

# Comfort Lake-Forest Lake Watershed District



## 2021 Watercraft Inspection Program Yearend Report



*Protecting Your Water Resources*

December 9, 2021

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2021 Watercraft Inspection Summary Infographic

## Introduction

The Minnesota Department of Natural Resource's (DNR) Watercraft Inspection Program is a state-wide program that was first created in 1992. From the beginning, the DNR's goal for the program was "To prevent the spread of invasive species within Minnesota through boater education, watercraft inspections and watercraft decontaminations at public water accesses". In 2011, legislation was signed into law that allowed watercraft inspectors to visually and tactilely inspect water related equipment, decontaminate water-related equipment, prohibit access to boaters that refuse inspection or fail to remove contaminants and require watercrafts be decontaminated prior to launching into Minnesota waters. Contaminates are anything that could harbor invasive species or be invasive itself such as plants, animals, mud, and water. While the DNR hires its own watercraft inspectors for the program, most inspectors in the state are hired and paid for by watershed districts, conservation districts, lake associations, lake improvement districts, and many other organizations. In total, organizations across the state performed over 536,000 watercraft inspections in 2021.

To implement the watercraft inspection program in 2021, the Comfort Lake-Forest Lake Watershed District (CLFLWD) entered into a joint powers agreement with the Minnesota Department of Natural Resources (DNR) for authority to conduct boat launch inspections. The District continued its multi-year partnership with Chisago County to hire, train, and oversee inspectors. Through this partnership, Chisago County managed payroll and human resources for inspectors and received reimbursement from the CLFLWD for hours worked within the District. Chisago County inspectors were stationed at public lake accesses within the CLFLWD (which covers portions of Washington and Chisago counties) as well as throughout the remainder of Chisago County. Additionally, the CLFLWD directly hired several of its own inspectors in order to increase presence at boat launches on weekends and holidays.

There are five public lake accesses within CLFLWD, and inspectors were stationed at each one throughout the summer. Public accesses include one at Bone Lake, one at Comfort Lake, and three at Forest Lake: Forest 1 (located on the west basin at Lakeside Park), Forest 2 (located on the middle basin near Willow Point), and Forest 3 (located on the east basin and in some cases referred to as Hagberg). Hours worked by inspectors at each access are largely dependent upon funding and boater traffic. The Forest Lake 1 access has the highest boater traffic and is therefore assigned the most watercraft inspector shifts within the District.

Watercraft at the District's 5 public accesses were inspected by either a Level 1 inspector or a Level 2 inspector. Both Level 1 and Level 2 inspectors are trained by the DNR and perform visual inspections as well as verbal boater surveys. In addition, Level 2 inspectors are qualified to operate a decontamination unit. This involves using a high-pressure, high-heat spraying machine to remove plants, animals such as mussels, and other potential contaminants from watercraft. Chisago County operates a decontamination unit which rotates between 14 high-traffic accesses throughout CLFLWD and Chisago County including Forest 1, Forest 3, Comfort Lake, and Bone Lake. The DNR also operates a decontamination unit which rotates between Forest 1 and other accesses throughout the East Metro. Level 1 inspectors are not permitted to operate the decontamination unit, and instead solely complete the visual inspections of the watercraft and verbal boater surveys.

## Funding and Goals

Funding for the CLFLWD's watercraft inspection program was provided by multiple sources including the Aquatic Invasive Species Prevention Aid Program for both Washington and Chisago counties, local municipalities, and local interest groups such as lake associations and the Lions Club. Figure 1 illustrates financial contributions to the 2021 watercraft inspection program. Note that certain organizations opted to allocate funding to specific waterbodies (e.g. Bone Lake Association's donations allocated to Bone Lake).

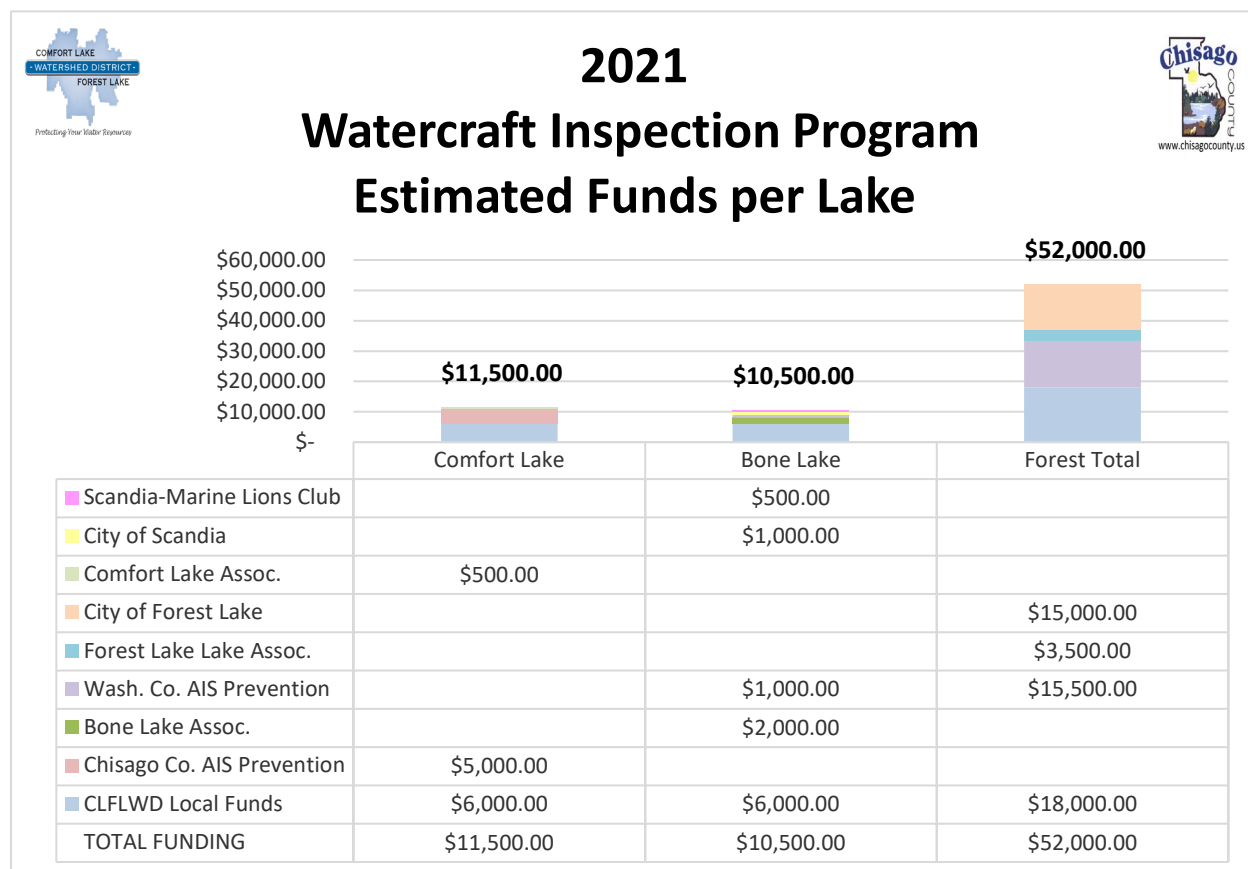


Figure 1. Financial contributions for 2021 watercraft inspection program

In order to set goals and determine hiring needs, estimated financial contributions were converted to inspection hours using an average hourly billing rate. For level 1 and 2 inspectors, the billing rate was \$22/hour. Figure 2 illustrates the estimated number of hours each financial contribution would cover.



