

## 2018 AQUATIC INVASIVE SPECIES (AIS) PREVENTION PLAN

Date	Name	Comments	Staff Comments	#
11/27/17	Mike O'Brien	Those who boats/trailers have been found to be contaminated and sent to decontamination centers-are they charged for this decontamination process? If not - why? If so how much? Is the amount of funding designated to individual lakes for inspections going to remain the same?	<p>Thank you for your comments. Crow Wing County has operated a free permanent watercraft decontamination station in Crosslake (located at the Joint Maintenance Facility on hwy 3) since 2015. There are also many other free decontamination stations located within and surrounding Crow Wing County including Ruth Lake, Breezy Point, Corps of Engineers Gull Lake recreation area, and others.</p> <p>The amount of money allocated to staff public access landings with DNR trained Level 1 watercraft inspectors in 2017 was \$296,979. The proposal for 2018's budget is \$305,000. That's an increase of \$8,021 to support watercraft inspections.</p>	1
11/29/17	David Slipy	<p>As a board member from Pelican Lakes Association and the person in charge of supervising our inspectors I can say our only concern with the 2018 plan for Pelican Lake is the number of hours assigned to the City ramp. Because of a problem my inspectors had in 2016 and much of 2017 inspections at Breezy Point resort were logged as being at the City ramp. We had no code for the resort and so used the City ramp code as being the closest.</p> <p>My personal experience as a volunteer inspector, and my paid inspectors concur, is that the resort is the busiest ramp, Jones Bay is second, and actually the City ramp probably has no more traffic than Halvorson Bay.</p> <p>It would be a terrible waste of resources to assign 520 hours of inspection time to the City ramp rather than Jones Bay.</p> <p>Thank you for the opportunity to comment as the official representative of Pelican Lakes Association.</p>	<p>Thank you for your comments. Although Crow Wing County was able to correct for the discrepancies you describe in your comments concerning the "City Ramp" on Pelican Lake in 2017, we did not correct for discrepancies in 2016, which may have affected the inspections per-hour data. Therefore, we will decrease the "City Ramp" hours from 520 to 300 hours and increase the "Jones Bay" landing at Pelican Lake from 300 to 520 hours of inspections.</p>	2
12/1/17	Dan Myers	<p>Please budget 2018 AIS prevention dollars for investment in cost saving equipment that empowers boaters to clean-drain-dry-dispose at a launch. Waterless cleaning stations could be 7+ year installed solution at a boat launch that could augment inspectors and decontamination programs and present long term savings and empower day boaters to take AIS prevention actions. Here is a link to the proposed prevention plan: <a href="https://crowwing.us/211/Environmental">https://crowwing.us/211/Environmental</a> Here is an overview of the budget: <a href="https://crowwing.us/DocumentCenter/View/14242">https://crowwing.us/DocumentCenter/View/14242</a> Thanks so much for your interest in solutions that empower the public to take actions to prevent the spread of AIS and provide cost effective solutions that prevent the spread of aquatic invasive species. Here is a link to our <a href="#">2017 Case Study</a> featuring our pilot outcomes and</p>	<p>Thank you for your comments. Crow Wing County financially invests in a number of different education and outreach efforts that we believe helps to prevent AIS spread. We provide watercraft inspections. We perform the most inspection hours at the most public access landings of any county in the region. Surveys have shown, including one conducted by the Mississippi Headwaters Board (MHB) in 2017, that the number one place boaters receive</p>	3

## 2018 AQUATIC INVASIVE SPECIES (AIS) PREVENTION PLAN

Date	Name	Comments	Staff Comments	#
		<p>overview of the My CD3 Station launch analytics. We have also developed new instructional videos for CD3 Waterless Cleaning Station on our website and youtube page: CD3 a Cruiser/Ski Boat - <a href="https://youtu.be/7776_VXhTLo">https://youtu.be/7776_VXhTLo</a> CD3 a Fishing Boat - <a href="https://youtu.be/kzr-3khKDd0">https://youtu.be/kzr-3khKDd0</a> CD3 a Pontoon - <a href="https://youtu.be/1le-FDNvbF8">https://youtu.be/1le-FDNvbF8</a></p>	<p>helpful information about AIS prevention is watercraft inspectors and volunteers at public access landings. Crow Wing County invests in education and outreach, particularly social / digital media. With this platform, we can reach millions of people who frequently use Minnesota water resources. In addition, Crow Wing County continues to promote behavioral changes by complying with Minnesota State law (see MN Statute 477A.19 and 84D) through the use and promotion of decontamination stations. Decontamination stations have the benefit of inspector interaction plus specialized equipment and high water temperatures that ensures AIS spread is minimized. There are many free decontamination stations available at convenient hours in Crow Wing County.</p>	
12/11/17	Victor Kreuziger	<p>Spending any more tax dollars to fight the spread of AIS is a fool's errand. Spending money as proposed in the 2018 Plan will NOT stop the spread of AIS. Too much money has already been spent on prevention, and where is the proof that the efforts accomplished anything? To the contrary, Clamshell Lake is living proof that, in spite of valiant efforts by well intending access monitors, their efforts did NOT prevent AIS entering the lake.</p> <p>If lake associations want to have their members volunteer their time to monitor lake accesses, that's fine, as long as it is a voluntary effort and at no cost to the tax payer.</p> <p>Money ear marked for "education", in the 2018 plan, is nonsense. Anyone living on a lake, or using a lake access, who is not already thoroughly educated in the threat and consequences of AIS, has to be living under a rock. More money will not help! Besides, it is not the lake association members who are the guilty ones, but rather the in-and-outers who use the lake access for a day.</p> <p>Likewise, spending tax payer's dollars to fund and support decontamination facilities is a bad idea. The Cost-to-Results comparison, doesn't justify this "feel-good" effort. Consider the expense to set up the facility, and then consider how few people use the service, recognizing the huge numbers of boaters who "don't want to be bothered" or spend the inconvenient time to use the service.</p> <p>The ONLY way the county can make an impact on the AIS problem is to help legislators establish a heavy legal consequence for anyone found violating the existing AIS laws. As I have urged in the past, anyone found in violation of the AIS laws should forfeit their BOAT, MOTOR, TRAILER, and TOWING VEHICLE. Having just one violator experience that consequence, the word would spread like wild fire</p>	<p>Thank you for your comments. States that have implemented education and inspection programs have significantly slowed or even stopped the spread of AIS. Even if we only slow the spread of AIS, each year they are contained could save citizens tens to hundreds of millions of dollars of taxpayer money. Also, preventing the spread of AIS will protect waters, native wildlife, and fish for many more years while ongoing research develops tools to control these species, particularly at the University of Minnesota Aquatic Invasive Species Research Center (MAISRC).</p> <p>Concerning accomplishments of Crow Wing County's AIS program, as the 2017 Mississippi Headwaters Board (MHB) survey clearly demonstrates, 71% of respondents indicated that they feel AIS prevention is personally important to them. And, 68% of respondents indicated that the education they received (via inspections, signs, etc.) inspired them to use AIS prevention</p>	4

## 2018 AQUATIC INVASIVE SPECIES (AIS) PREVENTION PLAN

Date	Name	Comments	Staff Comments	#
		<p>through out the state and surrounding territory. One had better believe that that punishment would do the trick - and in a quick hurry. And there is no monetary cost to the tax payer. Actually, the mere passage of such a consequential law, and the publication of it, would probably scare would-be violators into submission to the AIS laws. Anything less would be a mere nuisance to a would-be violator.</p> <p>Loss of the boat, motor, trailer, and towing vehicle, is a miniscule price to pay compared to the “forever” loss that the lake will experience, and of those who have expensive properties lining the shoreline. The tax payers' loss will be huge in fighting AIS once introduced into a lake. Simply throwing money at the AIS <u>prevention</u> effort will result in the usual little-or-no-return on the taxpayers' investment.</p> <p style="text-align: center;">Vic Kreuziger Clamshell Lake Assn.</p>	<p>practices in the future. We also know from watercraft inspection surveys (approximately 39,000 in 2017 in Crow Wing County) that 98% of watercraft users are AIS law compliant upon entering / leaving a landing. In part because of the County's efforts to promote awareness of AIS and the need to prevent its spread, folks who recreate on Minnesota's waters are spreading the message about doing the right thing for clean, healthier water.</p> <p>Concerning AIS as a voluntary effort, AIS awareness and prevention is not just for employees of the State of Minnesota or local government units (LGUs) who receive state AIS aid monies to promote. Right now, anyone at any time can get involved. Here are some simple and practical way folks can get involved on a voluntary basis:</p> <ul style="list-style-type: none"> <li>• Clean, drain, and dry watercraft every time you leave the water. See: <a href="http://www.dnr.state.mn.us/invasives/prevent_spread_watercraft.html">http://www.dnr.state.mn.us/invasives/prevent_spread_watercraft.html</a></li> <li>• Report new infestations to the Minnesota DNR. See: <a href="http://www.dnr.state.mn.us/invasives/ais/cont_acts.html">http://www.dnr.state.mn.us/invasives/ais/cont_acts.html</a></li> <li>• Print out any number of AIS outreach materials here: <a href="http://www.dnr.state.mn.us/invasives/ais/outreach.html">http://www.dnr.state.mn.us/invasives/ais/outreach.html</a></li> <li>• Become a trained AIS volunteer. More information here: <a href="http://www.dnr.state.mn.us/invasives/ais_volunteer.html">http://www.dnr.state.mn.us/invasives/ais_volunteer.html</a></li> <li>• Become a trained, certified AIS detector through the University of Minnesota's "AIS</li> </ul>	

## 2018 AQUATIC INVASIVE SPECIES (AIS) PREVENTION PLAN

Date	Name	Comments	Staff Comments	#
			<p>Detector” program (registration fees may apply). More information here:  <a href="http://www.dnr.state.mn.us/invasives/ais_volunteer.html">http://www.dnr.state.mn.us/invasives/ais_volunteer.html</a></p> <ul style="list-style-type: none"> <li>Join your local lake association or conservation group. There are many in Crow Wing County. See:  <a href="https://crowwing.us/BusinessDirectoryII.aspx?lngBusinessCategoryID=22">https://crowwing.us/BusinessDirectoryII.aspx?lngBusinessCategoryID=22</a></li> </ul> <p>Concerning legal consequences as it relates to MN State AIS laws, Minnesota Statute 477A.19 and 84D principally dictates law concerning AIS. Crow Wing County is required to comply with state law in preventing the introduction and/or spread of aquatic invasive species. All citizens are encouraged to contact their local and state policy makers concerning changes to AIS law. For contact information about contacting your state legislature, see this link:  <a href="https://www.gis.leg.mn/iMaps/districts/">https://www.gis.leg.mn/iMaps/districts/</a></p>	
12/11/17	Phillip Rollins	<p>We appreciate the difficult task of allocating the state funds for inspectors on specific lakes and accesses and support the data driven method you are using. We would expect the number of allocated hours in future years to continue to be based on the usage data.</p> <p>It appears the county will hire a seasonal, full time scheduler for 2018, a proposal I strongly support. From my perspective in the field, and as a consumer of the county program for a number of years, I believe 2016 and 2017 part-time scheduler did not have enough time to do the job adequately. I would also support a part-time seasonal worker to back up the primary scheduler and check on the inspectors on-site.</p> <p>We appreciate the financial support for the various Eurasian Milfoil treatment programs. Although our proposed allocation is reduced by 20%, we understand additional lakes are in need of the support.</p> <p>We support the continuation of the water testing program and believe it critical to the early discovery of new AIS.</p>	<p>Thank you for your comments. Crow Wing County certainly recognizes and appreciates the large role lake associations play in preventing the spread of AIS. Over the years, our AIS program has been driven in large part by the input and thousands of hours of additional annual watercraft inspections financially supported by lake associations.</p> <p>Concerning the hiring of a part-time seasonal position, Crow Wing County believes having a full-time position dedicated to watercraft inspection scheduling and quality insurance will be able to provide both scheduling / coordination of inspectors as well as routine landing checks to ensure inspectors are performing inspections in a consistent manor and answer any questions.</p>	5

