

Minnesota Statewide AIS Advisory Committee (SAISAC)

September 19, 2018 Meeting Minutes

MN DNR Office, Sauk Rapids, MN

Members Present: Paul Thiede, Jim Boettcher, Norman Baer, Jim Stratton, Tera Guetter, Kelsey Wenner, Justine Dauphinais, Donovan Strong, James Johnson

Members Absent: Eric Johnson, Jaime Jost, Mary Alverson, Barb Halbakken Fischburg, Paul Hamilton, John Deurr

Ex-officio Members Present: Nick Phelps

Ex-officio Members Absent: Doug Jensen, Nicole Lalum, Norman Deschampe

DNR Staff Present: Heidi Wolf, Tina Wolbers, Phil Hunsicker, Wendy Crowell, Jon Hanson

Guest: Dan Larkin (MAISRC)

Chair J. Stratton called the meeting to order at 10:00a.m.

Motion to approve agenda by P. Thiede. Second by J. Boettcher. Motion approved unanimously.

Motion to approve Meeting Minutes of August 23, 2018. Motion to approve minutes by N. Baer. Second by K. Wenner. Motion approved unanimously.

Meeting Summary:

- Received an update on the DNR's AIS summer learning sessions for counties and the Community-Based Social Marketing project.
- Reviewed and approved the Committee's research priorities to send to the Minnesota AIS Research Center (MAISRC) at the University of Minnesota to inform their biannual research needs assessment process.
- Received background information on the DNR's Invasive Aquatic Plant and Aquatic Plant Management programs from DNR program managers, Wendy Crowell and Jon Hansen.
 - The DNR recommends that when complex questions arise, people should consult with the program managers and local IAPM/APM specialists, early and often.
 - The Committee had two recommendations to DNR: (1) continue to improve coordination between the IAMP and APM programs and (2) facilitate meetings/workshops where DNR and local managers can share their experiences with managing invasive aquatic plants with other managers.
- Received updates on MAISRC's starry stonewort research from Dan Larkin, UMN Assistant Professor and Extension Specialist.

Motions & Actionable Items:

- **T. Wolbers** will clean up the edited research priorities document and send out to Committee members for one more review before **J. Stratton** signs the letter and forwards it to MAISRC. Motion by **T. Guetter**. Second by **J. Johnson**. Unanimous approval by Committee.
- **T. Wolbers** will send out to the group the Initial Response Plan for Starry Stonewort, which was put together by **W. Crowell**.
- **P. Hunsicker** will share with the Committee an electronic version of the document entitled, "Working with Resorts," which summarizes the work being done by Lake Vermilion, and Cass and Itasca counties.

Handouts*

- Statewide Aquatic Invasive Species Advisory Committee Legislative Priorities for 2019
- Statewide AIS Advisory Committee Research Priorities to be submitted to MAISRC
- Treatment Option for the Eradication of Limited-scale Zebra Mussel Infestations at Various Water Temperatures – a paper by MAISRC that was present at the recent Showcase event
- Chapter 6280 – Aquatic Plants and Nuisances
- "Working with Resorts" a summary of AIS prevention work being done with resorts on Lake Vermilion and in Cass and Itasca counties.

Committee Member Updates:

- **T. Guetter** finished their flowering rush treatments and is planning for next year. She shared a rapid response plan example on Basecamp. She is contracting with Ryan Wersel (?) with Mankato, to create a response plan for her.
- **D. Strong** has been working with the Lake Vermilion resort program. The Ely area invasives team has had a hard time connecting with all partners, but now meetings are scheduled to reconnect. Some excitement when a decontamination unit caught on fire this summer.
- **J. Boettcher** says one water plan is approved. Now the Carver County Water Management Organization is rolling out pieces of their 10 year plan and hoping to have it done by the end of the year. Three Rivers Park District is using carp solutions on Steger Lake and has removed 2,000 carp out of the 220 acre lake. At Auburn Lake they are using traps baited with corn. Unbelievable that there are so many carp in such small area. They will do aeration there this winter.
- **K. Wenner** says while ricing they found banded mystery snails in addition to Chinese mystery snails. Continuing their purple loosestrife survey efforts. They will have their decontamination unit running through waterfowl hunting season, as long as the snow holds out.
- **N. Baer** mentions his work with aquatic plant management at North Browns Lake. They are now planning for next year.
- **N. Phelps** mentions the Minnesota AIS Research Center (MAISRC) Showcase event that happened last week. They had 270 people attend with a cross-section of managers, lake associations, and everything in between. Provided a handout from a recently completed project by Jim Loma, the handout is the white paper version. His next project will be scaled up with low doses. This is an example of those incremental studies he spoke

