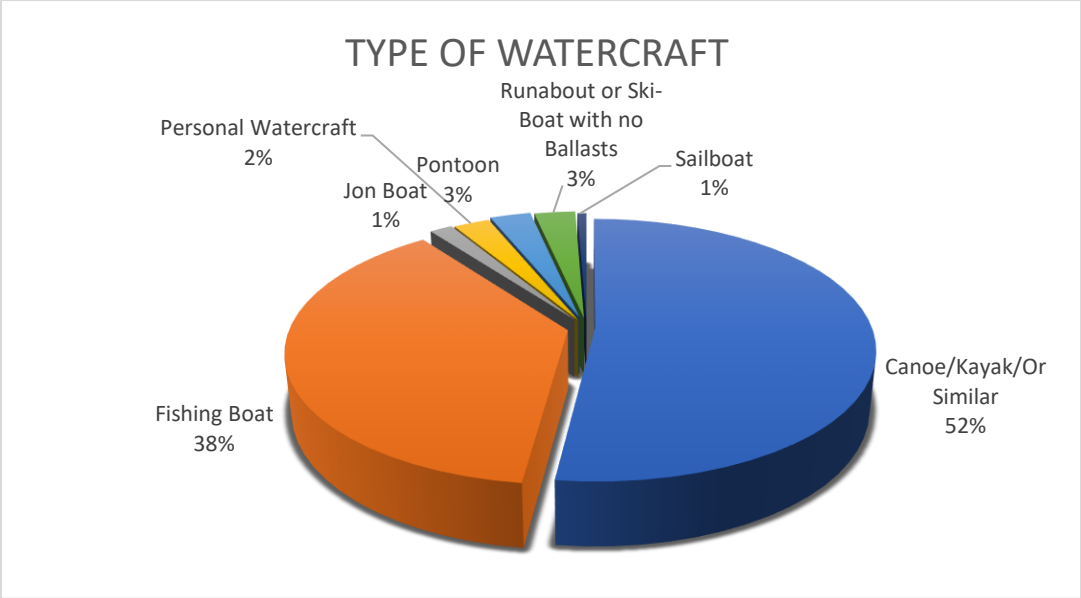


Figure 44: The above chart shows the type and percent of watercrafts that were inspected at Lake Ann.

A majority (60%) of people entering Lake Ann reported that the watercraft under inspection had been out of water for 5 days or more, the recommended length time (Figure 45). However, 30% of people reported that the watercraft was out of water for 1-4 days while 7% of people reported it had been less than 24 hours.

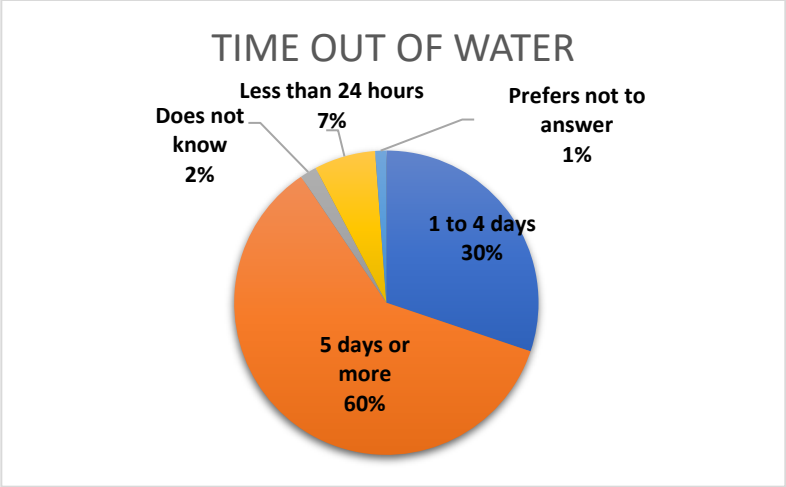


Figure 45: The above chart shows the reported amount of time out of water by incoming boaters only.