## 2018 AQUATIC INVASIVE SPECIES (AIS) PREVENTION PLAN

Date	Name	Comments	Staff Comments	#
		<p>We have not made use of available educational funds. However, we constantly communicate with our 500+ members about AIS prevention through our bi-annual newsletter, website, frequent email blasts, and face-to-face meetings.</p> <p>Regarding the decon stations, most are far from our lake, with the commercial unit at Farm Island Marine and those on the north west part of Mille Lacs closest. We would ask that our inspectors be knowledgeable about the location and hours of the nearest decon units and share that information with boaters needing a serious cleaning.</p> <p>In addition to our frequent communications with members about AIS issues, the Bay Lake IA also:</p> <ul style="list-style-type: none"> <li>-maintains a robust volunteer monitor program,</li> <li>-places ZM detection devices at 10+ locations and checks them during the summer,</li> <li>-owns and operates an iLids device on the public access,</li> <li>-pays divers to inspect numerous underwater locations for ZMI's.</li> </ul> <p>BLIA is dedicated to preventing new AIS from entering Bay Lake and we look forward to continuing our partnership with the county and other entities which share our commitment.</p> <p>Phillip Rollins Bay Lake Improvement Association</p>	<p>Concerning pro-active communication about decontamination station locations, in partnership with the MN DNR, Crow Wing County provides all watercraft inspectors with adequate specialized training and a binder of resources critical to their role as not only AIS preventer, but educator as well. The training and binder includes information about the locations and hours of area decontamination stations. Beginning in 2017, we enhanced decontamination awareness by implementing a "decon. hotline" where folks can call anywhere, 24/7 to find locations and hours of decontamination stations nearest to their location. Watercraft inspectors are provided with business-sized cards containing the hotline number to hand out to watercraft users at staffed landings.</p>	
12/13/17	Cheryl Ahlcrona	<p>We are a lake home owner on Lake Mille Lacs. Over the past few years, our beach has continued to have an increase in zebra mussels. We also own a home in the Twin Cities and frequent Lake Minnetonka. This summer we saw new cleaning stations installed in Spring Park and North Arm on Lake Minnetonka to assist boaters in cleaning their boats. We were impressed with the boaters exiting the lake, and voluntarily utilizing a cleaning station to remove both weeds and possible AIS. Here is the website: <a href="https://www.cd3station.com/">https://www.cd3station.com/</a></p> <p>I would like to suggest that Crow Wing County evaluate these stations to install at public landings in Crow Wing County. I have also requested this for Lake Mille Lacs. This would help reduce not only additional species entering our lake but also help prevent the species in Lake Mille Lacs from being transported to other lakes.</p> <p>In your report, you indicate that The County plans to operate an AIS decontamination station at the Crosslake Joint Highway Maintenance Facility that will be open daily to the public, free of charge. According the FAQ section of the CD3 website, these decontamination units typically required trained staff and is a more costly solution. I</p>	<p>Thank you for your comments. Crow Wing County financially invests in a number of different education and outreach efforts that we believe helps to prevent AIS spread. We provide watercraft inspections. We perform the most inspection hours at the most public access landings of any county in the region. Surveys have shown, including one conducted by the Mississippi Headwaters Board (MHB) in 2017, that the number one place boaters receive helpful information about AIS prevention is watercraft inspectors and volunteers at public access landings. Crow Wing County invests in education and outreach, particularly social / digital media. With this platform, we can reach millions of people who frequently use Minnesota water resources. In addition, Crow Wing County continues to promote behavioral changes by</p>	6

## 2018 AQUATIC INVASIVE SPECIES (AIS) PREVENTION PLAN

Date	Name	Comments	Staff Comments	#
		<p>would recommend comparing the CD3 station as a more cost effective solution before committing to a hot water based, decontamination station.</p> <p>Thank you and please let me know if there is someone else or other associations we should be contacting regarding this request.</p> <p>Regards, Cheryl Ahlcrona</p>	<p>complying with Minnesota State law (see MN Statute 477A.19 and 84D) through the use and promotion of decontamination stations.</p> <p>Decontamination stations have the benefit of inspector interaction plus specialized equipment and high water temperatures that ensures AIS spread is minimized. There are many free decontamination stations available at convenient hours in Crow Wing County.</p>	
12/13/17	Bass Lake Association	<p>On behalf of the Board of Bass Lake Association, comments regarding the 2018 Crow Wing County Aquatic Invasive Species Prevention Plan are as follows:</p> <ol style="list-style-type: none"> <li>1) The premise of points being allocated based on access use (watercraft inspections per-hour) is flawed. In order to determine the actual inspections per hour, an access would need to be monitored on a 24/7 basis to be accurate. Using the number of inspections per hour on a limited amount of time is not valid.</li> <li>2) Even using the limited number of hours for a risk classification can be impacted by time of day. Bass Lake is predominantly a fishing lake and the inspection hours assigned in 2017 did not cover the times to reflect this type of use.</li> <li>3) The distance of infested waters from the public access should be paramount in determining the number of inspection hours. Bass Lake is surrounded by infested waters.</li> <li>4) Uninfected lakes should be given priority. Inspections are the main defense in reducing the risk of the introduction of AIS into a lake.</li> <li>5) All of the lakes that were reduced from 200 hundred hours to 0 hours were in the 290 plus to 430 acre size lakes. It is discriminatory to decrease allocated inspection hours on smaller lakes. Usage of access on smaller lakes cannot be compared to usage of access on larger lakes. It is comparing apples to oranges. Inspections hours cannot be assigned on usage alone.</li> <li>6) Smaller lakes have fewer monetary and manpower resources available.</li> </ol>	<p>Thank you for your comments. Concerning watercraft inspection allocation hours, Crow Wing County makes a concerted effort to maximize the effectiveness and utility of watercraft inspections by staffing landings when they are busiest seasonally (summer vs. fall), weekly (weekends vs. weekdays), and daily (daytime vs. nighttime). By analyzing data from boat counters located at 26 public accesses and performing over 50,000 hours of inspections since 2015, we believe that overall, inspections that occur from mid-morning through late afternoon and on weekends achieves the goal of inspecting the most watercraft and educating the most people. Therefore, when we look at the inspections per-hour data, we know that on the whole, it's reflecting peak landing usage potential.</p> <p>Concerning time of day, Crow Wing County's experience has been that even if there is a momentary or isolated "spike" in watercraft access usage by early morning or late evening users or periodic fishing tournaments or leagues, on the whole, the most amount of watercraft traffic is occurring from mid-morning through late afternoon and on weekends from late spring through early fall.</p>	7

## 2018 AQUATIC INVASIVE SPECIES (AIS) PREVENTION PLAN

Date	Name	Comments	Staff Comments	#
		<p>7) The impact of AIS on smaller lakes is greater and more devastating to the life of the lake.</p> <p>John Carlson, President; Jon Auge, Vice President; Nancy Geiger, Secretary/Treasurer; Catherine McGoldrick, Past President; Martha Steele, Website Administrator</p>	<p>Concerning distance to infested waters, because one of the principal goals of the watercraft inspection program is to prevent the spread of AIS through boater education, making sure that our inspectors make contact with the most amount of people is paramount. Therefore, when data is available, inspections-per hour is the primary means by which inspection hours is allocated. That being said, our risk classification map does take into account AIS infestation status and nearness to AIS infested water bodies. On the whole, looking at the AIS risk classification map, we are inspecting very high and high risk lakes that are near infested water bodies.</p> <p>Concerning inspections on uninfested lakes, of the approximately 500 lakes and rivers in Crow Wing County, 70 are designated infested with AIS (14%). Of the 44 lakes (51 landings) Crow Wing County proposes to have watercraft inspections, 11 (25%) include uninfested lakes. With limited resources, we believe that making sure the most amount of people at the busiest landings overall are inspected. That is why we include both infested and uninfested lakes for watercraft inspections. Infested lakes are inspected because we want to make sure that folks leaving infested waters 1.) are educated about AIS, and 2.) have a thorough watercraft inspection to prevent the spread of AIS to other water bodies.</p> <p>Concerning inspections on “smaller” lakes, the adverse impacts of AIS on water bodies regardless of size has been intensely studied and documented. In addition to the severe and permanent damage to the habitats they invade,</p>	

## 2018 AQUATIC INVASIVE SPECIES (AIS) PREVENTION PLAN

Date	Name	Comments	Staff Comments	#
			<p>AIS also adversely effects recreational and commercial activities and decreases the aesthetic value of nature.</p> <p>Crow Wing County used objective inspections per-hour data and to a lesser extent infestation status as the basis for allocating inspection hours. It is important to remember that there will never be enough money to have inspectors everywhere. That is why it is key that the boaters themselves practice Clean, Drain, and Dry and that they inspect their own boats and report findings to the appropriate persons. Importantly, any modification to the risk classification methodology is not likely to provide additional total hours to lakes due to limited resources, which seems to be the goal. However, in addition to physical watercraft inspections, we plan to also utilize innovative and targeted education and outreach efforts such as “geo-fencing” that will target watercraft access smart phone users who use public boat access landings and sometime thereafter using re-targeting marketing.</p>	
12/14/17	Carl Floren	<p>We own a home on Lake Mille Lacs and have been saddened by the influx of harmful species, primarily Zebra Mussels (in Mille Lacs) by also by Milfoil, Asian Carp, and various miniature things that seem to be popping up. Much of this seems to be spread from lake to lake by boats that carry bits-of-the-organisms to another lake.</p> <p>I have been reading with great interest the issues now unfolding in Serpent Lake (and surroundings) recently.</p> <p>I have seen some new air-powered cleaning stations in the Twin Cities metro area that look to be effective; the CD3 Stations. I’ve watched a number of people use these as soon as they pull out of a lake to good effect. I’ve used one myself. These work! Simple, no water feeds, etc., etc.</p>	<p>Thank you for your comments. Crow Wing County financially invests in a number of different education and outreach efforts that we believe helps to prevent AIS spread. We provide watercraft inspections. We perform the most inspection hours at the most public access landings of any county in the region. Surveys have shown, including one conducted by the Mississippi Headwaters Board (MHB) in 2017, that the number one place boaters receive helpful information about AIS prevention is watercraft inspectors and volunteers at public access landings. Crow Wing County invests in education and outreach, particularly social /</p>	8