## 2021 Watercraft Inspection Program Funded Hours

(Budget converted to hours based on \$22/hr hourly billing rate)

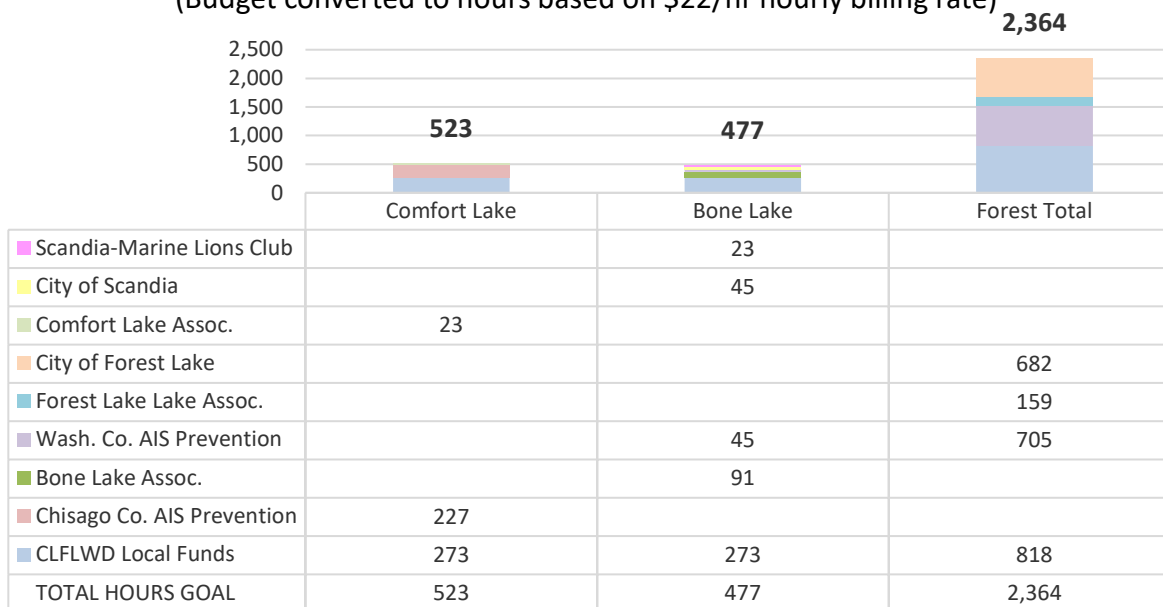


Figure 2. Funded inspection hours for 2021 watercraft inspection program

With the available funding, this year the District was able to hire a total of 11 inspectors to perform watercraft inspections at District accesses. Some inspectors were hired through the Chisago County joint program (5 staff), and others were hired directly by CLFLWD (6 staff).

## Results

### District-Wide

#### Inspection Hours and Scheduling

District-wide, watercraft inspectors performed **7,165 inspections** and worked **3,551 hours** in 2021. Inspectors averaged a rate of **2.02 inspections per hour**. Figure 3 summarizes the total number of inspection hours and inspections completed District-wide over the last eight seasons.

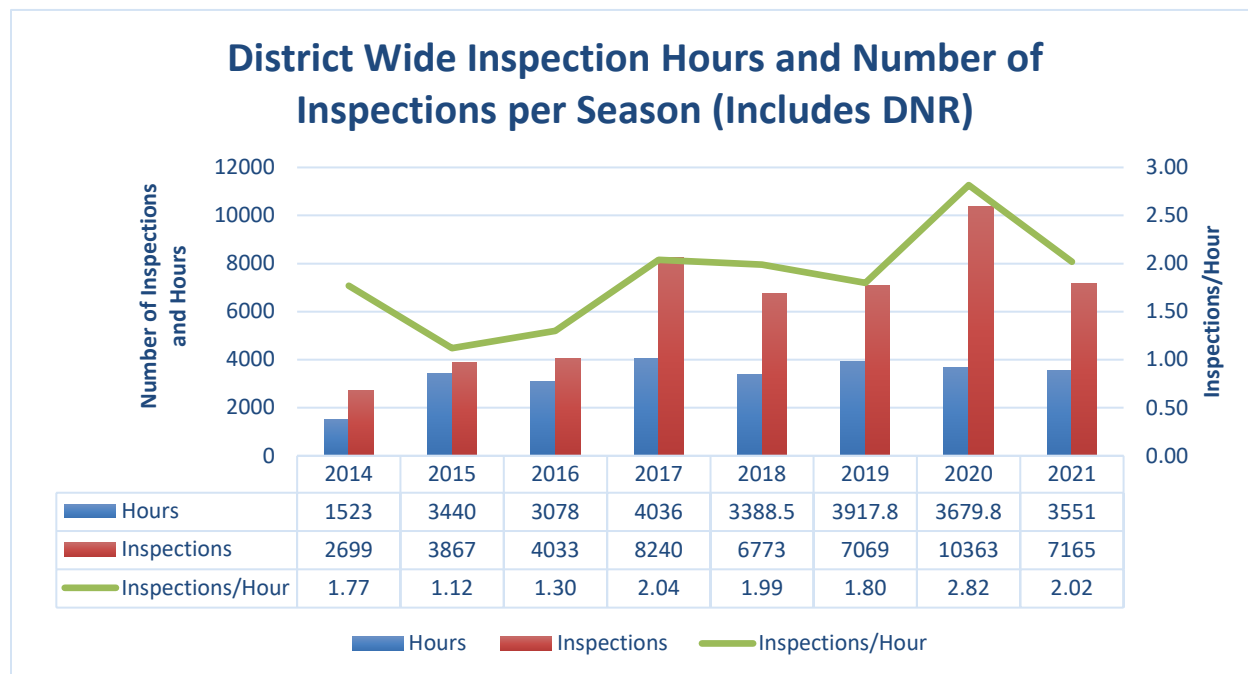


Figure 3. District-wide inspections and hours per season

Despite hiring difficulties, the third greatest number of watercraft inspections were performed in 2021 at 7,165 surveys. Additionally, the inspections per hour rate was the third greatest as well. This inspection rate was in part due to a more targeted approach to scheduling inspectors. With limited staff, scheduling priority focused on stationing inspectors at the busiest accesses first and at the busiest times of day.

As a planning tool to meet inspection hour goals, District staff take the number of funded inspections hours and divide it by the number of weeks in the watercraft inspection season. This calculation generates an average number of hours to work per week to use all funded hours by the end of the season. The goal number of hours per week of 135 was met by week 4 and was sustained until week 17 when many inspectors returned to school and other obligations. The number of inspections, and inspection hours by week throughout the season, as well as the rate of

inspections/hour, and the hours/week goal can be found in Figure 4 . The spikes in inspections/hours that can be seen in the graph are generally attributed to holidays or seasonal changes (e.g. week four includes Memorial Day and week nine includes the Fourth of July).

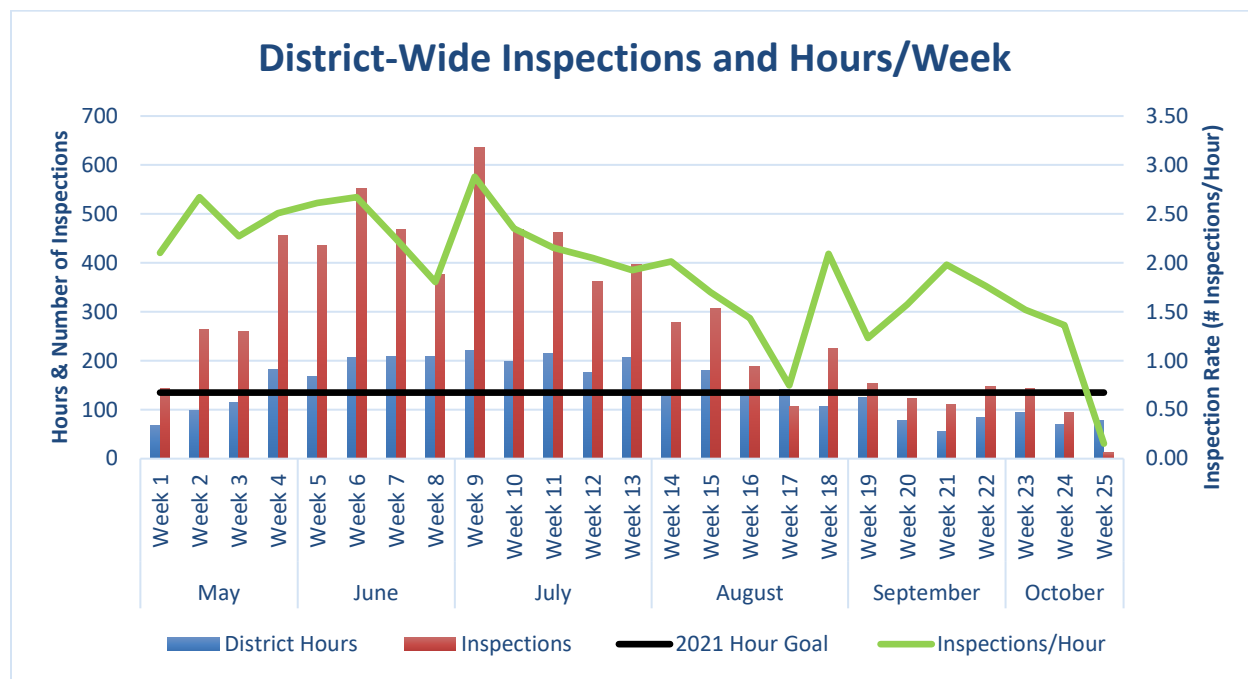


Figure 4. District-wide inspections, hours, rates, and goals

To maximize cost effectiveness and inspection numbers, weekend hours are prioritized for conducting watercraft inspections due to the general higher level of activity. As a result, 60% of hours and 76% of inspections occurred Friday through Sunday. Inspection hours worked during the week (Monday – Thursday) are typically performed by Chisago’s and the DNR’s inspectors. Figure 5 shows the number of inspections and hours per day for the 2021 season.