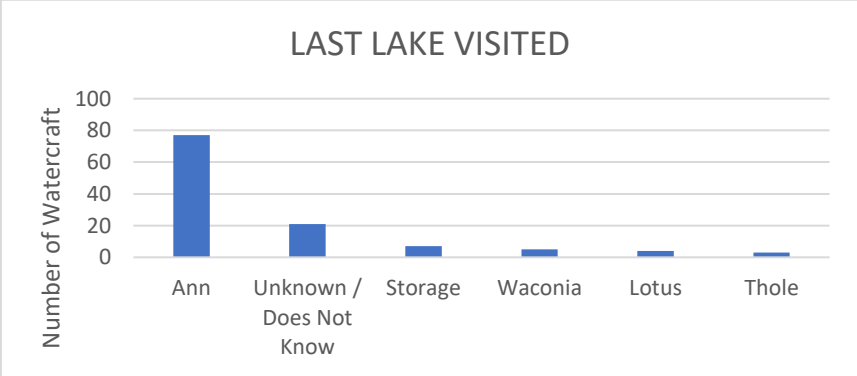


Figure 46: The above graph shows the top 6 responses from entering boaters who had previously been on a different lake.

Seventy-seven (or 66%) of incoming boaters reported that Lake Ann was the last lake the watercraft had been in with 21 (18%) boaters unsure what lake they had last been on (Figure 46). Other top responses included Lake Waconia (5), Lotus (4), and Thole (3).

During staffed hours, Ann was visited most on Fridays with a total of 131 inspections completed. Saturday was a close second with 100 inspections completed. When comparing inspections by the time of day, Friday evenings (4:00pm- 9:00pm) was the busiest time for inspectors (Figure 47).

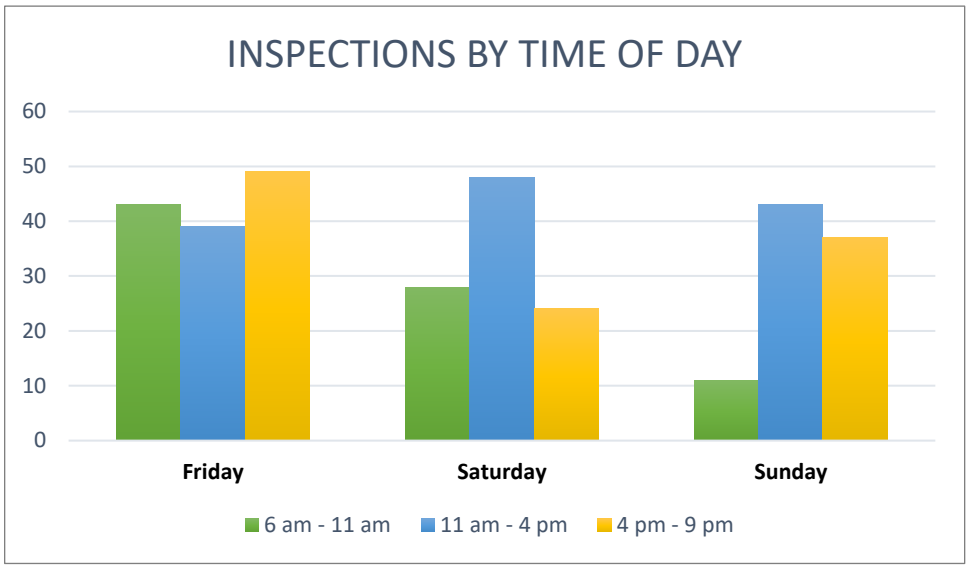


Figure 47: The above chart shows the distribution of inspections by time of day. **Note: Lake Ann was not staffed during the week unless it was a holiday.**

Inspection Findings and Violations

There was a total of 10 violations of MN AIS Laws at Lake Ann during the 2020 inspection season. Eight of these were findings during entrance inspections while 2 were drain plug violations. The violations were plants removable by hand (4) and mud (4). Though not considered violations, there were 21 findings from outgoing watercraft, the majority being plants removable by hand (90%) (Figure 48).

