

- Exposure times are too small for effective 2,4-d control of EWM
- Fisheries (Roberts)
 - Fishery is exceptional, and fishing was good post-drawdown
 - Preliminary GLIFWC 2014 walleye electrofishing survey results indicate another exceptional year for walleye. The young-of-year (<12 inches) year class appears strong. Final results will be available when the official data exchange occurs.
 - *Did drawdown reduce bluegill populations in a manner that could increase carp, similar to Clam Lake?* We don't know, but the 2016 comprehensive fishery survey could provide some answers. Anecdotally, the 2014 bluegill size structure was larger.
 - (Handout: River Segments for Open Water Spearing and Netting) Tribal spearing occurs in the Totogatic River coming into the Minong Flowage, and in 27 years of possible spearing the following occurred:
 - 10 years spearing actually happened
 - 6 of those 10 years resulted in a harvest
 - The harvest never reached quota
 - Explanation on relationship between fishery and dissolved oxygen (Handouts: 2012 Dissolved Oxygen Profile with Depth Graph and *Understanding Lake Data* publication). Dissolved oxygen decreases with depth because the deeper water is cut off from the atmosphere, and temperature/density differences cause layers of water (epilimnion – top, metalimnion/thermocline – middle, and hypolimnion – bottom water layers) to form that prevent vertical mixing. When a lake is deep enough it “stratifies” to form these layers. Minong Flowage stratifies in the deep hole near the dam, as evidenced by the graph. The deep, most dense water is on the bottom and has the least oxygen. Roberts chose a drought year to analyze, and there was still plenty of oxygen distributed throughout the water column for fish, although the hypolimnion (15+ feet) did lose oxygen by July. This is normal and expected. Walleye are able to move throughout the water column to feed and survive, and thus they will do fine with the Minong oxygen conditions, even during difficult times like drought years.
 - *Was winter drawdown oxygen satisfactory for fish?* Yes, even in shallower water the winter drawdown dissolved oxygen remained high enough throughout the water column for fish to survive. (Attachment: 2013-2014 Winter Drawdown Dissolved Oxygen Results)
 - Maxwell is interested in demoing fish sticks at his property
- Water quality (Blumer & Toshner)
 - No water quality effects from drawdown

Do we need additional information before delving into management planning?

- Annual management and results summary (i.e. EWM presence, acres treated with method, and results in table and graph formats)
- CI Biobase bathymetry/volume results – will be continued into 2015

- Verify regulatory aspects for drawdown, including if an EA is necessary
- Whole Serenity Bay – outside rice area- dye study – spring or fall 2015
 - Is this realistic? (i.e. permissible?)

Management options – with pros, cons, and uncertainties

- Do nothing
 - 2015 option until some threshold or criteria is triggered
 - Distribution and abundance will increase to historic levels (i.e. 300+ acres EWM)
- Manual removal
 - Not practical – couldn't do it well enough to be effective. Need a lot of people who are good at it.
 - Water clarity, siltiness, and debris are a safety issue
 - Access concerns
 - It works elsewhere. People are making a business of it – DASH. (Attachment: Hydraulic Conveyor System Powerpoint Presentation pdf)
 - Small scale strategy?
 - Hard bottom?
 - Fragmentation concerns
- Herbicides
 - St. Croix tribe does not support chemical control
 - 2012 tissue proposal for herbicide detection – revisit?
 - Can dye concentration be correlated to herbicide concentration? Yes.
 - Do nothing until a large-scale treatment becomes necessary
 - Restore vs. control vs. maintain?
 - No herbicide is completely safe. Fisheries concerns exist for all of them; it's a matter of concentration and exposure time.
 - What about bioaccumulation?
 - Individual spot treatments not sufficient for 2,4-d to be effective. Diquat may be a better option. Math.
 - Diquat classified as broad spectrum herbicide that kills most plants and just burns top off of EWM. From a selectivity point of view via research, this is not true. It can be selective. Regrowth remains uncertain – similar to 2,4-d and triclopyr. Don't want to do large-scale treatments with it. Chemical fact sheet concerns – fisheries. Causes plants to increase respiration, which can remove DO for large-scale treatments. 10 acre max treatment area. Fall timing to reduce risk to fish larvae.
 - Triclopyr is expensive. Much lower drinking water and irrigation restriction (1 ppb) so may not be possible for entire summer.
 - "Contact" concept not supported by data.