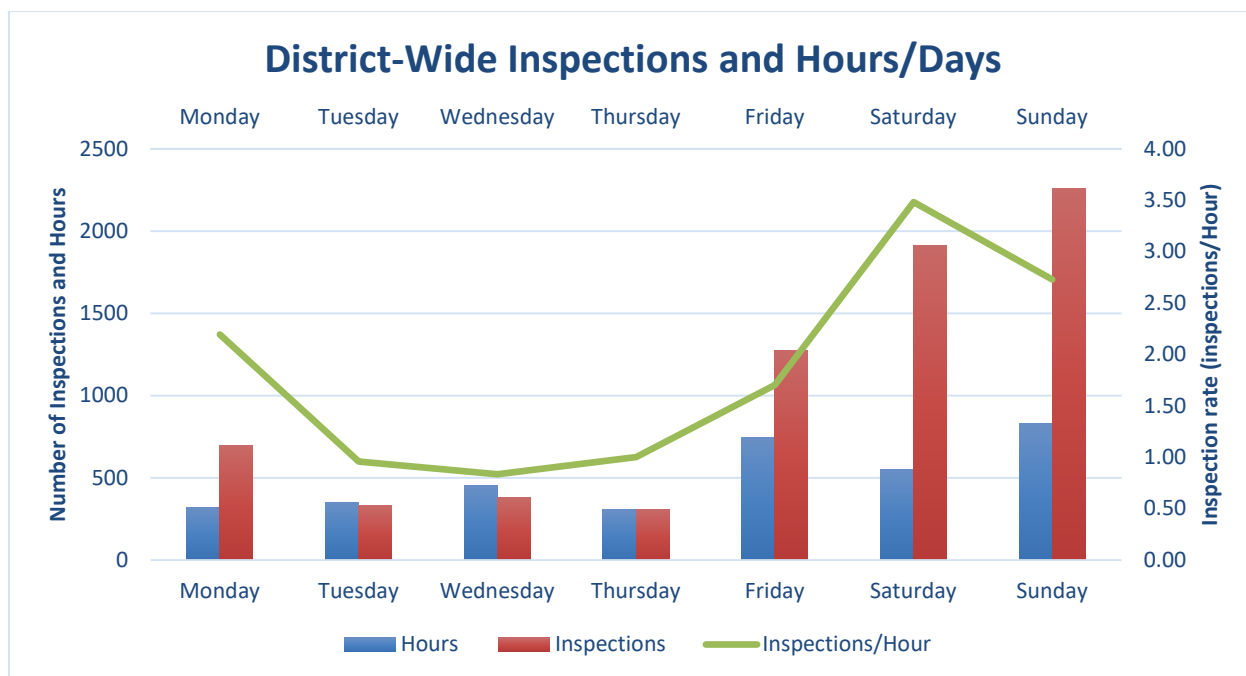


Figure 5. District-wide inspections and hours per day for the 2021 season

## Survey Results

In addition to a watercraft inspector's responsibility to thoroughly inspect watercrafts for aquatic invasive species (AIS) and other contaminants, they are also required to complete an inspection survey for each boat that enters or exits a lake. Completed surveys are uploaded to the DNR's state-wide inspection survey database where program coordinators across the state can view the data. Important information such as number of boats entering and exiting a lake, incoming boat AIS violations, and new AIS infestation risk assessment can be calculated. In 2021, a total of 7,165 watercraft inspection surveys were performed on District lakes. Below are some findings from the inspection survey data. A summary of this information can be found in Figure 6.

- 68 watercrafts arrived at District lakes with contaminants such as plants, animals, mud, or water on their equipment.** This number was 148 in 2020, 122 in 2019, 140 in 2018, 213 in 2017, 41 in 2016 and 39 in 2015. Note that transportation of *any* plants or animals on watercraft, not just invasive species, is prohibited. These watercrafts were cleaned off and/or drained prior to launching. If vegetation or mud could not be removed by hand, watercraft were denied launch.
- 33 watercraft required removal of the bilge drainage plug** upon arriving at District lakes. This number was 83 in 2020, 85 in 2019, 115 in 2018, 115 in 2017, 19 in 2016 and 67 in 2015. After educating the watercraft user on the potential of AIS in their bilge water, bilge plugs were removed from the watercraft and all water was drained prior to the watercraft launching in an area that would not flow into the lake.
- 786 watercraft exited District lakes with contaminants such as plants, animals, mud, or water present.** This number was 1462 in 2020, 867 in 2019, 931 in 2018, 804 in 2017,



187 in 2016 and 260 in 2015. Note that transportation of *any* plants or animals on watercraft, not just invasive species, is prohibited. All contaminants were removed from the watercraft and trailer before departing from the lake.

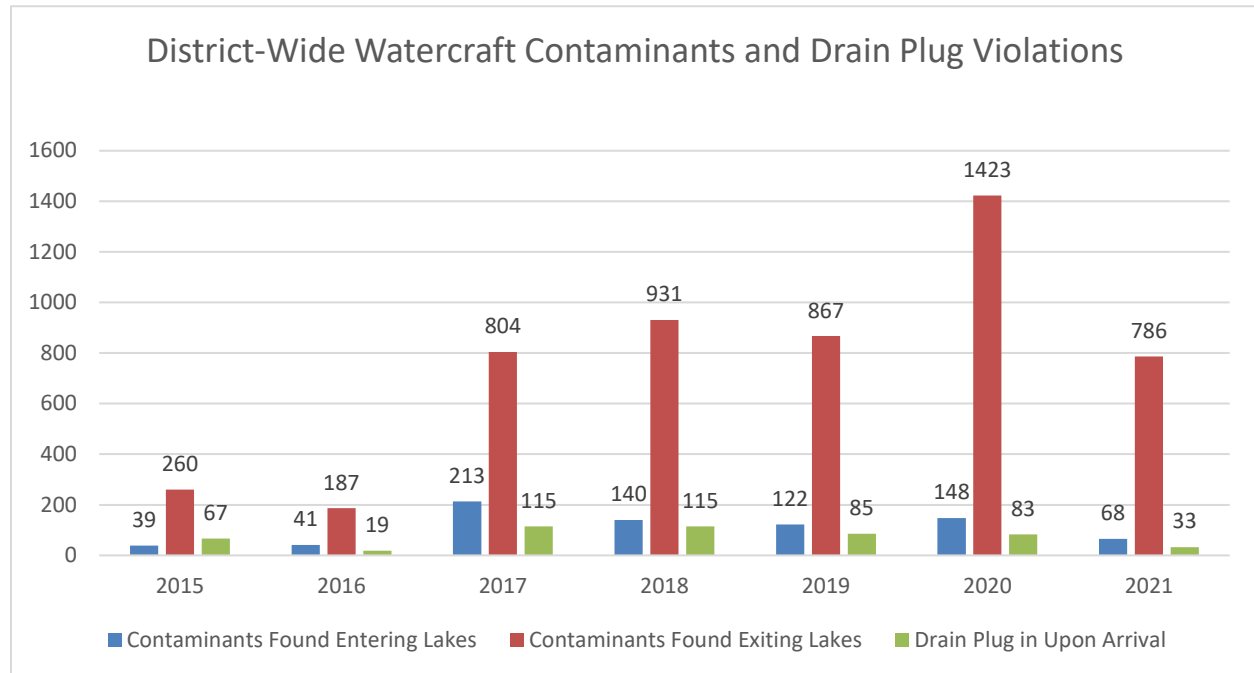


Figure 6. District-wide watercraft contaminants and drain plug violations as reported over the last seven seasons. Contaminants include plants, animals, mud, and water.