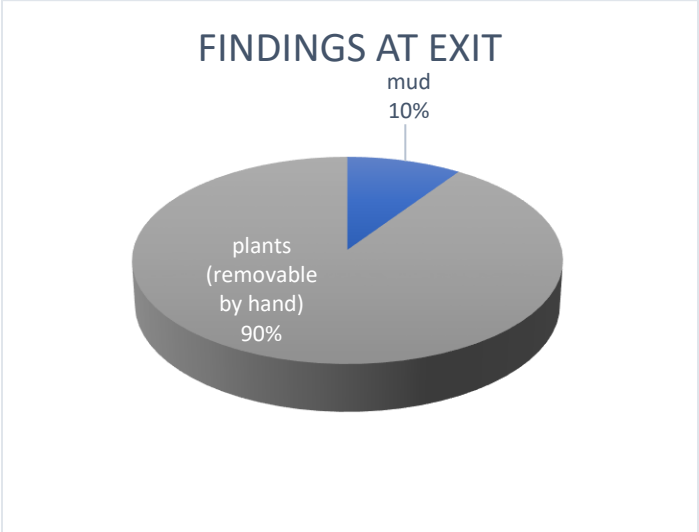


Figure 48: The above chart shows the variation of findings at exit inspections only.

Lake Susan

General Inspection Information

Lake Susan was scheduled to receive 628 hours from May 25th to September 7th. Inspectors were scheduled every Friday, Saturday, Sunday, and holidays from either 6am or 7am until 8pm. During this time there were 110 inspections (Table 9) with 64% of them being conducted on fishing boats (Figure 49).

Table 9: Lake Susan Inspection Types

Type of Inspection	Count
Entering	62
Exiting	48
Total	**110**

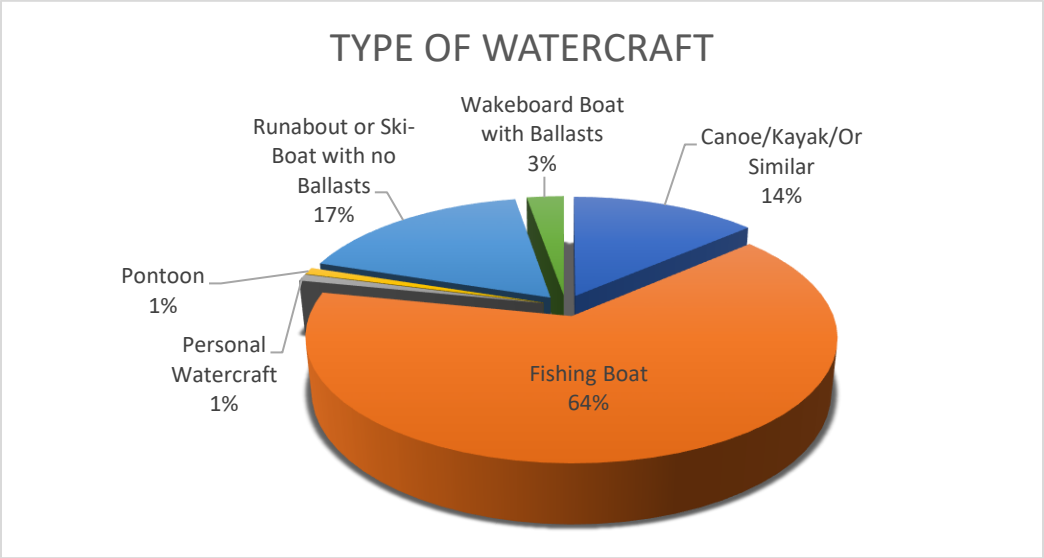


Figure 49: The above chart shows the percent of inspections that were conducted based on watercraft type.

According to the MN DNR Inspection data, a majority of entering lake users (68%) reported that the watercraft being inspected had been out of water for the recommended 5 days (Figure 50). However, 21% reported being out of the water only 1-4 days and 8% reported the watercraft had been out of the water for less than 24 hours.