## 2018 AQUATIC INVASIVE SPECIES (AIS) PREVENTION PLAN

Date	Name	Comments	Staff Comments	#
		<p>May I respectfully suggest that Crow Wing County take a serious look at this solution? They have a website, at <a href="https://www.cd3station.com/">https://www.cd3station.com/</a></p> <p>Thank you!</p> <p>Carl Floren Garrison, Minnesota</p>	<p>digital media. With this platform, we can reach millions of people who frequently use Minnesota water resources. In addition, Crow Wing County continues to promote behavioral changes by complying with Minnesota State law (see MN Statute 477A.19 and 84D) through the use and promotion of decontamination stations. Decontamination stations have the benefit of inspector interaction plus specialized equipment and high water temperatures that ensures AIS spread is minimized. There are many free decontamination stations available at convenient hours in Crow Wing County.</p>	
12/18/17	Thomas Hansen	<p>Jacob:</p> <p>With respect to the proposed 2018 CWC AIS Prevention Plan these are a couple of my comments. I am the President of Kimble Lake Improvement District (KLID) and these are my thoughts as President of the LID and not the official record of the LID as we have not had an official meeting.</p> <p>First, I am a big picture guy and did not study the minute details of the plan. I am sure that there are plenty of other people who will comment on the little details.</p> <p>I have three comments.</p> <p>The first comment relates to the allocation of CWC paid access-monitoring for watercraft inspection. I cannot negatively critique your plan as to how you propose to allocate the available dollars and inspection hours. A more "scientific" or planned method of allocation seems to make a lot of sense. CWC probably should have been allocating hours based on some sort of rational system in years past. My critique is that certain lakes (Kimble for one) are suffering immediate and severe reductions in CWC paid inspection hours. I think Kimble Lake received 450 hours from CWC last year and in 2018 it is proposed that Kimble Lake will receive only 100 paid hours. This proposed change negatively affects our assess-monitoring plan and this is a plan we thought was in sync with CWC desires.</p> <p>The second comment relates to how CWC proposes to reimburse lake associations and lake improvement districts for milfoil treatment. Prior to 2017 we received reimbursement for up to \$5,000 in what I call EWM "search and destroy" costs. Without any previous notification this financial assistance plan changed mid-</p>	<p>Thank you for your comments. Kimble Lake's risk rating and inspection hours were proposed to decrease from 450 to 100 hours in 2018 due to the low average inspections per-hour obtained from the results of watercraft surveys in 2016 and 2017. In fact, Kimble Lake had the lowest average inspections per-hour in 2016 &amp; 2017 for lakes that have inspection data available. However, due to the fact that many weekday hours of inspections occurred on Kimble Lake in 2017 (due to expanded coverage hours provided by the Lake Association in addition to the County's allocated hours), we agree that this may have negatively affected the average inspections per-hour data. Therefore, we will increase the inspection hours on Kimble Lake from 100 to 300 hours and raise the risk rating from "moderate" to "high" in 2018. This still represents a decrease of 150 hours of inspections compared to 2017.</p> <p>Concerning Eurasian Water Milfoil (EWM) grants, Crow Wing County believes that taxpayer money is best utilized when EWM treatments are paid for rather than surveys. When we first started</p>	9

## 2018 AQUATIC INVASIVE SPECIES (AIS) PREVENTION PLAN

Date	Name	Comments	Staff Comments	#
		<p>season 2017 to "reimbursement for one survey and costs to treat milfoil up to \$5,000." This change had a major impact on our 2017 LID budget as we had planned to receive \$5,000 when we received less than \$3,000. We survey Kimble for EWM four times per year in an effort to stay ahead of EWM infestations and each survey costs us \$1,340.00. The DNR changed its permitting for EWM treatment in 2017 by requesting us to "hand pull" EWM instead of treating it with herbicides. Our 2017 EWM treatment expense was therefore nominal. I would like to suggest that perhaps EWM "search" expenses be as important as "destroy expenses". The first incentive should certainly be to "search" out AIS because if we don't first "search" how can we ever "destroy"? I believe most LID's or associations that conduct the "search" will almost always figure out how to fund the "destroy"?</p> <p>Finally, KLID has been generous with Kimble Lake Homeowner's Association (KLHA) in supporting the KHLA access-monitoring plan. KLID's commitment to the plan totaled \$5,000 last year and helped fund approximately 300 hours of watercraft inspection. KLID believed its commitment to support KLHA access-monitoring was in line with not only its mission statement but also with CWC's desire to ramp-up access-monitoring in an attempt to slow the spread of AIS. If KLID receives only nominal financial assistance for EWM survey and treatment costs, KLID will be forced to cut back if not suspend its support of KLHA access-monitoring. This coupled with the severe reduction in CWC paid inspection hours pretty much decimates KLHA efforts to monitor the Kimble Lake access. It is hard for me to believe that 100 or even 200 annual hours of access-monitoring can have much of an effect on slowing the spread of AIS, which is what the 2018 Crow Wing County AIS Prevention Plan is all about.</p> <p>Thank you for the opportunity to comment on the proposed plan.</p> <p>Respectfully submitted,</p> <p>Thomas Hanse Kimble Lake</p>	<p>offering EWM grant monies in 2015, that was the original intent of the grants. However, we do recognize that in order to treat EWM, a survey must first be conducted. Therefore, we will offer up to \$4,000 for eligible EWM lakes (10 of them) for one survey (regardless of whether or not it leads to treatment) and all treatments.</p>	
12/21/17	Jim Schultz, Dave Rysdam Kimble Lake AIS Committee	<p>Regarding: Proposed 2018 Crow Wing County AIS Plan</p> <p>Dear Board of Commissioners and Jacob Frie:</p> <p>We have participated with the Northern Crow Wing County Coalition of Lake Associations in developing their comments to the 2018 preliminary AIS prevention plan and fully support those comments. However, there are a few items that we would like to provide input on specifically for Kimble Lake.</p>	<p>Thank you for your comments. Kimble Lake's risk rating and inspection hours were proposed to decrease from 450 to 100 hours in 2018 due to the low average inspections per-hour obtained from the results of watercraft surveys in 2016 and 2017. In fact, Kimble Lake had the lowest average inspections per-hour in 2016 &amp; 2017 for lakes that have inspection data available. However, due to the fact that many weekday</p>	10

## 2018 AQUATIC INVASIVE SPECIES (AIS) PREVENTION PLAN

Date	Name	Comments	Staff Comments	#
		<p>We believe the approach of using a risk rating is a positive step forward in preventing the spread of AIS. <b>But we are very disappointed and surprised with the medium risk rating and resulting monitoring hours for Kimble.</b> Please reconsider this rating.</p> <p>The medium risk rating approach for Kimble does not take into account:</p> <ul style="list-style-type: none"> <li>○ The DNR removed the boulders from Kimble Creek and this will significantly increase Kimble Access traffic. The UMAISRC thought the boulder removal was premature.</li> <li>○ Because Kimble asked the County to staff the access during the week in 2017, the Kimble inspections per hour are skewed given there is less watercraft traffic at the access during the week. Most traffic occurs on Friday to Sunday when most lakes' accesses are staffed.</li> <li>○ Lakes upstream from Kimble are not infected and we are trying to protect them from being infected from Kimble. So far Bass/Star/Little Bass/Little Star and Clear are not infested. Dramatically reducing our access monitoring hours puts this situation at risk.</li> </ul> <p>If the CWC plan remains unchanged, Kimble will need to substantially reduce our access monitoring program during 2018. This puts Kimble at risk for getting other AIS and moving the AIS we now have upstream.</p> <p>We are prepared to discuss this situation at any time convenient for you.</p> <p>Jim Schultz, Dave Rysdam Kimble Lake AIS Committee</p>	<p>hours of inspections occurred on Kimble Lake in 2017 (due to expanded coverage hours provided by the Lake Association in addition to the County's allocated hours), we agree that this may have negatively affected the average inspections per-hour data. Therefore, we will increase the inspection hours on Kimble Lake from 100 to 300 hours and raise the risk rating from "moderate" to "high" in 2018. This still represents a decrease of 150 hours of inspections compared to 2017.</p>	
12/21/17	Fifty Lakes Property Owners Association (FLPOA)	<p>The Fifty Lakes Property Owners Association (FLPOA) would like to offer comments, suggestions and recommendations regarding the 2018 Crow Wing County Aquatic Invasive Species Plan.</p> <p>The University of Minnesota Aquatic Invasive Species Research Center (MAISRC) has identified Crow Wing County as one of three areas in Minnesota as a "hot bed" for zebra mussels (ZM).</p> <p>Dr. Mike McCartney, a research scientist at the MAISRC, has been analyzing DNA from zebra mussels to determine the travel patterns of the mussels from one lake to another. He has discovered that more often, the spread of the mussels usually occurs from one small local lake to another small local lake.</p>	<p>Thank you for your comments. Crow Wing County is aware of and continues to monitor the research and outreach efforts occurring at the University of Minnesota's Aquatic Invasive Species Research Center (MAISRC). As new published studies become available for public consumption in their final form, we will continue to explore new and innovative ways to evaluate AIS risk and how that relates to inspection hours allocation moving forward. Importantly, any</p>	

## 2018 AQUATIC INVASIVE SPECIES (AIS) PREVENTION PLAN

Date	Name	Comments	Staff Comments	#
		<p>The FLPOA Board is asking the county to reconsider the allocation of hours to the five lakes and four public watercraft landings in the City of Fifty Lakes. The 2018 CW County AIS Protection Plan allocates 300 hours to only one of the four landings in the city. The East Fox Lake landing would receive 300 hours and the other three landings would receive zero hours. The past two-years the city landings have received a total of 800 hours to cover the four landings. The landings on Eagle, Kego and Mitchell Lakes are the landings that haven't been allocated any hours.</p> <p>To date none of the five lakes in the city are infected with any AIS. But, DNR designated AIS infected lakes surround the entire City of Fifty Lakes:</p> <ul style="list-style-type: none"> <li>• 2 to 3 miles north of the city both Washburn and Roosevelt Lakes are infected with Eurasian Water Milfoil (EM).</li> <li>• 4 to 5 miles east of the city Emily and Ruth Lakes are infected with EM. Ruth Lake is also listed as being infected with zebra mussels (ZM).</li> <li>• 2 to 3 miles south and west of the city the entire Whitefish Chain of Lakes are infected with ZM.</li> </ul> <p>This is one reason the FLPOA is requesting Crow Wing County to reconsider the allocation of AIS inspection hours to Fifty Lakes and add additional hours to cover the Eagle, Kego and Mitchell Lake landings. The MAIS RC has said that landing inspections are one of the most important things that can be done to prevent the spread of AIS.</p> <p>Another reason the association is requesting addition hours is the role of an inspector at a landing. The association understands that role to be prevention, enforcement and education. Education is probably the most important. The inspector has an opportunity to work one-on-one with the watercraft owner to explain and demonstrate the expectations of the AIS prevention program.</p> <p>The following are some recommendations and suggestions:</p> <ol style="list-style-type: none"> <li>1. The FLPOA recommends one other component be added to the risk analysis evaluation. That is to consider the non-infected lakes in the county. These lakes are the targets for the spread of AIS and need to be part of the analysis. Many non-infected lakes in the county receive zero hours or no inspector support in the 2018 plan. Subdivision 3 of the 2017 Minnesota Statute 4 77 A.19 titled AIS Prevention Aid states "A county receiving a distribution under this section must use the proceeds solely to prevent the introduction or limit the spread of AIS at all access sites in the county". The FLPOA recognizes the fact that this would be an impossible task to have inspector support at all the landings in the county. But, the need for inspector support at as many landings in the county is supported by the MAISRC center identifying Crow Wing County as a "hot bed" for ZM and the research findings by Dr. McCartney regarding the movement of ZM between lakes.</li> <li>2. The association suggests the county explore the "Centralized Inspection Program" in Wright County. This is a pilot program and may be another</li> </ol>	<p>modification to the risk classification methodology is not likely to provide additional total hours to lakes due to limited resources, which seems to be the goal.</p> <p>Concerning 50 Lakes landings being near to AIS infested lakes, the objective criteria Crow Wing County used for determining allocation of watercraft inspection hours is inspections per-hour and to a lesser extent AIS infestation status. Of the 4 landings Crow Wing County inspected in 2016 &amp; 2017, only one landing (East Fox) had high enough inspections per-hour to warrant inspections in 2018. The remaining landings had inspections that averaged less than 0.9 per-hour for 2016 and 2017.</p> <p>Concerning uninfested lakes being included in the analysis, with limited resources, Crow Wing County believes that making sure the most amount of people at the busiest landings overall are inspected. Of the approximately 500 lakes and rivers in Crow Wing County, 70 are designated infested with AIS (14%). Of the 44 lakes (51 landings) Crow Wing County proposes to have watercraft inspections, 11 (25%) include uninfested lakes. There will never be enough money to have inspectors everywhere. That is why it is key that the boaters themselves practice Clean, Drain, and Dry and that they inspect their own boats and report findings to the appropriate persons. In addition to physical watercraft inspections, we plan to also utilize innovative and targeted education and outreach efforts such as "geo-fencing" that will reach watercraft smart phone users.</p> <p>Concerning alternative forms of watercraft inspections, Crow Wing County is aware of the</p>	