Included in the inspection survey are questions regarding the waterbody most likely to be visited next by the boater. Many of the lakes that boaters intend to visit after leaving a District lake do not have all the same AIS present in them. This information stresses the importance of not just preventing AIS from entering District lakes but also preventing AIS from leaving them. Results of this aspect of the survey can be found in Table 1.

Next Lake Boaters Intend to Visit after Leaving a District Lake				
Lakes	Eurasian Watermilfoil	Zebra Mussels	Flowering Rush	Spiny Waterflea
White Bear	EWM	ZM	X	X
St. Croix River	EWM	ZM	X	X
Big Marine	EWM	X	X	X
Chisago	EWM	X	X	X
Bald Eagle	EWM	ZM	FR	X
Mille Lacs	EWM	ZM	X	SW
Green Lake	EWM	X	X	X
Coon Lake	EWM	X	X	X
Minnetonka	EWM	ZM	FR	X
Clear Lake	EWM	X	X	X

Table 1. Top 10 lakes boaters intended to visit after leaving a District lake in 2021

### Risk of New Invasive Species

Unfortunately, many CLFLWD lakes are home to a number of aquatic invasive species such as curly-leaf pondweed, Eurasian watermilfoil, flowering rush, zebra mussels, and several others. Species such as these are a concern to the District as they have the ability to cause ecological, recreational, economic, and physical harm. While the District manages many of the aquatic invasive species present in its lakes, it is still widely known that the most effective management strategy is prevention. There are still many species that are not yet in District lakes and one of the main goals of the CLFLWD watercraft inspection program is to prevent their introduction.

Starry stonewort and the spiny water flea are two examples of aquatic invasive species found in Minnesota that are not yet found in District lakes. Starry stonewort is an invasive algae that forms dense mats in lakes that can impede boating and prevent the establishment of beneficial native plants. Starry stonewort was discovered in Lake Koronis near Paynesville, MN in 2015 and has since been discovered in 17 additional lakes across the state. In 2021, two new lakes were added to the DNR's infested waters list for starry stonewort, Leech Lake in Cass County and Pimushe Lake in Beltrami County.

The spiny water flea is an invasive species of zooplankton which is about the size of a grain of rice that competes with small fish for the same food resource (other zooplankton). The spiny water flea was first discovered in Lake Superior in the early-1980s and has since spread to more than 66 inland lakes in Minnesota including: Mille Lacs Lake, Lake Vermilion, Lake of the Woods, and others.

Both invasive species are thought to be transported primarily by recreational watercraft. Figure 7. contains photos of spiny water flea and starry stonewort.



Figure 7. Spiny water flea (left) and starry stonewort (right). Source: MNDNR

Part of the watercraft inspection survey involves asking the boaters which lake they visited last. The boaters' responses can be cross referenced with records that the DNR keeps of infested waters. This is a way to estimate the risk of these species spreading to District lakes. Note that transportation of water or *any* plants or animals on watercraft, not just invasive species, is prohibited. District watercraft inspectors required that these watercrafts be cleaned off, decontaminated and/or drained prior to launching into the lake.

- **96 boats launching into District lakes came from lakes infested with spiny water flea.** This number was 158 in 2020, 111 in 2019, 104 in 2018, 171 in 2017, and 231 in 2016.
- **48 boats launching into District lakes came from lakes infested with starry stonewort.** This number was 30 in 2020, 22 in 2019, 61 in 2018, 14 in 2017, and 83 in 2016.
- **In 2021, 3 boats came from a lake infested with brittle naiad, 15 came from a lake with New Zealand mudsnail, 105 from a faucet snail infested lake, and 16 from a lake with the VHS virus.**

Number of entering watercrafts that were last in an AIS infested waterbody						
	Comfort Lake	Bone Lake	Forest 1	Forest 2	Forest 3	Grand Total - All Lakes
<b>Starry Stonewort</b>	1	5	32	4	6	48
<b>Spiny Waterflea</b>	9	5	37	12	33	96
<b>Zebra Mussels</b>	34	35	301	47	135	552
<b>Flowering Rush</b>	6	3	99	10	31	149
<b>Brittle Naiad</b>	0	0	3	0	0	3
<b>Grass Carp</b>	8	7	46	9	34	104
<b>Silver Carp</b>	8	7	45	9	34	103
<b>Big Head Carp</b>	8	7	46	9	34	104
<b>New Zealand Mudsnaill</b>	3	1	4	0	7	15
<b>Round Goby</b>	3	1	4	0	7	15
<b>White Perch</b>	3	1	4	1	7	16
<b>VHS</b>	3	1	4	1	7	16
<b>Ruffe</b>	3	1	4	1	7	16
<b>Faucet Snail</b>	5	10	56	14	20	105
<b>EWM</b>	113	115	552	77	260	1117

Table 2. The number of watercrafts entering District lakes that were last in an AIS infested lake. These figures are likely a slight underestimation as a substantial number of inspections did not include enough information to determine which waterbodies boaters were last in.

## Bone Lake

### Inspection Hours and Scheduling

This season, watercraft inspectors performed **542.5 hours of inspections** on Bone Lake which resulted in **661 inspections and associated surveys**. Inspectors averaged **1.22 inspections per hour**. Figure 8. below summarizes the total number of inspection hours and inspections conducted on Bone Lake over the last eight seasons.

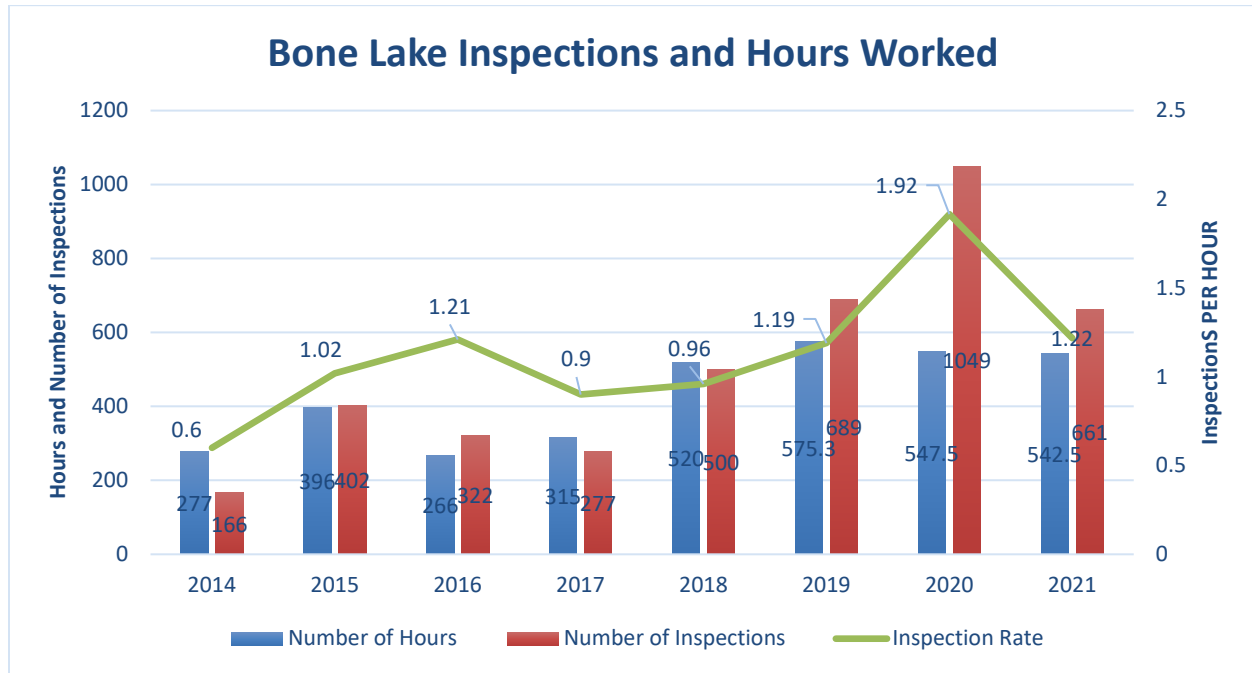


Figure 8. Summary of the total number of inspection hours, number of surveys, and inspection rates for Bone Lake over the last seven seasons.