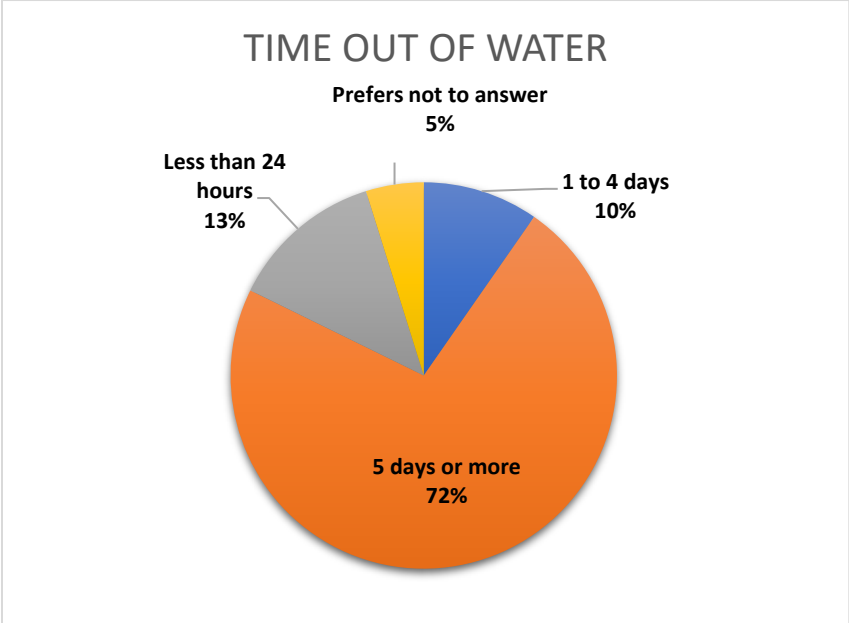


Figure 50: The above chart shows the reported amount of time out of water by incoming boaters only.

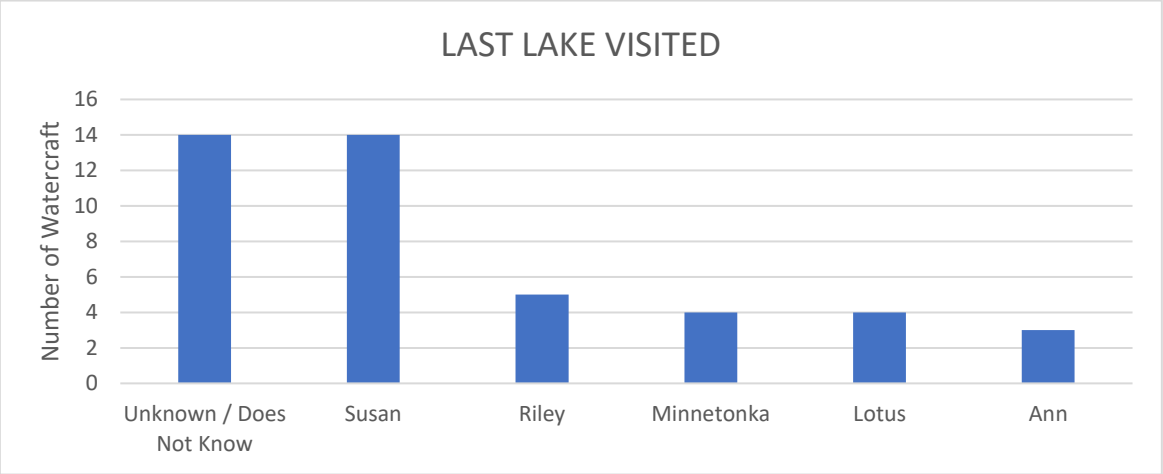


Figure 51: Top responses to last lake visited by boaters entering Lake Susan.

Of the 44 inspections, 14 people reported that Lake Susan was the most recent lake that the watercraft had been in. Over 30% reported lakes other than Susan were visited last, some of which are infested with zebra mussels (Figure 51). All but one watercraft was from Minnesota, the lone out-of-state watercraft was from Wisconsin.