## 2018 AQUATIC INVASIVE SPECIES (AIS) PREVENTION PLAN

Date	Name	Comments	Staff Comments	#
		<p>method to prevent the spread of AIS. This program is not as labor intense and doesn't require AIS inspectors at all the landing sites.</p> <p>3. The association suggests the county form an AIS advisory board from lakeshore owners and citizens in the county. An advisory board and lake associations could establish an excellent AIS communication network and the cost would be minimal. Most associations in the county communicate with their members using newsletters, meetings and the web. The FLOPA currently has 187 paid members in the association. The Whitefish Property Owners Association (WAPOA) has over 1000 members. This is an example of the communication network that is available.</p>	<p>“regional inspection program” that was piloted on 3 lakes in Wright County for 21 days in October, 2017. It is our understanding that Wright County will look to continue that pilot project in 2018 covering a longer timeframe. We will continue to monitor the financial, logistical, user feedback, and overall success of the program to determine if such a program is a good fit for Crow Wing County in the future.</p> <p>Concerning the formation of an AIS advisory board, since 2010, when Crow Wing County assumed administrative responsibilities for County water planning, Crow Wing County has been at the forefront of pro-active communication with all stakeholders concerning water quality and AIS prevention. We will continue our aggressive, proactive and broad approaches to getting input from stakeholders. Below is a list of events and opportunities where Crow Wing County has pro-actively solicited feedback and answered questions from stakeholders concerning AIS:</p> <ul style="list-style-type: none"> <li>• April: Participation in AIS roundtable hosted by WAPOA, others</li> <li>• May: Hosted lake association open house</li> <li>• May: New AIS decontamination hotline and general decontamination awareness advertising</li> <li>• June: AIS newsletter sent to all riparian (those who live on a river or lake) owner in the County (over 14,000).</li> <li>• August: MHB canoe days event</li> <li>• August: Crow Wing County Fair</li> <li>• September: End of year AIS wrap-up meeting hosted by Crow Wing County.</li> <li>• December: 30-day public comment period for proposed 2018 AIS Prevention Plan</li> <li>• Spring – fall: weekly e-mails to lake association and LIDs with updates about the</li> </ul>	

## 2018 AQUATIC INVASIVE SPECIES (AIS) PREVENTION PLAN

Date	Name	Comments	Staff Comments	#
			<p>status of the watercraft inspection program and other AIS specific information.</p> <ul style="list-style-type: none"> <li>• All year: one-on-one informal meetings with lake association representatives</li> <li>• All year: AIS summit and other conferences where stakeholders are in attendance.</li> <li>• All year: Various individual e-mails and phone calls, responded to promptly.</li> </ul> <p>The process used for gathering formal feedback from the public for the 2018 AIS Prevention Plan is a way in which we can receive the broadest diversity of inputs from as many stakeholders as possible. We are not aware of any other counties that use a comment period to garner public feedback. It is the same process used for other land-related practices such as the Water Plan, Land Use Ordinance, and recreation trail proposals. The process is clear, consistent, transparent, and effective. According to the Minnesota DNR, Crow Wing County's annual AIS Prevention Plan is "a great example for others" to follow.</p>	
12/21/17	Tom Watson (Northern Crow Wing Coalition of Lake Associations)	<p>Dear Board of Commissioners:</p> <p>On behalf of the Board of Directors of the undersigned lake and property owners associations, we offer comments, suggestions and recommendations regarding the 2018 Crow Wing County Aquatic Invasive Species Prevention Plan (Plan). Our lake associations have provided input and suggestions each year since 2015.</p> <p>Fundamentally, preventing and controlling the spread of the numerous non-native aquatic invasive species (AIS) in our public waters is our primary focus. Our comments for this proposed County Plan are directed suggestions and recommendations to address the risks to the local economy of the threats with the invasion of more species of non-native aquatic plants and animals, and further spread of presently identified AIS in our area.</p> <p>We offer that the County must consider the property tax and economic data as evidence of the importance of managing water quality and AIS for our Crow Wing</p>	<p>Thank you for your comments. The adverse impacts of AIS on water bodies has been intensely studied and documented. In addition to the severe and permanent damage to the habitats they invade, AIS also adversely effects recreational and commercial activities and decreases the aesthetic value of nature. Crow Wing County shares your same concern about controlling the spread of AIS on public waters.</p> <p>Concerning public accesses as it relates to funding, the 102 number you refer to that resulted in \$442,755 being allocated to Crow Wing County for AIS prevention is based 50% on the number of public "watercraft trailer launches"</p>	

## 2018 AQUATIC INVASIVE SPECIES (AIS) PREVENTION PLAN

Date	Name	Comments	Staff Comments	#
		<p>County lakes area and throughout Crow Wing County. This economic data illustrates the importance and growing magnitude of “quality” water as a destination for visitors, tourists, second homeowners, and small businesses.</p> <p>As you know, the 2014 Minnesota Legislature enacted legislation that appropriated \$4.5 million for 2014 and \$10 million for 2015 and annually thereafter solely to prevent the introduction or limit the spread of aquatic invasive species (AIS) in our public waters. As a reminder of the state statute authorizing this AIS Prevention Aid, the “. . . county that receives a distribution under this section [MN Stat. 2016, Section 477A.19] <u>must use the proceeds solely to prevent the introduction or limit the spread of aquatic invasive species at all access sites within the county</u>”. [emphasis added]</p> <p>This annual appropriation is made to the Commissioner of Revenue who is required to confirm the quantities of public accesses and parking sites at those same accesses. The Commissioner has provided those quantities and the 2018 projected state aid amount for Crow Wing County AIS prevention is \$422,755, based fifty (50%) percent on 102 public accesses (launch) and the other fifty (50%) percent on 917 public access parking spaces in Crow Wing County. This is a reduction of nearly \$(3,700) compared to the 2017 AIS state aid amount. It is solely the result of other counties receiving more state aids due to reporting more parking and public accesses, while Crow Wing County quantities have been unchanged since 2016 with minimal changes since 2014.</p> <ul style="list-style-type: none"> <li>• Suggestion: Crow Wing County should, with cooperation of lake associations, confirm the number of parking spaces and public accesses to ensure accuracy of this data. <ul style="list-style-type: none"> <li>o FYI -- Page 2 of the County Plan refers to “landings”, which is a term not used in the applicable state statute, and provides a total “landings” of 182, whereas the County reports only 102 public accesses. Are there 182 public accesses?</li> </ul> </li> </ul> <p>We reviewed the proposed 2018 Crow Wing County AIS Plan and analyzed the data that summarizes the 2018 budget with comparisons to estimated/actual 2017, budget 2017 as approved, and budget and actual 2015 as show in the following table:</p>	<p>and 50% on watercraft trailer parking spaces according to the Minnesota Department of Revenue. Those accesses are administered by an entity (i.e., federal, state, county, city, etc.) and are capable of supporting a trailer down a ramp. That list does not include private or carry-in only accesses. The 102 number is “public accesses” but with the caveat of no carry-in or non-trailer accesses. The 182 number included in the proposed 2018 AIS Prevention Plan is a list of known public and private accesses including carry-ins. In 2016 and 2017, Crow Wing County participated in making sure the public information (i.e, parking spaces, etc.) on landings administered by Crow Wing County are accurate. The Minnesota DNR checks its own watercraft access sites to ensure accuracy. However, if you have information about watercraft accesses administered by cities, townships, the U.S. Army Corps of Engineers, or other accesses that you think are missing or need updating, contact Eric Wrede with the Minnesota DNR Public Water Access and Fishing Pier Programs at 651-259-5624 or <a href="mailto:eric.wrede@state.mn.us">eric.wrede@state.mn.us</a>.</p> <p>Concerning the allocation of watercraft inspections, Crow Wing County performs the most hours (16,600 proposed) and most landings (51 proposed) of watercraft inspections in the region. 75% of the proposed AIS Prevention Plan budget is allocated to the watercraft inspection program. We also have very low administrative personnel costs in the region at 5%.</p> <p>Concerning cost effective approaches to employing watercraft inspectors, Crow Wing County (as an organization) maintains a contract with Brainerd's Employment Resource Center (ERC) to employ all watercraft inspectors. After a</p>	