### Survey Results

A total of 661 surveys were performed on Bone Lake this season. Findings and a summary of the results from the compiled inspection survey data for Bone Lake can be found below and in Figure 9.:

- **2 watercraft arrived at Bone Lake with plants, animals, mud, or water on their watercraft.** This number was 3 in 2020, 7 in 2019, 16 in 2018, 11 in 2017, 1 in 2016 and 4 in 2015. Note that transportation of *any* plants or animals on watercraft, not just invasive species, is prohibited. These watercraft were cleaned off and/or drained prior to launching into Bone Lake.
- **13 watercraft required removal of the bilge drainage plug upon arriving at Bone Lake.** This number was 12 in 2020, 12 in 2019, 8 in 2018, 1 in 2017, 2 in 2016 and 6 in 2015. After educating the watercraft user on the potential of AIS in their bilge water, bilge

plugs were removed from the watercraft and all water was drained prior to the watercraft launching in an area that would not flow into the lake.

- **35 watercraft exited Bone Lake with plants, animals, mud, or water present.** This number was 47 in 2020, 50 in 2019, 70 in 2018, 59 in 2017, 7 in 2016 and 24 in 2015. Note that transportation of *any* plants or animals on watercraft, not just invasive species, is prohibited. All contaminants were removed from the watercraft and trailer before departing from Bone Lake.

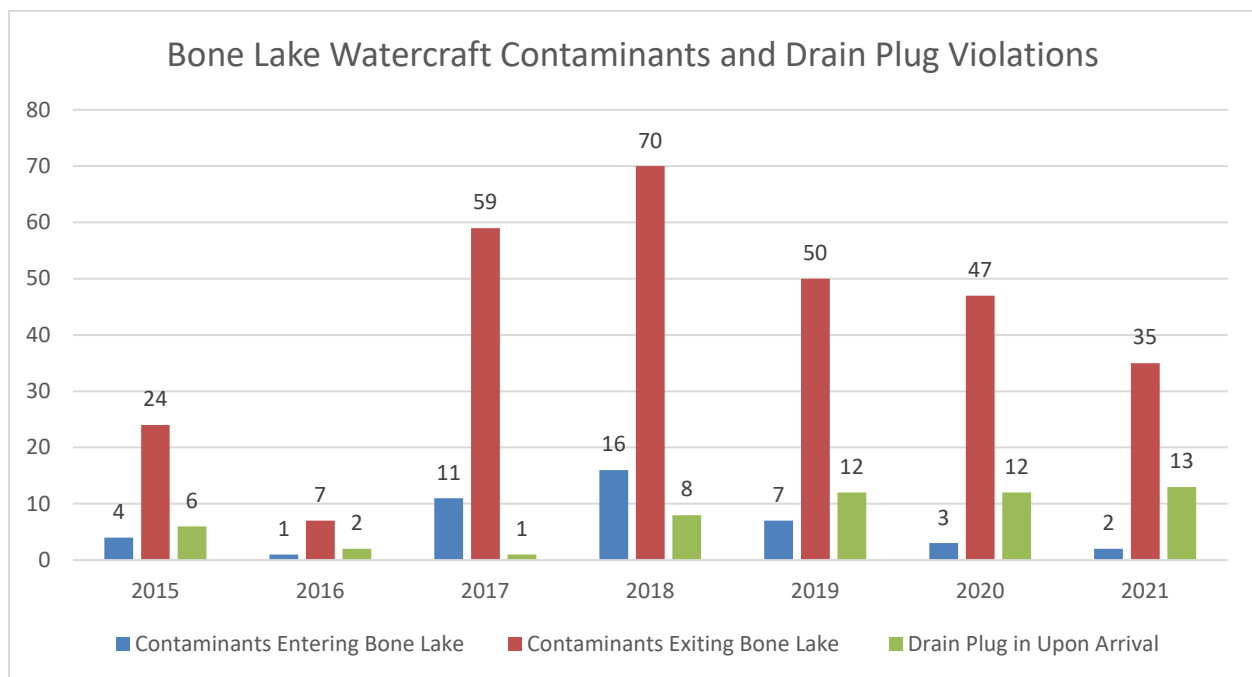


Figure 9. Bone Lake watercraft contaminants (ex. plants, animals, mud, and water) and drain plug violations reported over the last seven seasons.

### Risk of New Invasive Species

Part of the inspection survey involves asking the boaters which lake they visited last. The boaters' responses can be cross referenced with records that the DNR keeps of infested waters. This is a way to estimate the risk of these species spreading to Bone Lake. Note that any watercraft with contaminants such as plants or standing water are required to be decontaminated prior to launch.

- **5 boats launching into Bone Lake came from lakes infested with spiny water flea.** For comparison, this number was 14 in 2020, 7 in 2019, 2 in 2018, 5 in 2017, and 25 in 2016.
- **5 boats launching into Bone Lake came from lakes infested with starry stonewort.** This number was 2 in 2020, 3 in 2019, 3 in 2018, 0 in 2017, and 2 in 2016.

## Forest Lake

### Inspection Hours and Scheduling

This season, CLFLWD watercraft inspectors performed 1,904.5 hours of inspections, and DNR inspectors performed 550 hours, totaling **2,454.5 total hours of inspections on the three Forest Lake public accesses**. During this time, CLFLWD inspected 4,334 watercraft and the DNR inspected 1,417 watercrafts, totaling **5,751 inspections and associated surveys**. Together, CLFLWD and DNR inspectors averaged **2.34 inspections per hour**. A summary of this information is presented in Figure 10. and Tables 3 - 5.

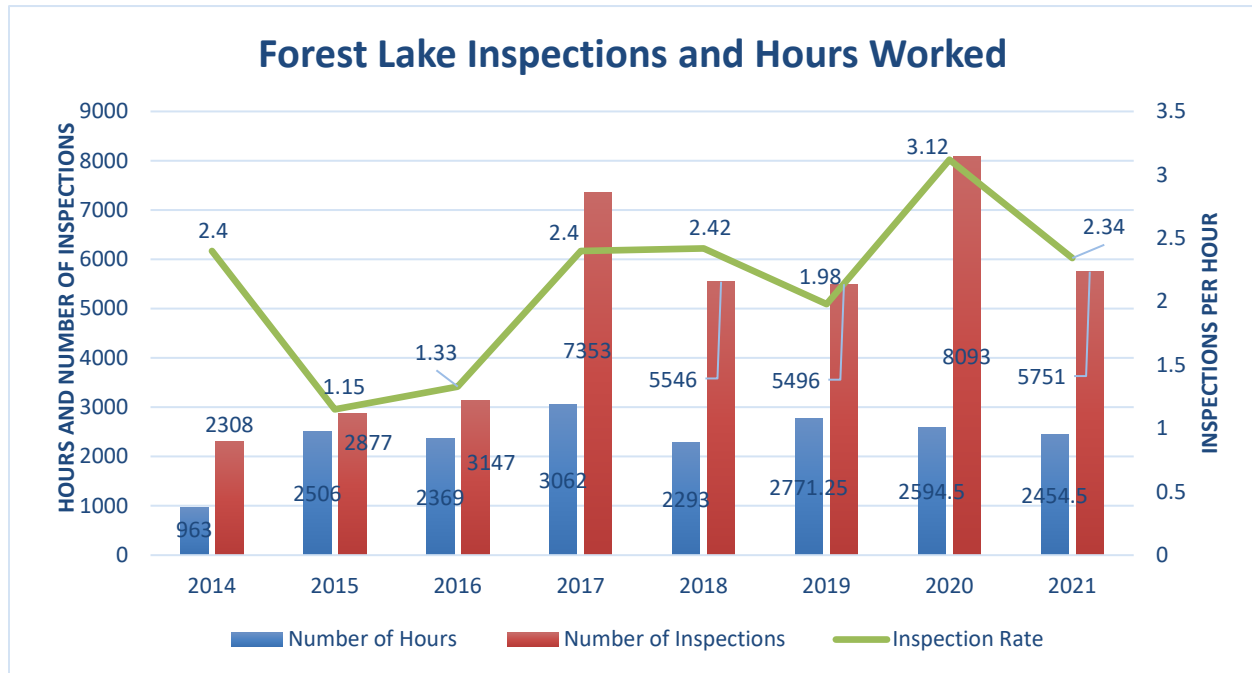


Figure 10. summary of inspections hours, number of surveys, and inspection rates over the last eight seasons at all three Forest Lake public boat launches.