The busiest day of the week for inspectors at Lake Susan were Sunday with a total of 47 inspections. When comparing the time of day that inspections took place, Friday and Sunday afternoons (11am-3:59pm) were the most popular docking times (Figure 52).

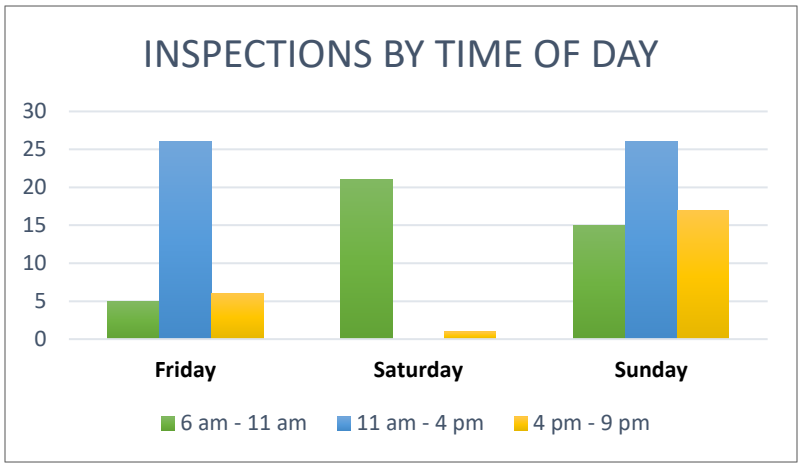


Figure 52: The above chart shows the distribution of inspections by time of day.
Note: Lake Ann was not staffed during the week unless it was a holiday.

