2010 Summary Report of Watercaft Inspections at Lake Minnetonka

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Introduction:

The goal of the Watercraft Inspection Program is to reduce the spread of invasive species into and around the state through inspection and education. To accomplish this goal, 50,000 hours of watercraft inspections were carried out in 2010, as well as working with citizen groups (volunteers) and educate the public at events such as the state fair.

In January of 2008 the MN DNR Invasive Species Unit created a grant program to allow citizen groups to increase the number of hours of inspection at their water accesses. This was done to increase watercraft inspections in the state, work with citizen groups and satisfy requests from citizen groups for more hours of inspections at their accesses.

The Lake Minnetonka Conservation District received a prevention grant from the MN DNR in May of 2010 for 560 hours of inspection time during the 2010 watercraft inspection season with an equal amount of inspection time to be matched by the LMCD. The LMCD also chose to cooperatively hire with the MN DNR for up to an additional 1,778 hours. The contract dates were May 28th through September 6th of 2010. Seven watercraft inspectors were hired for the Lake Minnetonka crew to accomplish the 2,898 hours, which were focused on "peak hours" (Fridays, Saturdays, Sundays and Holidays) at four primary and two secondary accesses, on watercraft entering Lake Minnetonka, and emphasized zebra mussel education.

The inspection process consists of a six-question survey that ensures that boaters are aware of the issues surrounding invasive species and incorporates the inspector walking the boater around the watercraft to show them where they should be looking for invasive species. Survey questions focus on boater knowledge and behavior with information given on the impacts of invasive species and what can be done to prevent their spread.

The data in this report is based on all hours and inspections done at Lake Minnetonka in the 2010 season.

Inspection Results

Watercraft Inspectors worked 2,813 hours at eight Lake Minnetonka public water accesses. During this time 13,884 inspections were completed (table 1). Of the 2,813 hours worked, 2,532 were completed during "peak hours" (Fridays, Saturdays, Sundays and Holidays between May 28th and September 6th) on the six accesses identified by LMCD (table 2). The LMCD had requested that the watercraft inspectors work at the four primary accesses and two of the secondary accesses during contract hours. 96% (13,398 of 13,884) of all inspections were completed during "peak hours". Of the 13,884 inspections completed, 11,359 or 82% were carried out on watercraft entering Lake Minnetonka (table 3).

Table 1. Lake Minnetonka summary of inspections in 2010.

| Lake Name | Number of Boaters/Inspections | Enter/Exit/Linknown | | Insp. per Hour |
|------------|----------------------------------|---------------------|-------|-------------------|
| Minnetonka | 13,884 | 11,359/2,178/347 | 2,813 | 4.93 |

Table 2. Inspections and hours at Lake Minnetonka primary and secondary accesses

during peak hours (Fridays, Saturdays, Sundays and Holidays).

| Access Name | Number of Boaters/Inspections | Hours | Inspections per Hour |
|-----------------------|----------------------------------|--------|-------------------------|
| HENDRICKSON/N ARM PWA | 1,870 | 464. | 4.03 |
| SPRING PK PWA | 1,894 | 449 | 4.22 |
| GRAYS BAY CITY PWA | 4,559 | 444 | 10.27 |
| MAXWELL BAY | 3,113 | 463. | 6.73 |
| WAYZATA BAY | 840 | 358 | 2.35 |
| CARSON'S BAY | 1,117 | 359. | 3.11 |
| Totals: | 13,393 | 2,538. | 5.28 |

Table 3.Peak and Non Peak Entering Watercraft on Lake Minnetonka per Hour from 2001-2010.

| Year | Entering Watercraft Inspected | Hours of Inspection on | Total Entering Watercraft | |
|------|-------------------------------|---------------------------|---------------------------|--|
| | per Hour (both Peak and Non- | Minnetonka (both Peak and | Inspected (both Peak and | |
| | Peak) | Non-Peak) | Non-peak) | |
| 2001 | 2.04 | 1,003 | 1,342 | |
| 2002 | 1.93 | 983 | 2,695 | |
| 2003 | 1.97 | 1,871 | 4,920 | |
| 2004 | 2.29 | 2,244 | 5,266 7,693 | |
| 2005 | 3.56 | 2,412 | 7,693 | |
| 2006 | 1.41 | 3,045 | 4,285 | |
| 2007 | 4.67 | 2,105 | 9,835 | |
| 2008 | 3.35 | 3,342 | 11,265 | |
| 2009 | 3.79 | 3,560 | 13,494 | |
| 2010 | 4.04 | 2,813 | 11,359 | |

Out of the 13,884 watercraft inspected at Lake Minnetonka 1,094 had attached vegetation at the time of inspection. The number of watercraft exiting with vegetation attached was the highest, seven hundred and eighty six, and entering with vegetation was three hundred and eight, there were also fourteen watercraft with vegetation which were not identified as entering or exiting.

The three hundred and eight boaters who came to the access with attached vegetation (2.7% of all entering watercraft) were inspected prior to entering the water and asked to remove any

vegetation prior to putting their watercraft into Lake Minnetonka. None of the watercraft were found to have zebra mussels.