of at the last meeting. **J. Stratton** says he wishes he could attend, but the Showcase conflicts with the Association of Minnesota Counties (AMC) annual meeting every year.

Committee member updates continued

- **J. Dauphinais** went to the Showcase and it was a great event. She shared some highlights: Dan's talk about the desiccation trials for starry stonewort and that the bulbils dried out fast. The hybrid watermilfoil talk showed that it flowered earlier, flowered more, and matted at the surface more, but had less stem density underwater. The Phragmites work by Sue Galatowitsch reviewed their statewide effort and the fact that eradication isn't necessarily off the table. They plan to set up control resources around the state. They are also looking to change its designation in the state to eradicate. Coon Creek Watershed District found their first infestation of Phragmites on Ham Lake, a small 50x50 foot patch. The University confirmed it within 2 days. They contracted with PLM to treat with imazapyr and glyphosate last week. Anoka conservation district agreed to follow up with manual removal and committed to address it for the next 10 years. Ham Lake hybrid watermilfoil treated with ProcellaCOR saw some milfoil persist, but no damage to native species. She will find out more tonight from a presentation by Patrick Selter.
- **J. Johnson** also attended the Showcase. The carp genetics project is both scary and fascinating. Had a good discussion with Thume and Ray Neuman about hybrid watermilfoil and genetic testing for verification. They are looking at different genotypes, reactions to herbicides, timing of growth, and invasiveness. Some strains may be more of a problem than Eurasian watermilfoil. He would love to see a concerted effort to assist with genetic testing and genotyping and how that informs management. For example, Pat Selter treated milfoil this summer, but the genotype there has a higher tolerance to the herbicide that was used there. Genetic information could improve effectiveness of management actions. If there is a funding issue for this type of work, he may bring it up to this group for discussion/support. He has been doing some late season Eurasian watermilfoil surveys and addressing some new infestations.
- **P. Thiede** is dealing with a fish passage for rock dam where the DNR permitted a dam on the Pine River, but apparently the county owns the dam. It's on Big Pine Lake. This season the county had trouble with an inspector who got into an altercation; the final analysis was that it was likely a bad day, but has the county re-evaluating how they hire and interview. Crow Wing County is looking forward to partnering with the University of Minnesota on how to strategically allocate inspectors. We will embrace that.
- **J. Stratton** says the on-site decontamination station visit was well attended. The AMC Environmental Committee was given the SAISAC legislative priorities list, which did make it on the list under water issues. It is on the docket, along with about 10 pages of different items. The AMC committee covers a wide variety of topics including water, soil, buffer, aggregate, recycling. He was given the opportunity to focus on AIS, a whole 10 minutes presentation. It is important that they hear it. They all have a skin on the game. AIS impacts the tax base and services. If the tax base drops because of invasive species, everyone else's taxes go up. It didn't make top 3 issues for this year, but it is on their radar. Thank you for all for the input! The list was an easy presentation to make. The one point he did make is what makes a deer more valuable than an ecosystem, as it relates to fines for deer hunting violation versus zebra mussel transport/introduction.
- **J. Johnson** adds one more highlight from the Showcase – Mike Verhoeven is compiling data on aquatic plant management to inform management.