Table 3. Forest Lake inspection hours



	Forest 1 (West or Lakeside Park)	Forest 2 (Middle or Willow Point)	Forest 3 (East or Hagberg)	Total
CLFLWD Inspection Hours	668	484.5	752	1904.5
DNR Inspection Hours	550	-	-	550
<b>Total Inspection Hours</b>	<b>1,218</b>	<b>484.5</b>	<b>752</b>	<b>2454.5</b>

Table 4. Forest Lake number of inspections

	Forest 1 (West or Lakeside Park)	Forest 2 (Middle or Willow Point)	Forest 3 (East or Hagberg)	Total
CLFLWD Inspections	1,971	670	1,693	4,334
DNR Inspections	1,417	0	0	1,417
<b>Total Inspections</b>	<b>3,388</b>	<b>670</b>	<b>1,693</b>	<b>5,751</b>

Table 5. Forest Lake inspection rate (inspections/hour)

	Forest 1 (West or Lakeside Park)	Forest 2 (Middle or Willow Point)	Forest 3 (East or Hagberg)	Average
CLFLWD Inspection Rate	2.95	1.38	2.25	2.19
DNR Inspection Rate	2.58	-	-	3.29
<b>Average Inspection Rate</b>	<b>2.77</b>	<b>1.38</b>	<b>2.25</b>	<b>2.13</b>

## Survey Results

A total of 5,751 surveys were performed on Forest Lake this season. Findings and a summary of the results from the compiled inspection survey data for Forest Lake can be found below and in Figure 11.. Below are some findings from the inspection survey data:

- 61 watercraft arrived at Forest Lake with plants, animals, mud, or water on their watercraft.** This number was 132 in 2020, 87 in 2019, 117 in 2018, 177 in 2017, 32 in 2016, and 32 in 2015. Note that transportation of *any* plants or animals on watercraft, not just invasive species, is prohibited. These watercraft were cleaned off and/or drained prior to launching into Forest Lake. It is against state law to launch a contaminated watercraft at a MN lake, regardless of known current infestations of that lake.
- 131 watercraft required removal of the bilge drainage plug upon arriving at Forest Lake.** This number was 62 in 2020, 65 in 2019, 92 in 2018, 110 in 2017, 15 in 2016, and 54 in 2015. After educating the watercraft user on the potential of AIS (e.g. microscopic zebra mussel larvae) in their bilge water, bilge plugs were removed from the watercraft and all water was drained prior to the watercraft launching in an area that would not flow into the lake.

- **727 watercraft exited Forest Lake with plants, animals, mud, or water present.** This number was 1191 in 2020, 762 in 2019, 817 in 2018, 670 in 2017, 158 in 2016, and 229 in 2015. Note that transportation of *any* plants or animals on watercraft, not just invasive species, is prohibited. All contaminants were removed from the watercraft and trailer before departing from Forest Lake.

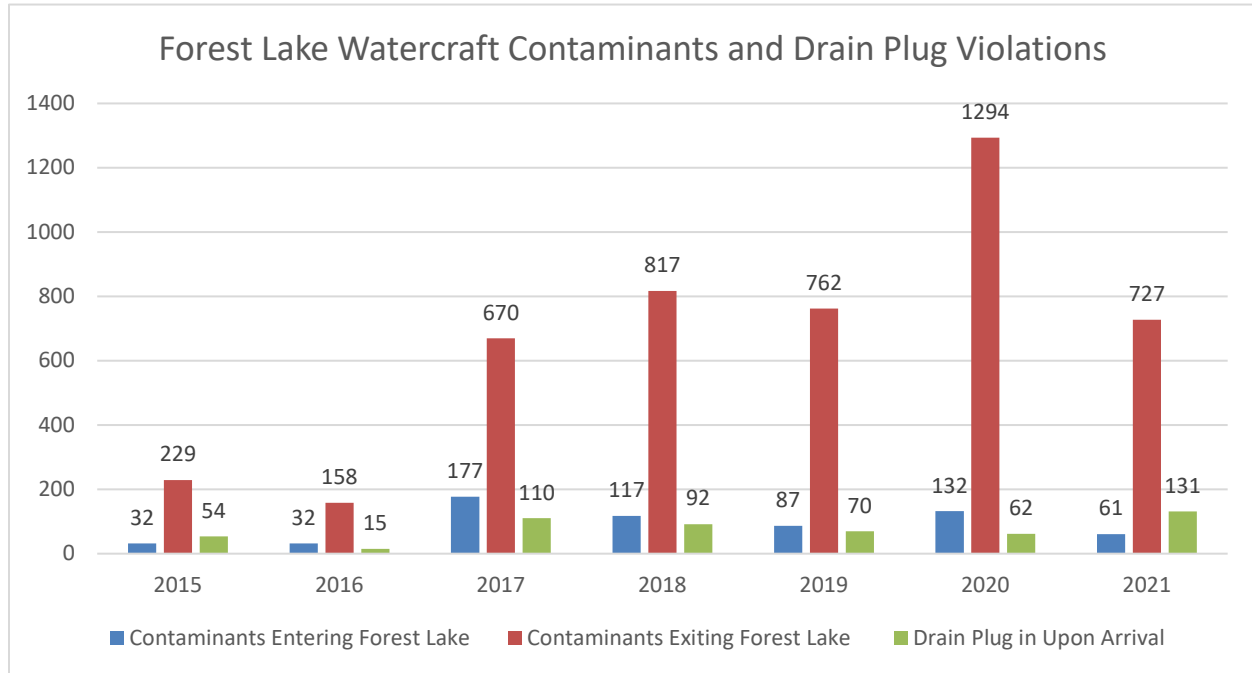


Figure 11. Forest Lake watercraft contaminants and drain plug violations as reported at Forest Lake accesses over the last seven seasons

### Risk of New Invasive Species

Part of the inspection survey involves asking the boaters which lake they visited last. The boaters' responses can be cross referenced with records that the DNR keeps of infested waters. This is a way to estimate the risk of these species spreading to Forest Lake. Note that any watercraft with contaminants such as plants or standing water are required to be decontaminated prior to launch.

- **82 boats launching into Forest Lake came from lakes infested with spiny water flea.** This number was 131 in 2020, 92 in 2019, 101 in 2018, 153 in 2017, and 183 in 2016.
- **42 boats launching into Forest Lake came from lakes infested with starry stonewort.** This number was 27 in 2020, 18 in 2019, 53 in 2018, 12 in 2017 and 74 in 2016.

## Comfort Lake

### Inspection Hours and Scheduling

This summer, watercraft inspectors performed **554 hours of inspections** on Comfort Lake which resulted in **753 inspections and associated surveys**. Inspectors averaged **1.36 inspections per hour**. A summary of this information is presented in Figure 12..