The following information has been provided as a summary of the inspections done at Lake Minnetonka in the 2010 season. Information we gather helps us understand risks involved, for example boaters coming from waters infested with zebra mussels are more likely to transport zebra mussels than those coming from non infested waterbodies.

The surveys done during the inspection process found that 586 boaters out of 13,884 (or 4.2%) inspections completed had come to Lake Minnetonka from another waterbody in Minnesota known to be infested with zebra mussels. The majority of the watercraft were coming from the Mississippi River (table 4).

Table 4. Watercraft entering or exiting Lake Minnetonka that last used zebra mussel infested waters.

| Last Waterbody | Number of watercraft |
|---------------------|----------------------|
| Carlos Lake | 8 |
| Darling Lake | 2 |
| Geneva Lake | 1 |
| Mille Lacs Lake | 144 |
| Mississippi River | 179 |
| Ossawinnamakee Lake | 4 |
| Pelican Lake | 28 |
| Pike Lake | 2 |
| Prior Lake | 75 |
| St. Croix River | 112 |
| St. Louis River | 3 |
| Superior | 21 |
| Victoria Lake | 5 |
| Zumbro | 2 |

The surveys found that about 2% of the boaters who were inspected at Lake Minnetonka had come from another state. These boats likely represent another high-risk group (table 5).

Table 5. Watercraft from states other than MN who used Lake Minnetonka.

| Out of State Boaters | | | |
|----------------------|----------------------|--|--|
| State | Number of watercraft | | |
| | 65 | | |
| AK | 1 | | |
| AZ | 7 | | |
| CA | 2 | | |
| СО | 2 | | |
| FL | 12 | | |
| GA | 2 | | |
| IA | 33 | | |
| ID | 1 | | |
| IL | 25 | | |
| IN | 3 | | |
| KS | 3 | | |
| Manitoba | 2 | | |
| MI | 6 | | |
| МО | 2 | | |
| NC | 1 | | |
| ND | 8 | | |
| NE | 7 | | |
| NH | 1 | | |
| NM | 1 | | |
| NV | 1 | | |
| ОН | 4 | | |
| SD | 13 | | |
| TN | 1 | | |
| TX | 7 | | |
| VA | 6 | | |
| VA WA | 1 | | |
| WI | 79 | | |
| WY | 1 | | |

We use a decal with the current year on it to track if a boater has been inspected in the current year. Boaters who have been inspected in the current year are more likely to be educated about

invasive species and how to prevent their spread. Below is the number of inspections broken down by whether they had a current year decal and would be a repeat, had a previous year's decal and had talked to us in past years, or had never spoken to us before (table 6).

Table 6. Decal summary at Lake Minnetonka, comparison from 2005 to 2010

| Year | Inspections | Incoming | Outgoing | Curr Yr Dec | Prev. Yr decal | no decal |
|------|-------------|----------|----------|-------------|----------------|-------------|
| 2010 | 13,884 | 11,359 | 2,178 | 7,231(52%) | 4,205(30%) | 2,448(15%) |
| 2009 | 16,284 | 13,843 | 2,118 | 9,140(56%) | 4,430(27%) | 2,714(16%) |
| 2008 | 13,573 | 11,265 | 2,056 | 7,163(53%) | 3,434(25%) | 2,348(17%) |
| 2007 | 13,733 | 9,835 | 3,766 | 7,309(53%) | 3,705(27%) | 2,600 (19%) |
| 2006 | 8,010 | 4,285 | 3,725 | 3,105(39%) | 2,442(30%) | 2,301 (29%) |
| 2005 | 14,863 | 8,585 | 6,278 | 8,407(57%) | 3,650(25%) | 2,821(19%) |

We have data for 13,884 boaters who were asked if they are familiar with invasive species, 211 (or 1.5%) of them were not familiar with invasive species. When asked if they were familiar with Eurasian water milfoil 238 out of 13,884 (or 1.7%) said they were not familiar. We also asked boaters if they were familiar with zebra mussels and the problems they cause and 470 out of 13,884 or (3.4%) of boaters said they were not familiar with zebra mussels. When asked if they were familiar with the laws regarding the transport of invasive species 757 (or 5.5%) said they were not familiar with these laws.

Discussion:

Our goal for the 2010 season was to ensure that a higher percentage of hours were completed during peak hours at peak accesses. We accomplished 2,532 (or 87%) of the requested 2,898 peak hours. The number of inspections done on entering watercraft remained very high at 82% and the rate of awareness about invasive species also remains high at 98.5%.

In July, 2010, zebra mussels were discovered in Lake Minnetonka.. Due to the the zebra mussel infestation, the Watercraft Inspection Program will be re-evaluating how the DNR will approach inspections for 2011 including the number of hours and how they are distributed. Changes may include prioritizing inspection of outgoing watercraft instead of incoming watercraft and shifting hours away from the Wayzata and Carson's Bay accesses to Grays and Maxwell Bay accesses. We recommend that the DNR and LMCD staff meet in January to discuss options and plans for 2011.

As in past years the watercraft inspection program will be available to conduct volunteer training sessions to anyone who is willing to do inspections. The RFP for prevention grants (watercraft inspections) will be available in mid January and we would encourage the LMCD and LMA to apply for this grant program.