- Endothal can be effective and being used in combination with 2,4-d and triclopyr. Needs exposure time similar to 2,4-d so not effective for spot treatments either.
- Herbicide concentration testing required
- Drawdown
 - 2003 & 2007 Roesler letter with concerns – some are still valid and some are not
 - Mussels and other wildlife impacts – uncertain
 - Matt Berg's mussel survey data are available but not the final report
 - Positive EWM control
 - Beneficial to wild rice (first year)
 - Easy to do but weather drives effectiveness (frost depth)
 - Future drawdown would probably be less drastic in depth and duration
 - Lost power generation costs – is this verified?
 - Contact Washburn County or Renewable World Energies to better understand this issue
 - County decision as dam owner – highway and dam committee and full county board approval needed. Need to understand their position on water reg application.
 - Past public meeting generated controversy – contested case hearing possible
 - Public controversy should/could be less next time around
 - EA not required - verify
 - Regulatory approach -1) amend dam permit order to allow for min/max greater than 1 foot (like Chippewa Flowage) or 2) separate dam drawdown permit under Chapter 31.
 - 1-foot range not new
 - Isn't water level management commonly used for AIS, fisheries, and other activities elsewhere?
 - Impacts to Cranberry and Gilmore Lakes
 - Consider primary and secondary approaches
 - Winter timing to avoid recreational and woody debris concerns
 - Other winter drawdowns don't have woody debris issues

What are thresholds for engaging management or changing methods?

- *How do we define "spots"? Lakewide? In a certain area?*
- *Identify areas of lake that are not priority and/or cannot be effectively treated*
- *Manage for navigational access and recreational use?*

Future meeting(s)

- 01/28/2015 1:00-3:00 p.m. at Spooner DNR
- A sub-group may meet in the meantime
- Draft plan outline will be shared with everyone as soon as its available

01/28/2015 Agenda – Minong Flowage Stakeholders' Meeting

Purpose: review draft Minong Flowage Aquatic Plant Management (APM) Plan and provide feedback.

- 1:00 p.m. Agenda review and introductions
- Review stakeholder group concept and purpose (Toshner)*
- 1:15 p.m. Review draft APM Plan (Dan Maxwell – MFA and Dave Blumer – LEAPS)
- First impressions of the draft Plan?*
- What additional information is necessary for 2015 management to occur?*
- 2:45 p.m. Next steps
- 3:00 p.m. Wrap-up

DRAFT

01/28/2015 Notes – Minong Flowage Stakeholders' Meeting

Purpose: review draft Minong Flowage Aquatic Plant Management (APM) Plan and provide feedback.

Agenda review and introductions

- Attendees: Bob Budden, Steve Johnson (by phone), Wayne Johnson & Dan Maxwell (Minong Flowage Association - MFA); Lisa David (Great Lakes Indian Fish & Wildlife Commission - GLIFWC); Dave Blumer (Lake Education & Planning Services – LEAPS); Lisa Burns (Washburn County); Frank Dallam, Craig Roberts, Pamela Toshner & Scott Van Egeren (by phone) (DNR).
 - Jeremy Bloomquist (St. Croix Tribe) could not attend but sent an email to “reaffirm that the St. Croix Tribe does not support herbicide usage.”
- Review stakeholder group concept and purpose (Toshner): The concept of a stakeholder meeting was suggested going into the 5 Dec 2013 meeting, and there was consensus to move it forward. Along with that the group decided:
 - 2014 would be a study year on the Minong Flowage
 - The stakeholder group would cooperatively work to monitor and then plan for the Flowage
 - The outcome of the management plan is uncertain at this time, *but the purpose of this meeting was to review the draft management plan.*