## 2018 AQUATIC INVASIVE SPECIES (AIS) PREVENTION PLAN

Date	Name	Comments	Staff Comments	#																																																																																
		<table border="1" style="width: 100%; border-collapse: collapse; margin-bottom: 10px;"> <thead> <tr> <th></th> <th style="text-align: right;">Proposed 2018 Bud</th> <th style="text-align: right;">2017 Est/Act**</th> <th style="text-align: right;">Final 2017 Budget</th> <th style="text-align: right;">2016 Est/Act</th> <th style="text-align: right;">Final 2016 Budget</th> <th style="text-align: right;">2015 Proj Act</th> <th style="text-align: right;">2015 Budget</th> </tr> </thead> <tbody> <tr> <td>Inspections*</td> <td style="text-align: right;">\$352,868</td> <td style="text-align: right;">\$304,913</td> <td style="text-align: right;">\$314,951</td> <td style="text-align: right;">\$337,948</td> <td style="text-align: right;">\$293,176</td> <td style="text-align: right;">\$276,000</td> <td style="text-align: right;">\$264,473</td> </tr> <tr> <td>Decontamination</td> <td style="text-align: right;">26,100</td> <td style="text-align: right;">24,986</td> <td style="text-align: right;">26,500</td> <td style="text-align: right;">6,877</td> <td style="text-align: right;">51,000</td> <td style="text-align: right;">50,000</td> <td style="text-align: right;">90,000</td> </tr> <tr> <td>Education/training</td> <td style="text-align: right;">20,900</td> <td style="text-align: right;">13,259</td> <td style="text-align: right;">16,500</td> <td style="text-align: right;">41,892</td> <td></td> <td style="text-align: right;">43,000</td> <td></td> </tr> <tr> <td>Milfoil treatment</td> <td style="text-align: right;">40,000</td> <td style="text-align: right;">30,539</td> <td style="text-align: right;">45,000</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Other services</td> <td style="text-align: right;">2,500</td> <td style="text-align: right;">2,160</td> <td style="text-align: right;">9,000</td> <td style="text-align: right;">51,664</td> <td style="text-align: right;">77,000</td> <td style="text-align: right;">54,000</td> <td style="text-align: right;">95,000</td> </tr> <tr> <td>Subtotal: Direct svcs</td> <td style="text-align: right;">\$442,368</td> <td></td> <td style="text-align: right;">\$411,951</td> <td></td> <td style="text-align: right;">\$421,176</td> <td style="text-align: right;">\$425,000</td> <td style="text-align: right;">\$449,473</td> </tr> <tr> <td>Multi-county</td> <td style="text-align: right;">23,600</td> <td style="text-align: right;">est) 20,000</td> <td style="text-align: right;">35,000</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>* County staff</td> <td style="text-align: right;">17,520</td> <td style="text-align: right;">est) 40,000</td> <td style="text-align: right;">41,445</td> <td style="text-align: right;">td)</td> <td style="text-align: right;">46,500</td> <td style="text-align: right;">\$54,000</td> <td style="text-align: right;">\$40,000</td> </tr> <tr> <td><b>Total</b></td> <td style="text-align: right;"><b>\$483,488</b></td> <td style="text-align: right;"><b>\$435,857</b></td> <td style="text-align: right;"><b>\$488,396</b></td> <td style="text-align: right;"><b>\$438,381</b></td> <td style="text-align: right;"><b>\$467,676</b></td> <td style="text-align: right;"><b>\$477,000</b></td> <td style="text-align: right;"><b>\$489,473</b></td> </tr> </tbody> </table> <p style="font-size: small; margin-left: 40px;">* county staff costs identified as a separate line item ** as of 11/14/17</p> <p>We believe that a stronger, more effective Plan, improved funding, and more direct program services should be conducted in 2018, and must consider the following items:</p> <ol style="list-style-type: none"> <li>1. <u>Increase</u> the allocation by at least \$45,000 for watercraft inspections that would add at least 2,000 watercraft inspection hours and for “water-focused” direct education services, which is the fundamental intent of Laws 2014, Chapter 308, with this additional support:             <ol style="list-style-type: none"> <li>a. The \$45,000 carryover funds from 2017 should be used for direct, local AIS efforts in 2018 as <u>Chapter 308 requires</u> each county to spend these state aid funds at public access sites within the County;</li> <li>b. The Minnesota Department of Natural Resources (DNR) has informed lake associations that the 50/50 grant program has been eliminated for 2018, which results in a funding reduction for WAPOA and Friends of Lower Hay of about 1,200 hours;</li> <li>c. We have a need to increase the inspector hourly wage to attract and retain the needed inspectors at a time when the present hourly wage rate is not adequate;</li> <li>d. The “micro-economy” of Crow Wing County is largely sustained by the “water- based” resources in this area;</li> <li>e. The threat of present non-native AIS (zebra mussels, Eurasian watermilfoil, spiny waterflea, rusty crayfish, and starry stonewort) found in lakes and waters of North Central Minnesota is a serious matter, which was addressed in a two part series in the Minneapolis Star Tribune this past summer;</li> </ol> </li> </ol>		Proposed 2018 Bud	2017 Est/Act**	Final 2017 Budget	2016 Est/Act	Final 2016 Budget	2015 Proj Act	2015 Budget	Inspections*	\$352,868	\$304,913	\$314,951	\$337,948	\$293,176	\$276,000	\$264,473	Decontamination	26,100	24,986	26,500	6,877	51,000	50,000	90,000	Education/training	20,900	13,259	16,500	41,892		43,000		Milfoil treatment	40,000	30,539	45,000					Other services	2,500	2,160	9,000	51,664	77,000	54,000	95,000	Subtotal: Direct svcs	\$442,368		\$411,951		\$421,176	\$425,000	\$449,473	Multi-county	23,600	est) 20,000	35,000					* County staff	17,520	est) 40,000	41,445	td)	46,500	\$54,000	\$40,000	<b>Total</b>	<b>\$483,488</b>	<b>\$435,857</b>	<b>\$488,396</b>	<b>\$438,381</b>	<b>\$467,676</b>	<b>\$477,000</b>	<b>\$489,473</b>	<p>review of area manufacturing, hospitality, customer service, and other seasonal positions, we believe that an increase in wages of \$1.00 per-hour from last year’s rates will better attract and retain watercraft inspectors moving forward.</p> <p>Concerning new and upcoming research, Crow Wing County is aware of and continues to monitor the research and outreach efforts occurring at the University of Minnesota’s Aquatic Invasive Species Research Center (MAISRC). As new published studies become available for public consumption in their final form, we will continue to explore new and innovative ways to evaluate AIS risk and how that relates to inspection hours’ allocation moving forward. Importantly, any modification to the risk classification methodology is not likely to provide additional total hours to lakes due to limited resources, which seems to be the goal.</p> <p>Concerning decontamination, Crow Wing County follows Minnesota state statutes concerning when a decontamination is required. We will continue to follow the current protocol. In 2016, we switched from having the Crosslake decontamination station fully staffed 7 days per-week to on-call only during the weekdays and fully staffed Friday thru Sunday. We have received no negative feedback concerning the availability of the decontamination station under that arrangement. We will certainly continue to analyze usage patterns moving forward and make changes to the hours of operation as necessary to achieve maximum effectiveness.</p> <p>Concerning a potential change of location of the Crosslake decontamination station, the Crow Wing County Land Services Supervisor met with Supervisory Park Ranger Carrine Hodapp of the</p>	
	Proposed 2018 Bud	2017 Est/Act**	Final 2017 Budget	2016 Est/Act	Final 2016 Budget	2015 Proj Act	2015 Budget																																																																													
Inspections*	\$352,868	\$304,913	\$314,951	\$337,948	\$293,176	\$276,000	\$264,473																																																																													
Decontamination	26,100	24,986	26,500	6,877	51,000	50,000	90,000																																																																													
Education/training	20,900	13,259	16,500	41,892		43,000																																																																														
Milfoil treatment	40,000	30,539	45,000																																																																																	
Other services	2,500	2,160	9,000	51,664	77,000	54,000	95,000																																																																													
Subtotal: Direct svcs	\$442,368		\$411,951		\$421,176	\$425,000	\$449,473																																																																													
Multi-county	23,600	est) 20,000	35,000																																																																																	
* County staff	17,520	est) 40,000	41,445	td)	46,500	\$54,000	\$40,000																																																																													
<b>Total</b>	<b>\$483,488</b>	<b>\$435,857</b>	<b>\$488,396</b>	<b>\$438,381</b>	<b>\$467,676</b>	<b>\$477,000</b>	<b>\$489,473</b>																																																																													



## 2018 AQUATIC INVASIVE SPECIES (AIS) PREVENTION PLAN

Date	Name	Comments	Staff Comments	#
		<p style="margin-left: 40px;">i. Reference: <a href="http://www.startribune.com/how-the-scourge-of-zebra-mussels-spread-across-minnesota/423913703/">“How the zebra mussel scourge spread across Minnesota”</a>; <i>Minneapolis StarTribune</i>; Tony Kennedy; July 30, 2017</p> <p style="margin-left: 80px;"><a href="http://www.startribune.com/how-the-scourge-of-zebra-mussels-spread-across-minnesota/423913703/">http://www.startribune.com/how-the-scourge-of-zebra-mussels-spread-across-minnesota/423913703/</a></p> <p>f. The MAISRC has identified the transfer of non-native AIS is more likely among neighboring lakes within small regions than it is from “super spreader” lakes; and</p> <p style="margin-left: 40px;">i. Reference: <a href="http://www.echopress.com/news/4301089-out-musseling-mussels-researcher-hopeful-new-tactic-against-invasive-species/">“Out-musseling the mussels: Researcher hopeful of new tactic against invasive species”</a>; <i>Alexandria Echo</i>; Ryan Pietruszewski; July 22, 2017</p> <p style="margin-left: 80px;"><a href="http://www.echopress.com/news/4301089-out-musseling-mussels-researcher-hopeful-new-tactic-against-invasive-species/">http://www.echopress.com/news/4301089-out-musseling-mussels-researcher-hopeful-new-tactic-against-invasive-species</a></p> <p>g. Reassess, considering the recent MAISRC report on zebra mussel “transfer” among lakes, the risk measure for lakes neighboring “very high risk” lakes in a same small region as at least “high risk” lake(s).</p> <p>2. <u>Increase</u> the allocation by at least \$50,000 for watercraft inspections and education funded with “local property tax levy” dollars, that would add watercraft inspection hours and “water-focused” direct education services and materials, which is the fundamental intent of Laws 2014, Chapter 308, considering:</p> <p style="margin-left: 40px;">a. Increase watercraft inspections with a more “marketable” hourly wage,</p> <p style="margin-left: 40px;">b. Address the watercraft inspection demand for lakes neighboring “very high risk” lakes in a small region identified in Item 1. f &amp; g above,</p> <p style="margin-left: 40px;">c. The MN DNR has continually told us that these lakes are for “all” people and not just the property owners. If that is the case, then the County should also be funding efforts to keep our lakes healthy, not just lake associations and the State. If starry stonewort, spiny waterflea, Eurasian watermilfoil or silver carp get into the Whitefish Chain or Pelican or Gull Chain, Crow Wing County officials, County Commissioners, and the rest of us can watch property values slide</p>	<p>US Army Corps of Engineers (USACOE) in the summer of 2016 to discuss a proposed re-location of the existing Crosslake decontamination station. We were told that the USACOE did not have the space available to re-locate the decontamination station at the Crosslake campground. A follow-up phone call was made in January, 2017 to see if there were any changes since the 2016 discussion. There was none.</p> <p>Concerning Pelican Lake decontamination efforts, the Minnesota DNR does not have any inspection data from watercraft inspections performed at the Pelican Square decontamination station located in the City of Breezy Point in 2017. With 2018 data, both the State of Minnesota and the County will be able to monitor the effectiveness of the Pelican Square operation to determine if such a program / model is replicatable for other LGUs and businesses in the State.</p> <p>Concerning the retention of County local AIS aid, in 2017, Crow Wing County actually spent \$10,000 more on level 1 watercraft inspections than was budgeted in 2017 (\$307,229 actual vs. 296,979 budgeted), but due to no “Top 10 Group” multi-county project coming to fruition, other under-spent budgeted items, and carry-over from 2016, we still have a positive balance for 2018 (approximately \$45,000). As the proposed plan clearly articulates, all but approximately \$5,000 of both carry-over and State AIS monies (\$422,755) is planned to be spent in 2018.</p> <p>Concerning in-kind spending by lake associations and other AIS partners, the funds</p>	