DNR Updates

- Summer AIS Learning Sessions held for counties. **P. Hunsicker** says DNR conducted two sessions since the last Committee meeting. One at the on-site decontamination station at Lake Le Homme Dieu in Alexandria. Justin Swart talked about how it came to be. The county owns the property, the local technical school built the housing for the equipment, and now they are considering doing similar setups in other locations yet to be determined. There were about 20 people in attendance. During that session we also threw some rakes out and Mark Ranweiler helped with aquatic plant identification. A really good session. We also talked about monitoring protocols available online, including how to search for zebra mussels, searching public accesses by watercraft inspectors, and lake-wide meander searches. In Hackensack the session focused mainly on working with resorts (brought a few copies, will share electronically as well). Presentations from Jeff Lovgren, Emily Nelson, Rima Smith-Keprios, Linda Blake, and Bill Grantges. They receive funding through the Initiative Foundation. Each place is at a different stage, Lake Vermilion is ahead of the game. Cass is building on relationships. Itasca is just getting started – right now resorts just see it has extra work when they don't have extra time. DNR Trainer Carrie Maurer-Ackerman gave a presentation about how to support inspectors with extra training and support. **D. Jensen** talked about Habitattitude and rehoming unwanted pets. He shared some interesting information about crayfishes from schools. Spenser McGrew from Otter Tail County was at the Alexandria session and **P. Hunsicker** asked him if he could come to this Committee and talk about their docks and lifts registration program, he will be at the next meeting.
 - **J. Stratton** mentions they talked about re-signing the sign to read “free.” He asks, do you feel this effort is worth pursuing elsewhere? **P. Hunsicker** says it seems to be a success, with easy access for incoming and out-going boats. “Cleaning” is less daunting to boaters than “decontamination.” **D. Strong** mentions the unit at Burntside Lake, where people used to have to drive around them, but now they are no longer in the way of traffic. They advertised it as a free boat wash. **P. Hunsicker** mentions that Justin Swart has a tear-drop sign along the road, with an orange cone to attract the eye.
- **H. Wolf** also attended the Showcase. She is getting ready for the fall invasive species unit meeting. We will talk about a whole variety of stuff such as treatments, listing infested waters, etc.
- **T. Guetter** asks if the DNR is pursuing genetic testing in the water, even if you can't see it. **H. Wolf** says that eDNA is not a good diagnostic tool yet – you can find it, but what does that mean. There are a lot of variables.
- **J. Johnson** asks for an update on the new starry stonewort (SSW) infestations. **W. Crowell** says they used hydrothol and copper sulfate on Medicine Lake. The SWW is right in front of the launch and extended along the shore and near the sailboat area. There was about 15 acres only near the access and they surveyed the entire lake. They did the first treatment and did copper concentration monitoring. The max concentration was in the boat access, going for 1ppm. It appears the bulrush stand held the concentration in front of the launch. But further down the shore they didn't get as good of concentrations and also didn't get as good control. They went out 14 days later for a second treatment. Between treatments she had looked at pesticide label and concurred with the applicator they could go at a higher rate than the applicator originally thought. They stuck with the same rate at the launch, but used a higher rate near the sailboats. They will do possibly two or three more treatments, depending on how the plants look and respond. There is lots of monitoring and treatment going on. They got good control where boats were moving in and out and that

was a big concern about preventing the spread. On Pleasant Lake DNR Specialist Chris Jurek used a Go-Pro that has a GPS tracker to delineate the stand underwater while SCUBA diving, which worked surprisingly well. The DNR hired Steve McComas to hand pull using SCUBA gear, he agreed the breadcrumb GPS information from the Go-Pro was pretty good. He felt there were still some fragments and that a treatment should occur. She has set up a purchase for the treatment – chelated copper compound. Funded all by DNR through federal early response funds.

- **T. Guetter** asks, how many acres? **W. Crowell** responds there were 15 acres on Medicine and a very small area in Pleasant, about two 8x8ft areas. In Pleasant the plants were growing low below the surface, but in Medicine Kylie Cattoor (DNR Specialist) said they could see the boat tracks through the SSW. We are hoping we got on top of both to prevent the spread. **T. Guetter** asks, how much did it cost per acre? **W. Crowell** says it was about \$500 per treatment including labor for Medicine. She suggests they talk to Tim Plude (DNR Specialist out of Brainerd) who has experience from Wisconsin as well and Chris Jurek for cost details.
- **N. Baer** asks, wasn't there legislative appropriated funding for management for lake associations last year? **H. Wolf** clarifies there was a request for that in the last legislative session, but it did not go through. She adds on a similar note, if the surcharge was increased to support the DNR invasive species program, then grants would be reinstated. **N. Baer** clarifies his question, he was asking if there will be funding for next season. **H. Wolf** says no, not in this fiscal year. If the surcharge is increased the grants would be reinstated, but it wouldn't be until July 1 (next state fiscal year).