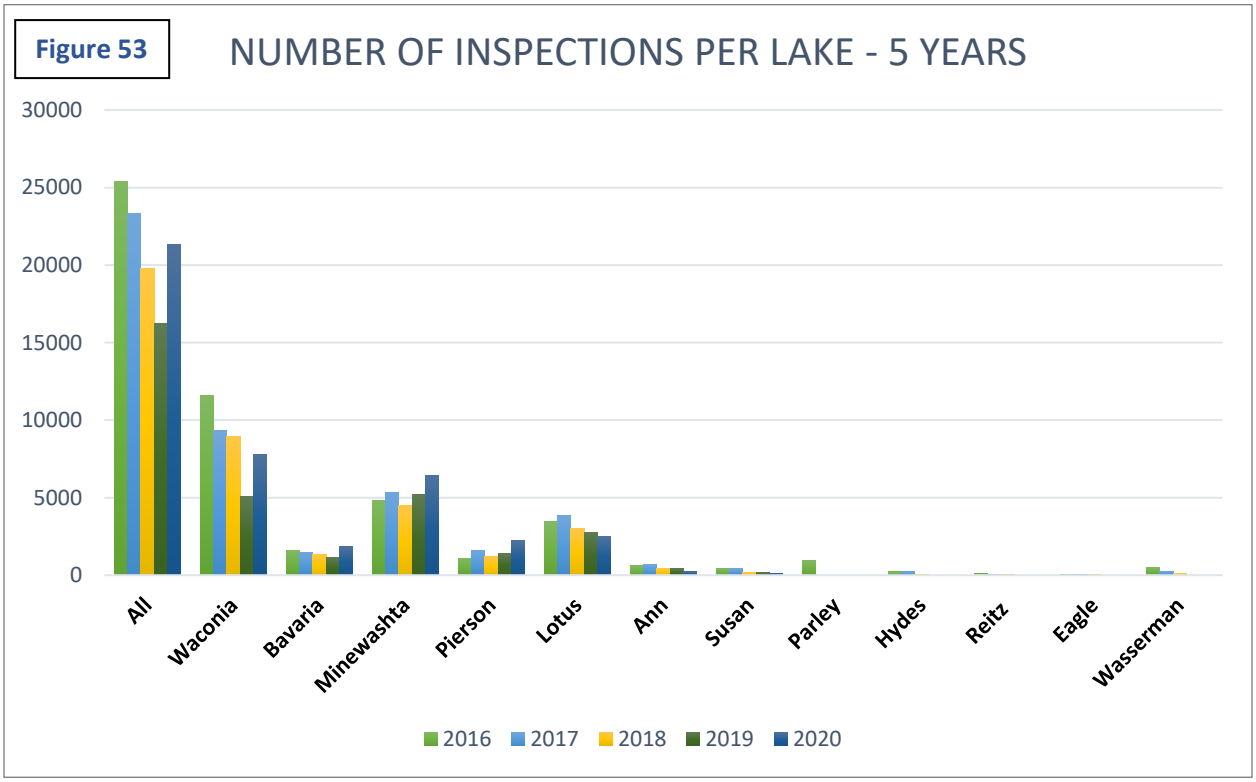
Inspection Findings and Violations

There were 0 total violations at Lake Susan during the 2020 inspections. Though not considered a violation of MN AIS Laws, there were findings during 13 exiting inspections. All of these were plants that were removable by hand (13).

Trends: 2016-2020

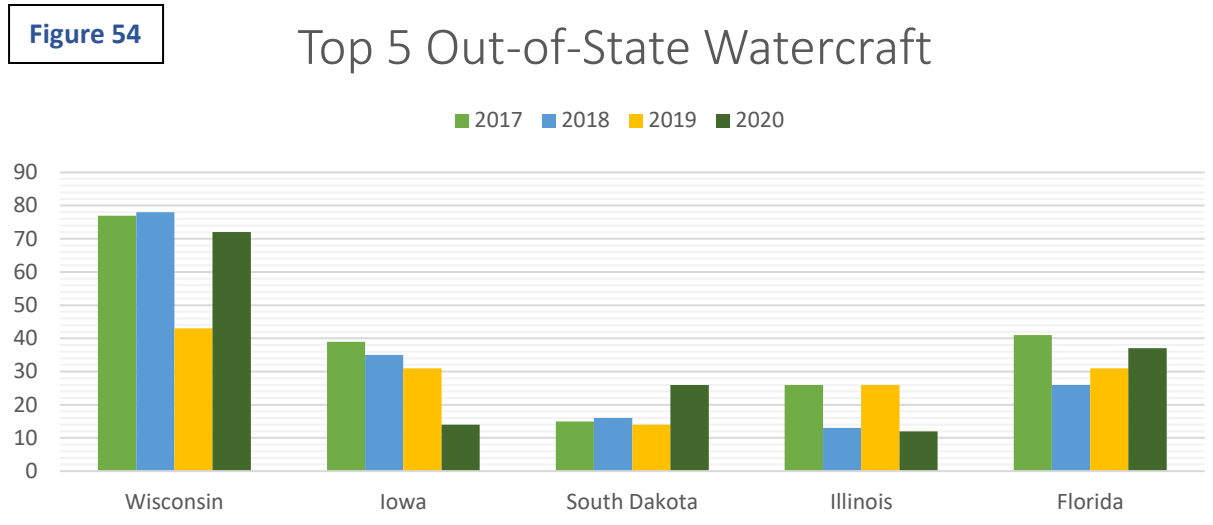
Analyzing data from the past five years allows us to see trends within the inspection program. We can then use these trends to improve the program by allocating the right amount of resources and attention accordingly. Coinciding with most years of data, Lake Waconia received the most inspections ahead of second most inspected Lake Minnewashta (Figure 53).

Figure 53



By comparing all the surveyed traffic at inspected Carver County Lakes, we can track where most of the traffic is coming from, and what is being transported to our lakes. Obviously, the majority of watercrafts are from Minnesota and are traveling mostly around Minnesota Lakes, but there is a small percentage of out-of-state watercrafts and with that comes the risk of new invasive species (Figure 54).

Figure 54



Of all the survey data over the last four years, the main findings on entering inspections have been plants that are removable by hand and standing water. (Figure 55). Total entrance inspection findings of zebra mussels (requiring decontamination and removeable by hand) have increased from 6 findings in 2017 to 16 findings in 2019, which is over a 60% rise.

Figure 55