## 2018 AQUATIC INVASIVE SPECIES (AIS) PREVENTION PLAN

Date	Name	Comments	Staff Comments	#
		<p>downward. Then we will be interested in watching the County address the county tax levy increases on <u>all</u> property owners to make up the difference. We need to remain ahead of the problem and help with the AIS prevention effort, and</p> <ol style="list-style-type: none"> <li>d. Fund County personnel and travel costs from the County General Fund.</li> </ol> <ol style="list-style-type: none"> <li>3. Present Decontamination program must become more effective             <ol style="list-style-type: none"> <li>a. Decontamination should be mandatory for watercraft moving into and out of multiple lakes in and out of the County, which watercraft are the “transporters” of the non-native AIS,                 <ol style="list-style-type: none"> <li>i. The Wright County model for mandatory watercraft inspection is a good test program, along with the mandatory inspection programs in the western United States’ states.</li> </ol> </li> <li>b. We understand the expected importance of the decontamination, but the present program is not working as measured by expenditures and usage as the number of decontamination treatments performed in 2017, 2016 and 2015 have “not measured up” to the requirement for decontamination, and</li> <li>c. As we offered in past years, the Crosslake location does not work for numerous reasons, and the County should locate it at a site near busy accesses, with more hours of operation especially in the morning, and with better visibility.                 <ol style="list-style-type: none"> <li>i. The Pelican Lake Association decontamination resource at Breezy Point could be duplicated in the Crosslake and other areas about the lakes area, and</li> <li>ii. Another option might be contracting with a private car wash and marine enterprise as the operator of the decon service.</li> </ol> </li> </ol> </li> <li>4. Multi-county regional initiative (\$23,600) – Our lake associations believe it is a good idea and the County should work with other counties and the Mississippi Headwaters Board on developing and planning initiatives. We are especially interested in the “geo-fencing” approach to spreading the message and information.             <ol style="list-style-type: none"> <li>a. As proposed initiatives and projected costs are identified, representatives of our lake associations would be available to meet with the County staff to review, and if approved, decide how to fund those projects,</li> </ol> </li> </ol>	<p>allocated by the State of Minnesota do not require a local "in-kind" match as many state grants do. Crow Wing County recognizes the huge role lake association play in preventing the spread of AIS. Over the years, our AIS program has been driven in large part by the input and thousands of hours of additional annual watercraft inspections financially supported by lake associations.</p> <p>Concerning the creation of an AIS advisory committee, since 2010, when Crow Wing County assumed administrative responsibilities for County water planning, Crow Wing County has been at the forefront of pro-active communication with all stakeholders concerning water quality and AIS prevention. We will continue our aggressive, proactive and broad approaches to getting input from stakeholders. Below is a list of events and opportunities where Crow Wing County has pro-actively solicited feedback and answered questions from stakeholders concerning AIS:</p> <ul style="list-style-type: none"> <li>• April: Participation in AIS roundtable hosted by WAPOA, others</li> <li>• May: Hosted lake association open house</li> <li>• May: New AIS decontamination hotline and general decontamination awareness advertising</li> <li>• June: AIS newsletter sent to all riparian property owners (those who live on a river or lake) in the County (over 14,000).</li> <li>• August: Mississippi Headwaters Board (MHB) Canoe Days event</li> <li>• August: Crow Wing County Fair</li> <li>• September: End of year AIS wrap-up meeting hosted by Crow Wing County.</li> <li>• December: 30-day public comment period for proposed 2018 AIS Prevention Plan</li> <li>• Spring – fall: weekly e-mails to lake association and LIDs with updates about the</li> </ul>	

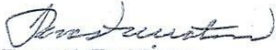
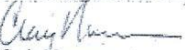


## 2018 AQUATIC INVASIVE SPECIES (AIS) PREVENTION PLAN

Date	Name	Comments	Staff Comments	#
		<p>5. Retaining annual state aid funds is neither responsible nor appropriate based on the experience of the last three (3) years</p> <ol style="list-style-type: none"> <li>a. "Withholding" funds in any year is inconsistent with the fundamental intent of the 2014 legislation for <u>annually</u> preventing and controlling AIS. Delaying for one year will NOT make the challenge and solution better and requires us to fully fund the last months' inspections,</li> <li>b. We suggest that the County complete a second allocation in July of withheld or under-spent state aid funds to enable lake associations to plan their late summer and fall watercraft inspection schedules,</li> </ol> <p>6. Provide a provision in the Plan that accounts for the "in-kind" spending by all organizations, including lake associations, participating in the AIS control and prevention program county-wide,</p> <ol style="list-style-type: none"> <li>a. The County AIS Plan fails to recognize the considerable "in-kind" efforts of our lake associations in AIS services, which accounting can be provided for inspection spending, education and public information, as well as volunteer inspection hours, and</li> <li>b. In addition to the state aid funded AIS activity, our lake associations have funded or will be funding with member dues the following examples of our commitment:               <ol style="list-style-type: none"> <li>i. Annual inspection hours through ERC exceeding state aid funds</li> <li>ii. Lake Associations' contributions to the Univ of MN AIS Research Center</li> <li>iii. Pelican Lake Assn (PLA) – construct new Breezy Point decon center</li> <li>iv. WAPOA – construction of campsites with electricity and sewer @ ACOE Crosslake in exchange for watercraft inspection hours</li> <li>v. AIS Tracker program initiated by PLA with MAISRC; statewide in 2017</li> <li>vi. AIS plant surveys annually</li> <li>vii. Lake water quality testing monthly over the summer months</li> </ol> </li> </ol>	<p>status of the watercraft inspection program and other AIS specific information.</p> <ul style="list-style-type: none"> <li>• All year: one-on-one informal meetings with lake association representatives</li> <li>• All year: AIS summit and other conferences where stakeholders are in attendance.</li> <li>• All year: Various individual e-mails and phone calls, responded to promptly.</li> </ul> <p>The process used for gathering formal feedback from the public for the 2018 AIS Prevention Plan is a way in which we can receive the broadest diversity of inputs from as many stakeholders as possible. Crow Wing County is not aware of any other counties that use a comment period to garner public feedback. It is the same process used for other land-related practices such as the Water Plan, Land Use Ordinance, and recreation trail proposals. The process is clear, consistent, transparent, and effective. According to the Minnesota DNR, Crow Wing County's annual AIS Prevention Plan is "a great example for others" to follow.</p>	

## 2018 AQUATIC INVASIVE SPECIES (AIS) PREVENTION PLAN

Date	Name	Comments	Staff Comments	#
		<p style="text-align: center;">at a cost of \$220 per lake per year</p> <ul style="list-style-type: none"> <li>viii. Other examples are available from each of our lake associations</li> <li>c. A recent report and survey conducted by Concordia College (Moorhead, MN) on behalf of Minnesota Lakes and Rivers Advocates (MLRA) provides information about the contributions of lake associations in Minnesota to preserve and protect our MN lakes.               <ul style="list-style-type: none"> <li>i. Reference: "<a href="#"><u>Minn lakes survey shows frustration DNR</u></a>"; <i>Brainerd Dispatch</i>; December 20, 2017</li> <li style="text-align: center;"><a href="http://www.brainerddispatch.com/news/4377229-minn-lakes-survey-shows-frustration-dnr"><u>http://www.brainerddispatch.com/news/4377229-minn-lakes-survey-shows-frustration-dnr</u></a></li> </ul> </li> </ul> <p>7. Risk classification is an improvement over previous years.</p> <ul style="list-style-type: none"> <li>a. We suggest there needs to be a recognition of the AIS "transfer risk" for lakes in a small region adjacent to "very high risk" lake(s); these lakes should be considered at least "high risk" lakes.</li> </ul>		

# 2018 AQUATIC INVASIVE SPECIES (AIS) PREVENTION PLAN

Date	Name	Comments	Staff Comments	#
		<p>8. Establish an AIS Advisory Committee</p> <ul style="list-style-type: none"> <li>a. Our lake associations have recommended that Crow Wing County appoint an AIS advisory committee/task force much like the County has for several functions and exists in several counties in North Central Minnesota, but rejected previously;                             <ul style="list-style-type: none"> <li>i. An AIS advisory committee would enable much improved communication and coordination between the County and lake associations;</li> </ul> </li> <li>b. Our lake associations <u>have</u> organized a Northern Crow Wing Lakes Association Coalition for planning and communication among our lake associations; coordination of and sharing services and training; and addressing AIS plans including the County AIS Plans. We believe that we have informally worked effectively in the past conducting the present AIS program. We are rarely asked by the County for input on these matters even though our associations have a major role in the annual implementation.</li> <li>c. The formulation of the County's Annual AIS plan would be more effective working with our lake associations rather than only offering a "public comment" period after issuing it.</li> </ul> <p>At the present time, the annual funds from all sources spent on watercraft inspections, decontamination, milfoil treatment, and education and information is considerably less than needed to be effective in preventing the introduction and/or spread of AIS in Crow Wing County. We strongly believe the County needs to make a financial commitment of property tax levy funds to support a more effective AIS prevention program. Long-term we understand and believe that the research underway at MAISRC will be the ultimate solution to these non-native AIS matters. But in the meantime, watercraft inspections and public information/education is the intermediate solution to thwart the further introduction and spread of non-native AIS.</p> <p>Our lake associations will continue to be contributors to this AIS responsibility. We also would be available to meet to discuss our suggestions and recommendations prior to the County Board meeting addressing this 2018 Plan or invited to present at the Board meeting.</p> <p>Sincerely,</p> <div style="margin-left: 40px;">               Thomas N. (Tom) Watson              President, Whitefish Area Property Owners Association (WAPOA)         </div> <div style="margin-left: 40px;">               Craig Norman              President, Pelican Lakes Association (PLA)         </div> <div style="margin-left: 40px;">               Chuck Herrig              President, Gull Chain of Lakes Association (GCOLA)         </div> <div style="margin-left: 40px;">               Steve Curry              President, Friends of Lower Hay Lake, Inc. (FOLH)         </div> <p style="text-align: center; margin-top: 20px;">             Northern Crow Wing Coalition of Lake Associations <span style="float: right;">Page 5 of 6</span>              (WAPOA, PLA, GCOLA, FOLH, FLPOA, KLHA, CBLA, MLA, SLA, OLID, BLIA, CWLARA)         </p>		

## 2018 AQUATIC INVASIVE SPECIES (AIS) PREVENTION PLAN

Date	Name	Comments	Staff Comments	#
		<p>How the zebra mussel scourge spread across Minnesota</p> <p><u><a href="#">Star Tribune, part 1 of 2, 7/30/2017</a></u>  <i>Minneapolis StarTribune; Tony Kennedy; July 30, 2017</i>                      Zebra mussels are invading and choking more of Minnesota’s lakes and rivers than ever - and their relentless advance poses a growing threat to our state’s way of life.</p>  <p>Summer after summer, Pat Rooney looked out at this revered North Woods lake, hoping the tea-colored waters that lured so many anglers also provided a magical barrier against a creature that might destroy it. Zebra mussels already were fouling some of the biggest and best known waters in Minnesota, and were spreading throughout neighboring Cass Lake, a popular swimming, boating and fishing lake near Bemidji. While the larvae had appeared in “Lake Winnie,” scuba divers repeatedly failed to find evidence of adult shells – the surest sign of infestation. Then last August, a fisherman snagged a piece of driftwood encrusted with tiny, tiger-striped clams, and the biological clock began ticking on another Minnesota lake that is home to thousands of residents and visitors alike every year. “Zebras were our nightmare,” said Rooney, owner of Denny’s Resort, a gathering place for walleye anglers since 1932. “Now they are here, and the problem is that you can’t stop it.” Zebra mussels are not the only invasive species appearing in Minnesota’s waters, but their rapid spread poses an increasingly dire threat to the state’s \$5 billion-a-year summer tourism and fishing economy, as well as the cherished lake experience central to Minnesota’s identity. In Lake Pepin, so many zebra mussels inhabit the water that waves stir up millions of dead ones, dumping their razor-sharp shells on shore. An estimated 2 trillion zebra mussels occupy Lake Mille Lacs, where walleye fishing was banned at midsummer this year to protect dwindling fish stocks. Zebra mussels last year debuted in more Minnesota lakes than ever, accelerating an outbreak that hasn’t waned even in the face of mounting control efforts by state and federal agencies. Now zebra mussels graze in half the state’s vaunted Big 10 walleye lakes – a group that has accounted for 40 percent of the statewide walleye harvest. The thumbnail-sized mollusks spread rapidly, and silently but relentlessly upend the fragile ecology of a lake. They smother and kill native mussels. They strain out and consume tiny, edible material, robbing native fish of a fundamental link in the food</p>		