Review draft APM Plan (Dan Maxwell – MFA and Dave Blumer – LEAPS)

- “Stakeholder Management Zone” includes Serenity Bay and Totagatic River wild rice beds. The MFA proposes no active management in this area but will support efforts of other stakeholders.
- “Viable” management strategies were presented that were not really so. For example micro-treatments <1 acre should not be proposed, and aerial herbicide application is unrealistic.
- Comprehensive and thoughtful DASH/manual removal investigation and description in plan. It costs \$6K/acre (much more than herbicides). It has merit in some areas (e.g. off-shore beds) and not in others (e.g. stumpy, mucky Serenity Bay).
- 35% whole-lake definition is arbitrary. There is existing math to calculate whole-lake treatments.
- What makes drawdown viable? Winter only drawdown is an option. What about fall?
- What triggers pre- and post-monitoring? The treatment scale triggers this – whole-lake or large-scale treatments would require pre-post. Large-scale is administratively defined as >10 acres or 10% of the area 10 feet or less. Grant funding can also drive pre-post monitoring requirements.
- MFA has ~\$18K to manage in 2015; this is their own funding, not grants.
- What is the best timing for a diquat application?

First impressions of the draft Plan?

What additional information is necessary for 2015 management to occur?

Next steps

- February 6: draft APM Plan review comments to Dave Blumer
- March 13: "final" draft APM Plan shared back with group

Spring 2015 chemical control permit application simultaneously moving forward and will be reviewed quasi-independently of plan

04/15/2015 Agenda – Minong Flowage Stakeholders' Meeting

Purpose: flesh out 2015 management strategy and next steps.

1:00 p.m. Agenda review and introductions

Review stakeholder group concept and purpose: Where are we going from here, and would we like to continue to meet, perhaps less often? (all – think about it and discuss at end of meeting)

1:15 p.m. Review 2015 Chemical Control Permit (Dan Maxwell – MFA and Dave Blumer – LEAPS)

Are there concerns, and can they be addressed? How?

Next steps

2:15 p.m. 2015-2019 APM Plan status (Maxwell and Blumer)

When will updated version be available?

2:30 p.m. Other updates

Large-scale dye study

Fisheries

Other

2:45 p.m. Future of stakeholder group

Tour

Next meeting date

3:00 p.m. Wrap-up

Minong Flowage APM Plan Update Review
1/28/2015

Comments on the APM Plan Update

- P.6 – Include an estimate of the percentage of the lake that is typically littoral (able to grow plants) in the description. The average littoral area based on P-I surveys could be used. ✓
- P. 10 – Does MFA accept responsibility for Cranberry Flowage? ✓
- P. 11 – You hint at the impact of over-abundance of plants on fisheries. Does the distribution of plants in the littoral zone of Minong Flowage support that this may be an issue? What does the local fish biologist think? ✓
- P.12 – You hint that the drawdown likely had impacts to mussel species. Was there any pre-post drawdown survey work done? ✓
- P.14 – The littoral zone is the number of points less than the max depth of plant growth, not the number of points with plants. ✓
- P.14 – The previous management section contains little detail other than the acreage treated each year. Where did the treatments occur? What concentration and formulation of herbicide was applied? How long was the herbicide exposure? What were the impacts on EWM each year? All of these questions could lead to improvements in treatment strategies. I realize that this is a lot to include in one document, but you could reference treatment reports from each year and then make them available. ✓
- Table 1 – What is the difference between the EWM survey and P-I survey in summer of 2014? Include this in the methods description on page 22.
 - Pre-post surveys are not needed each year. Pre-treatment (year 1) should be compared to post-treatment (year 2).
- P. 17 – The section on management impacts caused by the drawdown is written as if the drawdown did not decrease EWM, when in fact it did control EWM very well. I would suggest clearly distinguishing the effects of the drawdown from April through September of 2013 to those of the overwinter portion of the drawdown. A spring to fall drawdown wouldn't be expected to control EWM, while a winter drawdown would. ✓
- P.24 – Include a bar graph of CLP littoral frequencies for 2008, 2012 and 2014 following the format of figure 7 for EWM. ✓
- P. 27 - A table or figure illustrating the littoral frequencies for all species in 2008, 2012 and 2014 should be included for easy visualization. There is no need for a different table for each year. Make one table with all species as a row and each year as a column. ✓
- P.44 – What was the density of weevils (#/stem) found each year in the flowage? How does this compare with the number needed for EWM control? ✓