DNR Updates continued

- **P. Thiede** says there has been a high amount of slime or algae blooms this year. He has received a lot of calls this year in particular. **J. Johnson** asks, is it filamentous algae? It could be caused by the late ice off, because fertile sediments without rooted plant growth provides areas for filamentous algae to grow. It also depends on precipitation and runoff. **J. Hansen** says yes we gets lots of questions about that "snot." **D. Strong** says they had a late ice out, but a very quick turnover. J. Boettcher adds that he participated in fishing tournaments this May and there was already algae and 80 degree water temperatures in the southern region.
- **T. Wolbers** provided an update on the Community-Based Social Marketing (CBSM) project. We have been working with the contractor, Beyond Attitude Consulting and AZENTIVE, over the past month and a half. They have developed a literature review of nearly 100 academic and white paper studies on AIS pathways, audiences, behaviors, and risks. The top pathways included watercraft, anglers using bait, aquarium trade, water garden trade, and live seafood trade. Another consideration would be the movement of docks and lifts, even though there is very little literature available about that right now. We will share this information when it is finalized, it will be a helpful repository of current AIS information. We have also been developing a list of people that may participate on an expert panel, who will be able to fill in these gaps in knowledge, develop a long list of behaviors, and provide insight on the probability-impact analysis. The next step will be selecting audiences to target and conducting online surveys about the barriers and benefits of adopting desirable AIS prevention behaviors for those specific audiences.
- **T. Wolbers** also added the DNR had a successful invasive species presence at the State Fair in the DNR Building this year, where we handed out 12,000 drawstring backpacks with the "clean in, clean out" logo

and invasive species web link. We also handed out temporary tattoos with new invasive species designs. **T. Wolbers** passed around examples to share.

Committee's Research Priorities Discussion

- This discussion was captured in the editing of the document "Minnesota DNR's Statewide AIS Advisory Committee Research Priorities" letter to MAISRC.
- The Committee was urged to base their recommendations on MAISRC's priority categories and to pare the list down to this Committee's priorities to submit to MAISRC by the end of the week.
- **J. Boettcher** says we should deal with what's already here and not what is coming. We have limited resources. This deals with the proposed legislative priority to have mandatory inspection of boats entering into the state.
- **K. Wenner** says Phragmites was used to make decorative roosters that are being sold at Pier 1. Need to look at internet sales and how that is spreading invasive species.
- **J. Stratton** says we do not live in a bubble. Other things are coming.
- **T. Guetter** asks what needs to change, and what needs to happen? Why study it if we can't do anything about it. So what? Don't waste money.
- **J. Johnson** says some of the research suggestions might be more policy stuff rather than research. Is MAISRC interested in taking these kinds of policy-related issues on? **N. Phelps** says yes, it is of interest.
- **J. Johnson** says for the propagule study we could look at Hydrilla and other invasive plants, too. What does it take to make an infestation happen? Or when does it lead to a nuisance condition?
- **T. Guetter** says she has experience in letting curly leaf pondweed go because there wasn't enough to treat and it has turned into a \$60,000 treatment later on. Need to do something when you first find it.
- For the study to assess whether presence of diverse plant communities slows the rate of expansion of invasive plants, **J. Johnson** says research shows that AIS will get in despite a healthy native plant population, but does the native population help control where the invasive can go after becoming initially established? **D. Larkin** says where there are native plants, we see less invasive plants. But invasives can displace native plants. **J. Dauphinais** suggests language change to "slow the level of dominance."
- **J. Boettcher** wants to include moored boats in 4th bullet. Include zebra mussels.
- Members determined some topics could be moved to a "parking lot," where they can be proposed at a later time if needed. This included:
 - eDNA
 - Copper treatments
 - Fall treatments of emergent species. **J. Dauphinais** had mentioned this is already a best management practice.
- **T. Guetter** asks if they could do a 1-2 punch of herbicide treatment on curly leaf pondweed. Is that feasible? Fall treatments and spring treatments.
- Economic impacts: **J. Stratton** says you need this to get politicians on board; they need economic data. **N. Phelps** says he agrees that this is important and was tried last time. It will be probably on the list this

time. **J. Stratton** says it's all about property values and tax base. Looking at economics also has to include impact of visitors who come to recreate in MN.