## 2018 AQUATIC INVASIVE SPECIES (AIS) PREVENTION PLAN

Date	Name	Comments	Staff Comments	#
		<p>chain. They excrete a carpet of waste that fosters the growth of hairy, stinky, toxic mats of algae.</p> <p>The University of Wisconsin Sea Grant Institute warns that zebra mussels pose a multibillion-dollar threat to North America’s industrial, agricultural and municipal water supplies. The U.S. Department of the Interior estimates yearly damages of \$500,000 in the Great Lakes region alone. Federal and state agencies are spending tens of millions of dollars each year in a frantic and so far largely futile effort to kill them or halt their advance.</p> <p>In Minnesota, the mussels have encroached on at least 275 lakes and rivers, and infiltrate another 20 to 30 new ones each year. Property value gains along some of those lakes are slowing or falling, posing a long-term economic threat to township and county treasuries in greater Minnesota.</p> <p>“If we don’t get our arms around this thing, we’re going to regret it,” said Jeff Forester, executive director of an association that represents about 6,000 Minnesota lake property owners.</p> <p><u>Unwinnable war?</u></p> <p>The havoc caused by zebra mussels is not limited to lakeshore property, boat engines, or drinking water supply lines in the Upper Midwest. Mussels are in Wisconsin, California, Texas, Louisiana and at least 20 other states besides Minnesota.</p> <p>On the shores of Lake Michigan, front-end loaders plow the mussels from impassable beaches. In Montana this summer, Glacier National Park imposed an unprecedented ban against private motorboats to keep zebra mussels away from the headwaters of three continental-scale watersheds. The ban is part of a collaboration just announced among 70 federal, state and tribal authorities targeting zebra mussels with a \$9.7 million war chest this year and still more money next year.</p> <p>In St. Paul, maintenance crews at the regional water utility battle zebra mussels hand to hand. Since 2007, when the intruders invaded Vadnais, Pleasant and Sucker lakes, workers have been forced to scrape them from screens on the utility’s water supply lines as often as twice a week. And once a year, crews crawl half a mile into a large water delivery pipe to do similar work.</p> <p>“It’s awful and it smells terrible,” said manager Jim Bode. Removing the shells has added \$140,000 a year to the utility’s costs, tying up employees who have fallen behind on other work, Bode said.</p> <p>In Minnesota, the task of stopping the zebra mussel outbreak falls mainly to the state Department of Natural Resources, which spends \$10.5 million annually on combating all aquatic invasive species. The University of Minnesota partners closely with DNR, spending an additional \$685,000 on zebra mussel research since January 2016. Counties and lake associations spend millions more every year on the same fight. DNR officials believe growing public awareness, buttressed with a quartet of zebra mussel-sniffing dogs and stringent boat restrictions and inspections, can slow the</p>		

## 2018 AQUATIC INVASIVE SPECIES (AIS) PREVENTION PLAN

Date	Name	Comments	Staff Comments	#
		<p>spread of the voracious mollusks. They remain hopeful that cutting-edge research on the mussel's genome could identify a way to eliminate them altogether.</p> <p>"I would love to eradicate these things," said Ann Pierce, DNR ecological and water resources section manager. "We are really making some progress." Pierce acknowledged that the invasion is "getting more and more complicated as time goes on." But the fight is far from over, she said. "It's not the time to lay off."</p> <p>Others are less optimistic. State Sen. Bill Ingebrigtsen lives in the Alexandria lakes region on Lake Ida, where zebra mussels are cutting the feet of his grandchildren. As chairman of the Senate's Environment and Natural Resources Finance Committee, he worries that the war against zebra mussels is no longer winnable. "Frankly, I'm not sure we are going to stop them," he said. "They seem to go anywhere they want to go."</p> <p><b>Price tag climbs</b></p> <p>The barnacle-like shellfish have already tipped the biological scales in iconic Minnesota lakes such as Minnetonka, Pepin, Waconia, Gull, Leech, Cass, Pelican, Detroit, Whitefish, Miliona and Osakis. Infested rivers include the Mississippi, St. Croix, Zumbro, Pine and Minnehaha Creek.</p> <p>In Mille Lacs, zebra mussels and invasive spiny waterfleas have combined to help collapse that lake's renown as a walleye fishing destination. Property values appear to be falling as angling restrictions rise, say county assessors. "Certainly fishing is on people's minds when they buy here," Aitkin County Assessor Mike Dangers said.</p> <p>The base land value on the Aitkin County portion of Mille Lacs is 26 percent lower than it was a decade ago, according to property records. The downturn coincided with the U.S. recession, but Dangers said values in other parts of the county – including shoreline lots around uncontaminated Big Sandy Lake – have recovered much faster.</p> <p>Patrick Welle, a natural resources economic consultant and former Bemidji State University professor, said lakeshore properties lose about 16 percent of their value when the lakes are contaminated with invasive species.</p> <p>Jim Davidson of St. Paul, who owns lakeshore property in northern Wisconsin, can see the day when some cabin owners try to sell their property before reporting zebra mussel infestations to authorities. "It's pathetic you even think this way," he said.</p> <p><b>Determined hitchhikers</b></p> <p>Zebra mussels traveled to the U.S. from the Caspian Sea region in far eastern Europe, hiding in the ballast water of ocean freighters. They first took hold in water connected to Lake Erie in 1988, multiplying and spreading rapidly across Michigan, Illinois and other Great Lakes states.</p> <p>Wisconsin got the mussels in 1989, and 260 of the state's 6,000 lakes and rivers are covered by the shellfish. Bob Wakeman of the Wisconsin DNR said the state's roster of contaminated lakes and rivers grows an average of 12 a year.</p> <p>The first Minnesota zebra mussels, besides those plucked from a buoy in Lake Superior in 1989, arrived in the Mississippi and Lake Pepin in 1992. By 2003, zebra</p>		



## 2018 AQUATIC INVASIVE SPECIES (AIS) PREVENTION PLAN

Date	Name	Comments	Staff Comments	#
		<p>mussels had slingshotted north to Lake Ossawinnamakee on the edge of Breezy Point – the first Minnesota inland lake to be contaminated. Researchers believe the mussels journeyed via boat and trailer from Lake Pepin.</p> <p>The DNR responded by heaving boulders into the channel between Ossawinnamakee and Kimball Lake, and treating the infested area with pesticides. But those preventive measures were called off in fall 2005 when Kimball became infested. A mere two years later, the mussels were sweeping across a latticework of regional beachheads. Forester, the lakeshore property advocate, is among those who believe Minnesota was too lax in stopping the spread. “We could have kept them in Lake Pepin,” he said. In addition to threatening native species, zebra mussels clog water intakes at treatment facilities, electric and nuclear power plants and private industry.</p> <p>Last year, water supervisors expanded their arsenal against zebra mussels when they received health department permission to apply an EPA-approved pesticide to water supplies. The St. Paul water utility will expand its use of the chemical treatment this year, Bode said. Even though it has been judged as safe for the treatment of source water, the agency said it will take precautions to ensure that no meaningful traces of the chemical reach the city’s treatment plant.</p> <p><u>The fight</u></p> <p>Zebra mussels won’t kill a lake. In fact, they make the water clearer. But they deplete the productivity and diversity of fish communities.</p> <p>The mussels use their sticky, elastic tentacles to attach to gravel, rocks, underwater plants, docks, swimming rafts and boat hulls. If stepped on, their bladed edges can slice open a foot.</p> <p>Some lakes may be less at risk of infestation because of water chemistry, exposure to sunlight or currents. Once established, though, the mussels gobble the nutrients from water they filter at the rate of 1 liter per mussel per day. The nutrients are essential to the livelihood of smaller, native organisms and forage fish in a lake, which in turn are the food supply of larger fish like walleye.</p> <p>“A simple way to look at it is that they take out the base of the food web,” said Mike McCartney, lead zebra mussel researcher at the Minnesota Aquatic Invasive Species Research Center. “People should be freaked out a little.”</p> <p>The mussels reproduce at an alarming rate. A single female zebra mussel can produce a half billion adult offspring in her lifetime. In three to five years, beds of adult mollusks often coat bottom areas of a lake or river.</p> <p>McCartney and a cohort of DNR experts say fighting the mussels is not a lost cause. Research should be accelerated, they say, because – as bad as the state’s infestation is – fewer than 5 percent of Minnesota lakes are currently contaminated. Watercraft inspections will remain critical, McCartney said, as will improved detection methods and more pesticide trials. If there’s good news, it’s that the tiny invaders aren’t spreading as fast in Minnesota as they are in less-vigilant states. Efforts to eradicate them, however, have so far proven fruitless and costly.</p>		

## 2018 AQUATIC INVASIVE SPECIES (AIS) PREVENTION PLAN

Date	Name	Comments	Staff Comments	#
		<p>Joe Schneider, a resident of Christmas Lake in the west metro, witnessed the resiliency of zebra mussels in 2014, when a trio of lethal toxicants seemed to snuff out an isolated colony of the mussels during a DNR trial not far from his house. The \$60,000 experiment ended when the creatures reappeared outside the kill zone. “It’s literally like a cancer,” said Schneider, who favors an intensified fight against the mussels for the sake of other Minnesota lakes.</p> <p>Christmas Lake residents now pay \$80,000 a year, privately, to keep out other invasive species and to prevent the outward movement of zebra mussels. Their money underwrites long hours of boat and trailer inspections at the Christmas Lake boat ramp.</p> <p>At a U.S. Geological Survey center in La Crosse, Wis., federal zebra mussel researchers Jim Luoma and Chris Merkes are experimenting with other poisons and gene warfare. They say public pressure for a scientific solution keeps funding alive. “We do what Congress wants us to do,” Merkes said.</p> <p><u><a href="#">DNA tracking</a></u></p> <p>At the U, supercomputers have been enlisted to identify the most frequent overland paths traveled by genetically distinct clusters of the mollusks. Groups of mussels with matching genotypes have been found in the Brainerd-Nisswa area, while other zebra mussel families have contaminated pockets of lakes around Detroit Lakes and Alexandria.</p> <p>Becca Nash of the U’s Aquatic Invasive Species Research Center said the findings call for more efforts to block the spread of mussels within regions. The same research, she said, is disproving theories that Mille Lacs and Prior Lake are “super spreaders.” In the surprising case of Mille Lacs – highly trafficked by transient fishing boats – its unique strain of zebra mussels has never been found in another lake. “It makes us think that boat inspections and decontamination are working,” Nash said. Counties and lake associations also are taking a more aggressive role in preventing their spread, changing the state’s boating culture in the process.</p> <p>In the past three years alone, the number of trained, publicly funded inspectors has increased tenfold to more than 1,100 with the help of state money allocated to counties.</p> <p>“Once you lose the balance of a healthy lake, you never get it back,” said Rima Smith-Keprios, who heads zebra mussel prevention in Cass County, where lakes tourism is a \$100 million-a-year industry. “People around here are concerned. We don’t want to be like Mille Lacs.”</p> <p>At some lakes, preventive efforts occur all day, every day. As boaters approach launch ramps on Roosevelt and Ten Mile lakes in Cass County, their movement sets off an electronic eye. While a video camera rolls, a voice greets the boaters and reminds them to clean and drain their equipment.</p> <p>“Some of the reactions are priceless,” said Smith-Keprios.</p>		