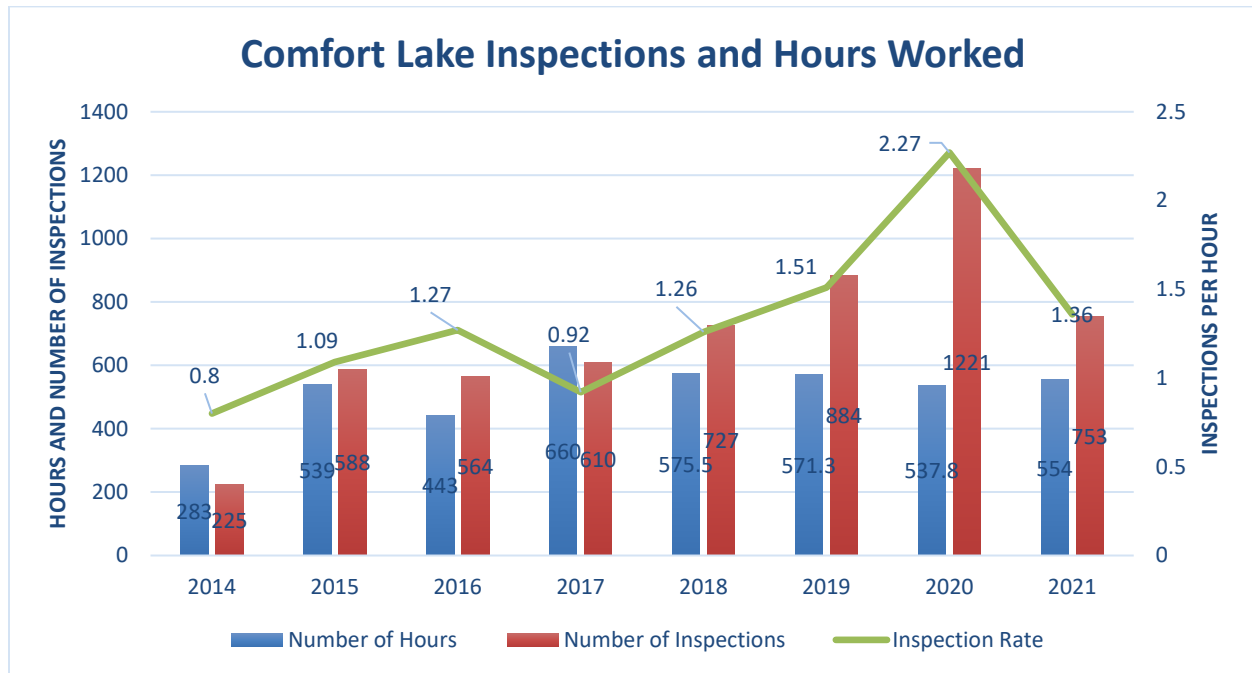


Figure 12. Summary of the inspection hours, number of surveys, and inspection rates completed on Comfort Lake over the last eight seasons.

### Survey Results

A total of 753 surveys were performed on Comfort Lake this season. Findings and a summary of the results from the compiled inspection survey data for Comfort Lake can be found below and in Figure 13..

- **5 watercraft arrived at Comfort Lake with plants, animals, mud, or water on their watercraft.** This number was 13 in 2020, 28 in 2019, 7 in 2018, 25 in 2017, 8 in 2016, and 3 in 2015. Note that transportation of *any* plants or animals on watercraft, not just invasive species, is prohibited. These watercraft were cleaned off and/or drained prior to launching into Comfort Lake.
- **10 watercraft required removal of the bilge drainage plug upon arriving at Comfort Lake.** This number was 9 in 2020, 8 in 2019, 15 in 2018, 4 in 2017, 2 in 2016 and 7 in 2015. After educating the watercraft user on the potential of AIS in their bilge water, bilge plugs were removed from the watercraft and all water was drained prior to the watercraft launching in an area that would not flow into the lake.

- **24 watercraft exited Comfort Lake with plants, animals, mud, or water present.** This number was 82 in 2020, 55 in 2019, 44 in 2018, 75 in 2017, 22 in 2016 and 7 in 2015. Note that transportation of *any* plants or animals on watercraft, not just invasive species, is prohibited. All contaminants were removed from the watercraft and trailer before departing from Comfort Lake.

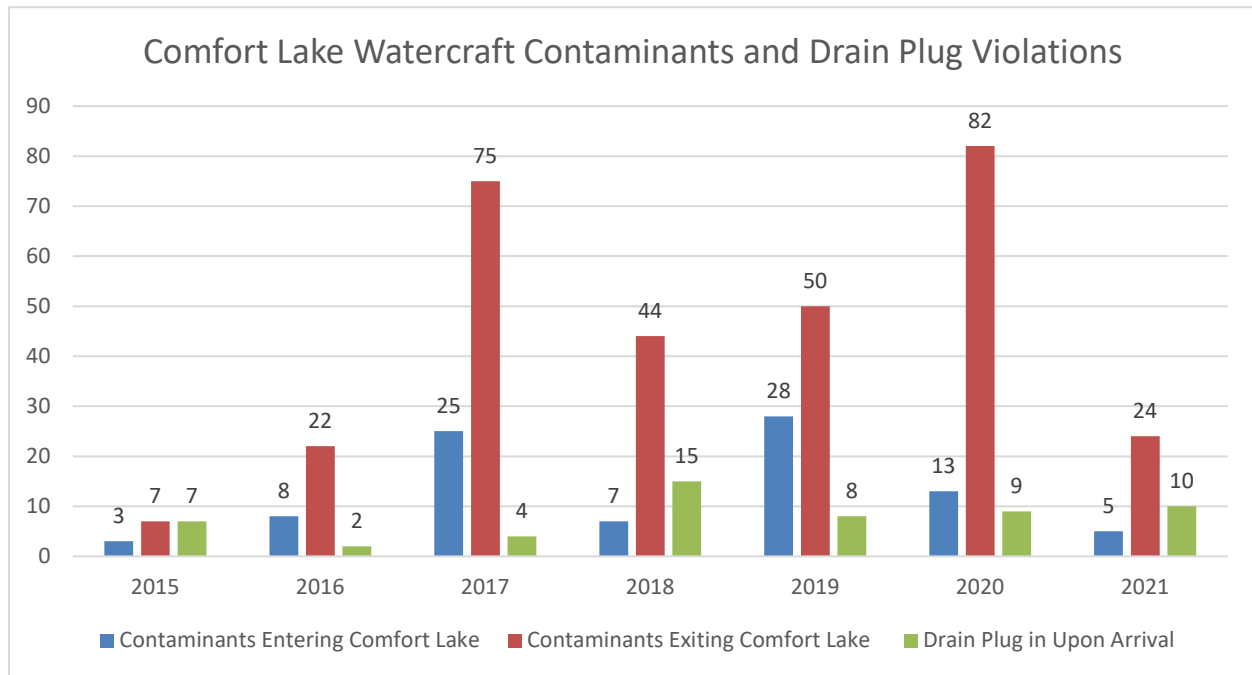


Figure 13. Comfort Lake watercraft contaminants and drain plug violations as reported at Comfort Lake over the last seven seasons

### Risk of New Invasive Species

Part of the inspection survey involves asking the boaters which lake they visited last. The boaters' responses can be cross referenced with records that the DNR keeps of infested waters. This is a way to estimate the risk of these species spreading to Comfort Lake. Note that any watercraft with contaminants such as plants or standing water are required to be decontaminated prior to launch.

- **9 boats launching into Comfort Lake** came from lakes infested with **spiny water flea**. For comparison, this number was 13 in 2020, 12 in 2019, 7 in 2018, 13 in 2017, and 24 in 2016.
- **1 boat launching into Comfort Lake** came from lakes infested with **starry stonewort**. This number was 1 in 2020, 1 in 2019, 5 in 2018, 2 in 2017 and 7 in 2016.

## Discussion and Conclusion

While not as busy as 2020, the 2021 season still ranked the District's third busiest in terms of number of watercraft inspections with 7,165 surveys performed. This number was 10,363 in 2020, the program's busiest year across the state with over 700,000 inspections performed in Minnesota. Regardless of the continued high traffic, the number of incoming violations caught again remained fairly low with only 1.6% of surveys finding contaminants such as water, mud, plant debris, drain plug, etc.. However, exiting violations saw about a 13% increase as 26% of watercrafts leaving had some type of contaminate, majority being plant debris. A likely explanation for this could be the abnormally low water levels across the District. As observed by District staff, lake associations, and community members, low water levels allowed for more sunlight penetration which spurred increased aquatic plant growth. This increased growth combined with shallower navigation to public accesses is likely why watercraft inspectors caught more boats leaving with plant debris this year. To combat this, the District provides its' inspectors with rakes to clear floating plant debris during their downtime. Despite their best attempts to maintain a clean access, specific wind directions at certain public accesses are near impossible to keep clear of plant debris. While exiting violations were high in 2021, it should be noted that all these watercrafts were cleaned before departure from the access.