- Relationship of native charophyte beds and starry stonewort study is similar to the first starry stonewort study; it should be combined with ecological impacts of starry stonewort, and listed under "impacts" category.
- A cleaned up version will be sent out ASAP by **T. Wolbers** so everyone can review before it is signed by **J. Stratton** and sent to MAISRC by the end of the week.

Motion to approve as edited, along with any necessary minor grammatical edits later, by T. Guetter and second by J. Johnson. Motion passes.

Invasive Aquatic Plant Management and Starry Stonewort Research Updates

Presentation by Wendy Crowell (DNR), Jon Hanson (DNR), and Dan Larkin (MAISRC)

IAPMPs and LVMPs: Permitting for Aquatic Invasive Species Control

Wendy Crowell, DNR Invasive Species Consultant

- Aquatic plants are owned by the state and managed by the DNR. Rules 6280 governs management of those plants.
- Two goals of the program – minimize harmful impacts and protect natural resources.
- AIS Specialists are stationed around the state. They review permit applications. They are the first point of contact to control aquatic invasive plants. What do you want to do? Why? You will need a map. Which herbicides do you intend to use? Have you gotten necessary signatures from landowners?
- Permit criteria: Invasive has to be there. Treatment method is selective. Minimize impacts to aquatic habitat. This is in rule.
- 15% limit of littoral zone treatment is in law. Permits can be issued that exceed the 15% by obtaining a variance. Variance requires a Lake Vegetation Management Plan (LVMP). 15% is cumulative for invasives and aquatic plant management (APM). Specialists from both programs work together to determine final amount.
- A LVMP can authorize a variance, but the control methods need to be evaluated to ascertain if the goals of the variance were met. LVMP directs the issuance of IAPM/APM permits.
- Criteria for variance: increase or protect native plants, prevent the spread of invasive aquatic plants, further research, consider if there is an alternative to the variance.
- Can get variance to provide riparian access or enhance recreational use on public waters.
- LVMP must contain: lake description, water quality, plant community, public participation process, goals for management of aquatic plants, monitoring if the plan proposes actions that need to be evaluated.
- LVMP can include maps of lake and location of invasive aquatic plants. Describe nuisance conditions: can't boat, swim or fish, etc. Ecological problems might be water clarity after curly leaf pondweed dies off. Goals could be to improve water quality, increase native vegetation, etc. Answer how will native plants be enhanced.
- Monitoring can require professional help. Can be expensive.

- LVMPs last 5 years typically. Will be evaluated to determine if goals were met and if future treatments should be allowed.
- Deciding on 15% can seem to be “not transparent” to lake groups. One way to get past the 15% limit is to do an LVMP and ask for a variance. DNR understands that this is a hot topic – conflict between needs of APM and needs of IAPM.
- Organizations can’t just make up their own LVMP, they need to coordinate with DNR.

Aquatic Plant Management (APM) Program

Jon Hansen, DNR Aquatic Plant Management Program Consultant

- Shares copies of APM rules.
- In law that the state owns aquatic plants. Program looks at the benefits of healthy aquatic plant habitat.
- They manage property owner’s desires/expectations with reality.
- Goal is to balance property rights of owners with the needs of the public resource.
- 103G.615 is the statute to create rules, issue permits, and create a fee structure.
- Rules have been evolving based on newest knowledge available.
- Issuance of permits for lake shore owner access, to enhance recreational use, to manage water levels, to control invasives, to protect or improve habitat.
- Anytime a pesticide is used, you need a DNR permit.
- Control of floating leaf and emergent vegetation is case specific.
- 1 pesticide enforcement specialist in the DNR (MDA funded), 7.5 specialists, and 2 shared technicians.
- Fees for permits help support the program.
- 50% of inspections result in some reduction from what was requested. About 1,200 new permit requests per year. Approximately 5,000 permits issued each year.
- Generally APM permits are near-shore (next to property).
- Discussion
 - Disposal of coontail found on the beach is fine. Don’t transport it on a roadway.
 - Conflicts with the desires of some property owners to remove emergent native vegetation for lake access and the desires of others to remove invasives, and it is sometimes difficult to get a permit to treat for invasive because of the multiple desires that add up and respecting the 15% rule. Trying to figure it out within the DNR. Specialists are busy, and they need criteria set up to handle the workload. If it’s a special situation, we can talk about it. Might be a variance with an LVMP.
 - Response plans and looking at risk-reward of treatment/management action. Have conversation about this. Need to look at effectiveness of treatment and if the invasive will take over.
 - If you see a violation, you can contact an APM Specialist or a Conservation Officer.
 - There is a fear out there that if property owner skips a year of treatment, will they lose their spot to get permission next year. Applicators sometimes drive conversation. Talk with DNR about your situation.