## 2018 AQUATIC INVASIVE SPECIES (AIS) PREVENTION PLAN

Date	Name	Comments	Staff Comments	#
		<p>The digital sentries belong to a growing AIS-prevention movement that melds volunteerism, the passion of lake associations, county leadership, DNR expertise and \$10 million a year in state funding.</p> <p>As the third-largest recipient of the money, Cass County this year will receive \$510,000 – enough to employ 32 seasonal boat inspectors, up from seven in 2014. The initiative has sparked new education efforts, encouraged new pilot projects with lake associations, paid for portable decontamination units and greatly boosted the number of trained watercraft inspectors.</p> <p>Last September, for example, Cass County, the DNR, the Army Corps of Engineers and Muskies Inc. collaborated to require 500 participants in the three-day Frank Schneider Jr. Annual Muskie Tournament to turn in signed inspection cards before dipping their boats into local waters.</p> <p>To minimize possible zebra mussel movement, contestants also agreed to fish within one of four lake zones in areas supported with decontamination services and well-staffed by inspectors.</p> <p>“We still have pristine lakes and they should be shielded,” Smith-Keprios said.</p> <p><a href="#">Buying time</a></p> <p>Officials and residents in Hubbard County, including those in its largest city, Park Rapids, dreaded the economic peril posed by zebra mussels to the county’s 250 lakes.</p> <p>An auditor’s report estimates that 60 percent of total taxable land value in Hubbard County derives from lake property. And in the county’s top seven tax-generating townships, 70 to 87 percent of property value is lake-related.</p> <p>The data prompted widespread support for a prevention campaign financed by \$500,000 in donations from area lake associations and townships. Additionally, residents volunteered to inspect watercraft and educate the public. State taxpayers pay to keep the program going.</p> <p>Hubbard County now is a rare bright spot in Minnesota, with all of its lakes free of the Big Four invasive species in the state: zebra mussels, spiny waterfleas, starry stonewort (thick algae) and Eurasian watermilfoil. “The economy here depends on water quality,” said Ken Grob, who founded the coalition.</p> <p>McCartney, the U researcher, said people tend to disregard control efforts such as these, believing that an all-out spread of zebra mussels is inevitable. But so far, he said, efforts like those in Hubbard County and elsewhere appear to be working.</p> <p>Keegan Lund, an aquatic invasive species specialist with the DNR, said that while attempts continue to limit the expansion of zebra mussels, chemicals hold some promise in the fight against further infestations.</p> <p>The state’s biggest poisoning was launched late last year in a 29-acre area of Lake Minnewashta in Carver County. A copper chemical was unloaded on the bay last fall, seemingly killing the target. Surveillance this year will tell whether the mussels</p>		

## 2018 AQUATIC INVASIVE SPECIES (AIS) PREVENTION PLAN

Date	Name	Comments	Staff Comments	#
		<p>regroup. "There's very little experience around the country at controlling them ... so we're basically writing the book," Lund said.</p> <p>DNA sequencing of the mussel's genome could also accelerate the development of genetic and biological agents that might prevent or eliminate the mussels altogether. "That's why it's important for us to slow it down," said John Ringle, director of environmental services in Cass County. "We're buying time."</p> <p>Up north, on the shores of Lake Winnibigoshish, resort owner Rooney acknowledged that a lot of people ask whether his lake will end up like Mille Lacs. He holds out hope that Lake Winnie's sandy bottom will provide fewer hard surfaces for zebra mussels to attach themselves. Still, Rooney cringed this winter at his first encounter with the lake's new invader.</p> <p>While ice-fishing for walleyes, he reeled up a Chinese mystery snail, a harmless crustacean commonly found in the lake. The snail was caked with young zebra mussels.</p> <p>A researcher with the University of Minnesota is out to make zebra mussels their own worst enemy. Mike McCartney, a zebra mussels expert in the aquatic invasive species department at the University of Minnesota, gave a presentation at this year's Lake L'Homme Dieu Association meeting on how communities such as Alexandria can limit and prevent the spread of zebra mussel invasion in the lakes, and perhaps use genetic engineering to combat them.</p> <p>The new research his department is conducting deals with what they call genetic biocontrol of zebra mussels, an invasive species that can harm lakes by eating up nutrients needed to support native fish. Zebra mussels reproduce rapidly and cause other problems from clogging pipes to cutting the feet of swimmers with their sharp-edged shells.</p> <p>"It's the attempt to reduce the population of a pest," McCartney said Saturday, July 13. "You use a genetic approach, which actually goes into, in this case, the genome of the animal and makes changes."</p> <p>The hope for this idea is to modify the genes to create a mussel that can't survive, and then release it into infested lakes to breed with the existing population with the hope of passing along that gene and killing it off.</p> <p>"You could create a lethal gene that causes the mussels to die while they're developing as larvae," McCartney said. "That would work pretty much like a pesticide, because you could release it on an area and those animals in that area wouldn't be able to successfully reproduce."</p>		

## 2018 AQUATIC INVASIVE SPECIES (AIS) PREVENTION PLAN

Date	Name	Comments	Staff Comments	#
		<p>Easy enough, right? Just go in and mess with the genome sequencing of the species and put it out in the lakes to kill them all.</p> <p>Not quite. The U of M AIS department still has a lot of work to do, and some of what they aim to do isn't allowed by law yet. When asked at the end of the presentation how long it might be until this can be put into practice, McCartney said his best guess was around 10 years, and a groan went through the crowd.</p> <p>"I was hoping he was going to say three to five, because you're tapping into some known technology with the oysters and some other ways this has been done," Steve Henry, president of the Lake L'Homme Dieu Association said. "I hope (McCartney is) right — if the powers in Washington start to say, 'Hey this is exciting, this is favorable,' maybe we can move along. But I just think whenever you hear 'genetically modified,' you get a lot of pushback from a lot of non-scientific people, and somewhat rightfully so. It's scary."</p> <p>In Lake L'Homme Dieu, zebra mussels and other invasive species aren't yet an emergency, but the association hopes the people who use the lake will help to keep it from becoming one.</p> <p>Henry cited research being done at the University of Wisconsin-Madison showing how zebra mussels, which actually make the water clearer, can affect lakes.</p> <p>"The zebra mussel excrement makes such wonderful fertilizer that we're seeing increased weeds already just because of the water clarity and the sun getting down there," Henry said. "But they're having huge weed problems in lakes in Wisconsin." Henry reached out to the university to hear about promising new research. "I contacted the AIS department down there because we've had the local folks come and talk, and I thought it would be nice to go a little higher and see what's on the cutting edge," Henry said. "Between the Eurasian milfoil spreading and the zebra mussels and just the general weeds getting worse, that's the path that I fear."</p> <p>Eurasian watermilfoil is another pesky invasive species that Lake L'Homme Dieu suffers from. Native to Europe, Asia and Northern Africa, the fast-reproducing weed was introduced to the United States in the 1940s and poses an annoying obstacle for swimmers and boaters.</p> <p><a href="#">Checking the spread</a></p> <p>McCartney also discussed the spread of zebra mussels which usually occurs between neighboring lakes within small regions. "In each of these regions that we've worked on</p>		

## 2018 AQUATIC INVASIVE SPECIES (AIS) PREVENTION PLAN

Date	Name	Comments	Staff Comments	#
		<p>— around Brainerd, around Alexandria, around Detroit Lakes — each of those individually is a place where they're spreading really fast, really short distances," he said. "The message there is that there are ways that that's happening that need to be better interrupted (with) better surveillance and better prevention."</p> <p>The easiest and most obvious way is for lake users to be mindful of what waters are infested and what equipment is a potential vehicle for transporting mussels to uninfested waters.</p> <p>Researchers can determine where a specific mussel came from by exploring its DNA. The Alexandria Chain of Lakes has three clusters of zebra mussels, McCartney said. Knowing which cluster a mussel is from helps determine how that lake became infested and what measures will help to prevent further spread.</p> <p>Another method that works in some situations is copper sulfate treatment. During his presentation, McCartney referenced an attempt in 2012 that worked nearly perfectly when a man brought a boat lift from Lake Lizzie, a known infested lake in Otter Tail County, to Rose Lake, which is not infested.</p> <p>"If you saw how many mussels are in (Lake Lizzie), you wouldn't believe it," said McCartney. "It's a terrible thing that he did, but he brought it into that lake, and the DNR finds zebra mussels on hard surfaces nearby and on lake bottom."</p> <p>The Minnesota DNR treated the area around the lift with copper sulfate three times to kill all the mussels. That fall, they found six mussels, but when they went back in the following years, they didn't find any mussels anywhere in the entire lake.</p> <p>The problem with copper sulfate treatment is that it only works in small areas. If an entire lake is infested, copper sulfate would not work.</p> <p>Minn.—Minnesota lake association leaders say they donate millions of dollars and volunteer hours each year caring for lakes, yet the Minnesota Department of Natural Resources doesn't take them seriously.</p> <p>In a statewide survey, their comments reflect frustration and alarm over the spread of aquatic invasive species in Minnesota lakes. Those surveyed also indicate they worry about keeping up with the needs of the lakes—they say it's difficult to engage members in conservation activities and they're concerned about the aging of lake property owners.</p> <p>The findings came in a study conducted this summer by Concordia College in Moorhead on behalf of Minnesota Lakes and Rivers Advocates, which represents 6,000 lakeshore and forestland owners.</p>		

## 2018 AQUATIC INVASIVE SPECIES (AIS) PREVENTION PLAN

Date	Name	Comments	Staff Comments	#
		<p>"In the report, citizens do criticize the DNR, but this was not the intent of our survey," said Michelle Marko, one of the researchers. "We hope the report has some useful information for the DNR and lets them know that lake associations are important partners in the management of their lakes."</p> <p>Heidi Wolf, a St. Paul-based invasive species unit supervisor for the DNR, said she couldn't address all the concerns in the report, as some involve other divisions within the DNR.</p> <p>However, some problems have arisen by a lack of funding, she said. To better fight invasive species, her division has requested the Legislature increase the boater registration fee and the out-of-state fishing licenses by \$5 over three years. The Legislature turned down that request, she said.</p> <p>"I think we are looking for the same thing most people are, a partnership to move forward and work on this issue," she said. "It can't be done alone by any one entity so we're happy to have lake associations and (coalition of lake associations) and local units of government work with us on invasive species."</p> <p>Most lake associations formed in the 1960s and 1970s to preserve and protect the lakes. The survey found that they contribute about \$6.25 million and about 1.2 million volunteer hours each year to activities such as aquatic invasive species inspections, water quality testing and community education.</p> <p>Jan Beliveau, director of the Douglas County Lakes Association, said she shares many—but not all—of the concerns listed in the survey.</p> <p>She has worked well with local DNR officials, she said, singling out area fisheries manager Dean Beck for praise. She understands they are hampered by financial constraints as well as the necessity of working with multiple agencies and user groups.</p> <p>More than the DNR, it's challenging to work with local officials such as county commissioners and the local soil and water board, Beliveau said. She said she would like to see the Douglas County Board of Commissioners pull together the different interest groups to improve communication.</p> <p>Much of the ire against the DNR is caused by the agency's structure, said Jeff Forrester, executive director of Minnesota Lakes and Rivers.</p> <p>He cited a Stearns County example, when lake owners as well as local government officials asked the DNR to close an access after it was discovered to be infested with starry stonewort in 2015. Instead, the DNR allowed a fishing tournament there in 2016, he said. Now three neighboring lakes also have starry stonewort.</p> <p>Forrester said it was difficult to work with the DNR because one division handled the tournament, another handled the access point and a third oversaw invasive species.</p> <p>Here are some of the comments in the survey:</p>		

## 2018 AQUATIC INVASIVE SPECIES (AIS) PREVENTION PLAN

Date	Name	Comments	Staff Comments	#
		<ul style="list-style-type: none"> <li>• "MN DNR is ineffective and is not managing (aquatic endangered species). And I do not see any hope that they will ever manage AIS in the state. Changes at the state level need to be made very soon, if not we will lose MN lakes forever."</li> <li>• "...I am disgusted with the ability of the government and DNR to not aggressively close launches and prevent the spread from lakes with this AIS. ... Education is not good enough, highway stops and central boat cleaning need to be supported. The state government needs to take AIS seriously."</li> <li>• One lake association said it spends \$15,000 a year to inspect for aquatic invasives, more than what is spent by its city and state. "We are fortunate that our members are willing to fund this, but unsure how much longer we can spend at this level," that survey respondent said.</li> </ul> <p>The full study can be found at <a href="http://www.mnlakesandrivers.org">www.mnlakesandrivers.org</a> and searching for Concordia Lake Association Study</p>		