The biggest challenge faced during the 2021 watercraft inspection season was hiring inspectors. The District has purchased enough equipment to hire eight of its own inspectors for the season. Despite advertising the position more than any other past year through social media, online job boards, handouts at the accesses, yard signs, contacting schools, and various other methods only 6 inspectors were hired. Of these 6 inspectors, only 3 worked the entire season with the other 3 leaving in mid-August for college. Conversations between staff and other organizations managing watercraft inspection programs suggest this issue is not solely the District's to solve as others are struggling as well. Regardless of these difficulties, the District still met hour goals for all accesses. This was thanks to inspector's willingness to work extra shifts and the District's great partnership with Chisago County and the Minnesota Department of Natural Resources, both of which assist with providing watercraft inspections. In anticipation for the 2022 season, District staff will work both internally and with other organizations to develop new strategies for watercraft inspector hiring and retention. Staff will also take extra steps to better incorporate diversity, equity, and inclusion into its hiring process.

In addition to their normal duties, the CLFLWD's, Chisago's, and the Washington Conversation District's inspectors were asked to provide extra education on proper live bait disposal as part of a grant awarded to the District in 2020 by the DNR. Improper live bait disposal has been identified by the DNR as one of the riskier pathways for AIS introduction. Awarded monies were used to create educational bait bucket stickers and bait disposal stations (Figure 14.). Implementation of this grant began late into the 2021 season, which provided limited data on the success of the educational campaign. With all materials created and purchased, this project will be implemented at the very start of the 2022 season.

Another new change this year, the District promoted Steve J., an inspector who had been with the program for several years, to the new position of Lead Watercraft Inspector (Figure 15.). This

position was created to provide additional support and assistance to other inspectors on the weekends. Their additional duties included random check-ins with inspectors, being the weekend contact for questions, supplying extra materials and distributing equipment, diffusing disputes, resolving scheduling conflicts, and many other responsibilities. This new position was crucial for ensuring inspectors had the resources and support needed on the weekends when staff is unavailable. Due to its success in the first-year staff plan to continue with this position moving forward.

Lastly, the CLFLWD's watercraft inspection program would not be possible without the support of the community, local lake associations, and the District's partners. Their generous financial contributions and feedback are greatly appreciated and go a long way to support the program. In 2022, the District will again seek out passionate water stewards for the watercraft inspector positions that will best represent and serve the community to preserve the ecological health and recreational quality of the area's waterbodies.



Figure 14. CLFLWD Inspector (Jim J.) at Forest Lake 2 (middle) with new bait disposal station



Figure 15. Lead Watercraft Inspector (Steve J.)

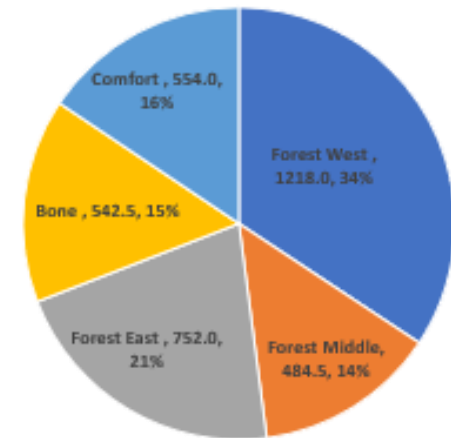


# Comfort Lake—Forest Lake Watershed District

## 2021 Watercraft Inspections

In 2021, CLFLWD and Minnesota DNR inspectors spent a total of **3,551 hours** at landings in the CLFLWD inspecting watercraft and educating boaters. **7,165 inspections** were completed this year.

Inspection Hours At Each Access  
And % Of Total Hours  
(DNR Hours Included)



■ Forest West ■ Forest Middle ■ Forest East ■ Bone ■ Comfort

District Wide Inspection Hours and Number of Inspections per Season (Includes DNR)



- **1.67%** of boaters **entering** the water had **plants, animals, water, mud,** etc. on their boat at the time of inspection. This can be compared to 0.03% in 2020, 1.7% in 2019, 3.8% in 2018, 5.4% in 2017 and 2.4% in 2016.
- **0.81%** of boaters **arriving** at the launch had their **drain plug in** at the time of inspection. This can be compared to 0.01% in 2020, 1.2% in 2019, 3.1% in 2018, 3.8% in 2017 and 3.1% in 2016.
- Inspectors averaged **2.02 inspections per hour**. This can be compared to 2.83 in 2020, 1.8 in 2019, 2.0 in 2018, 2.04 inspections per hour in 2017 and 1.31 inspections per hour in 2016.



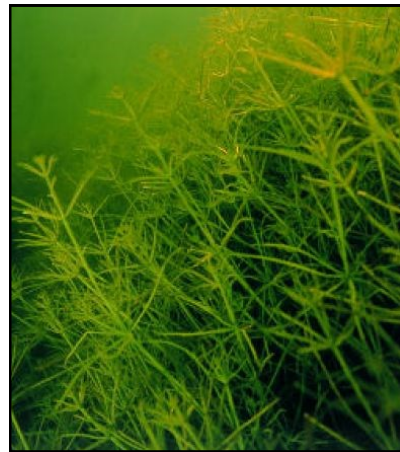


## Inspections were performed on:

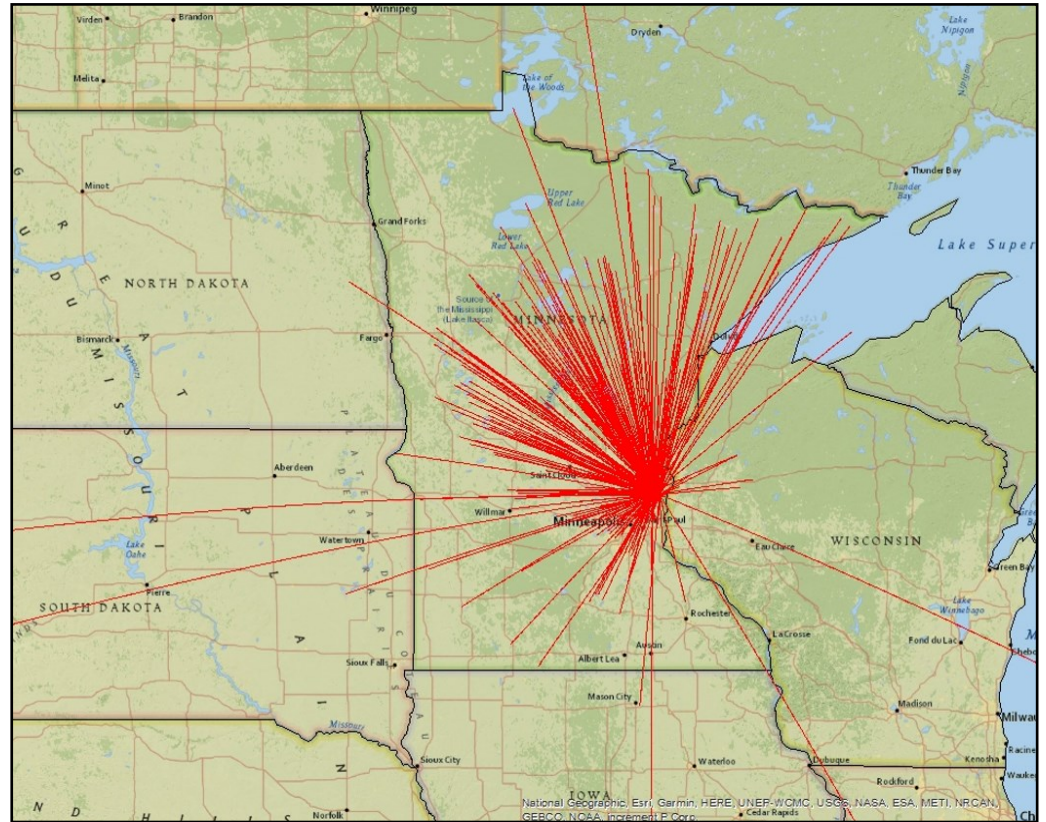
- **96 watercraft that had previously been in spiny water flea-infested lakes.** This number was 158 in 2020, 111 in 2019, 104 in 2018, 171 in 2017, and 231 watercraft in 2016.
- **48 watercraft that had previously been in starry stonewort-infested lakes.** This can be compared to 30 in 2020, 22 in 2019, 61 in 2018, 14 in 2017, and 83 watercraft in 2016.



**Spiny Water Flea**



**Starry Stonewort**



**Above: Flow map showing the lakes that were visited by watercraft before coming to either Forest Lake, Comfort Lake, or Bone Lake. Each line represents at least one boater who traveled from another Minnesota lake into a CLFLWD lake.**