Starry Stonewort Research Updates

Dan Larkin, University of Minnesota Assistant Professor and Extension Specialist

- Starry stonewort was found in North America in 1974; in MN in 2015.
- 2018 – Discoveries in Medicine, Pleasant and Wolf lakes.
- It prefers high pH, high conductivity (Aa, Mg), and wide range of trophic states (N, P).
- The model looking at where it might show up generally matches with real-world discoveries in MN.
- Desiccation tolerance: tested bulbils, small clumps and large clumps. See if we can sprout bulbils or rehydrate fragments. Bulbils dead after 4 hours of drying. Fragments depend on size. Small clump dead after 24 hours. Larger clumps (size of softball) dead after 48-72 hours. This tells us that reasonable effort will prevent spread. Starry stonewort is a visible material compared to microscopic zebra mussel veligers.
- What are the ecological impacts of starry stonewort? There is high uncertainty; not enough research done on this. Only one study documenting ecological impacts. Set up long-term monitoring plots to begin to quantify ecological impacts.
- Discussion
 - What determines where starry stonewort is most abundant? Time, sediment type, etc. Don't know right now.
 - Algaecide works on algae, but not on bulbils. Can reduce biomass, but bulbils remain viable. Need sustained multi-pronged efforts with lots of innovation and experimentation. Process is just beginning with starry stonewort.
 - Bulbils are found later in season – August, so not visible at other times. This is why Starry Trek is in August.
 - Need basic information on performance of different algaecides. Currently doing studies on that.
 - Why is starry stonewort endangered in Europe? Likely due to habitat destruction and water quality degradation.
 - Level of concern by researchers for starry stonewort ramped up when it appeared in WI and MN.
 - Has anyone used winter drawdowns? WI did some research. Paper will come out soon. The question is, can you de-water enough to have an impact.
 - A diving duck in Europe will eat bulbils – Red-Crested Pochard. Do waterfowl here feed on bulbils? Good question, don't have that information yet.
 - Not good data from Michigan because they haven't concentrated on vouchering reports.
 - Only male plants in US. So no spores. That's good news. Just clonal spread through bulbils.

Additional questions about IAPM

- Can DNR host workshops on management with managers, applicators, lake associations, etc.? **T. Guetter** and **W. Crowell** can help put something together.

Additional Discussions

- Other info: Civic governance projects in Ramsey and Cass County. New Infestation Response Plan (NIRP) already sent out to group. Used it with zebra mussel infestations. Jeff Forester proposed giving a presentation to this Committee after the election. November, perhaps. Next available date after that would be January.
- Since the research priority discussion went longer than planned, the Committee decided to eliminate the sub-committee discussion portion of the agenda; and instead start discussions online via Basecamp. There is also a conference call option, let DNR staff know and they can set it up. If necessary, discussions can be held in October.
- Initial response plan for starry stonewort. Up on screen. Used to confirm, communicate and respond. Duck's feet paddling under water. What happens that public doesn't see. Will send form out. Product of request from Committee. **W. Crowell** put it together. What about timeline? My definition of rapid is different than yours. Can we mention timeline expectation in this document?

Adjournment at 2:50 p.m.

Next Meeting to be held at the MN DNR Sauk Rapids Office, 10:00AM-3:00PM, October 25, 2018. On the agenda for the next meeting is Spencer McGrew with Otter Tail County to talk about their dock and lift registration ordinance.