Goals, Objectives and Actions

- Goal 1, Objective 1 – Whole-lake P-I surveys should include this area. Without this there will be no way to evaluate the impact of the “no management” strategy. This information could be used to compare to areas that had been managed.

- How were the metric targets in Goal 2 objective 1 determined? For instance why will the littoral zone and depth of plant growth decrease?
- The use of drawdown is explicitly excluded (but no other management techniques). It would be better to determine under what conditions a drawdown would be the most effective option at reaching the goal.
- Pre-post treatment monitoring should be measured from year to year. Collecting both within a year tells us little about efficacy or impacts.
- Goal 3, Action 1, Alternatives 2-3 include quantitative plant monitoring. What are the quantitative targets for treatment efficacy (x% change in frequency of EWM) and what non-target impacts are acceptable?
- Goal 3, Action 3 – has DNR agreed to do dye study in any year? Is there a deadline to this offer?
- Goal 3, Objective 3 – it should be Golden Sands RC&D.
 - How does weevil stocking mesh with herbicide control? Does it make sense to spend a lot of time rearing/stocking weevils if herbicide applications will target EWM or vice versa? Need more discussion on how the two goals interact.
- Goal 3, Objective 4 – why treat CLP with diquat instead of endothall? This might be alright, but it seems like endothall has a proven track record for CLP control.
 - Will there be multiple years of treatment/management of the same area to deal with CLP resprouting from turions?
- Goal 3, Objective 6 – purple loosestrife should be removed before it goes to seed.
 - Is there enough loosestrife that beetle control is warranted?
- Goal 4, Objective 3 – What will the CLMN AIS volunteers be looking for and how will the data be used? Will the data be used to improve EWM/CLP maps or are they only looking for new AIS (; if so which)?

From: [Dan Maxwell](#)
To: [DNR - Toshner, Pamela](#)
Cc: [MFA / Blumer, Dave](#)
Subject: Re: Public feedback to Minong APM plan
Date: Wednesday, July 22, 2015 3:36:43 PM
Attachments: [Chesney.pdf](#)
[Frederick.pdf](#)
[Johnson, Harlan.pdf](#)
[Schrieffer.pdf](#)
[Schroetter.pdf](#)
[Wilcox.pdf](#)

Hi, Pamela:

I was going to let the non-accusation accusation slide on by, but of course I can't. However, my viewpoint has changed as the day progressed.

I prefer open and honest candor. Thus, if you are wondering if we are trying to be coy on a topic or issue, I would much rather hear about it so it can be addressed than have you think it, but say nothing. So... thanks for mentioning it.

If you think greater detail on public feedback is important, then it is important to us. Inserting additional comments should be easy enough to do, although there simply isn't much to work with, as you will see below.

Regarding additional public comments from the pre-Annual Meeting call for comments, and/or the Annual Meeting discussions, my email system eliminates my messages at 30 days, thus I have scanned and attached some items that I had printed and saved. What I recall, or found in my notes is summarized below.

- APM rough draft public input - Public Feedback: You flagged the comments from Ted LeVin and Scott Pap in the email trail below. You also have Lisa David's and Craig Roberts' comments.
- .
- MFA Annual meeting - general discussion: You would think that I could just review the minutes of the meeting to refresh my memory. You would be thinking incorrectly. Bill Peck sent them to me for review and board approval. I've been so busy lately that I didn't get around to reviewing (or saving) them and my 30 day email window deleted them. Bill will be sending me another copy in the next day, or so. Other than a few "clarifying questions", the biggest issue I recall was just confusion over whether the 200 page document was our "action plan", or just our "options for possible action", which we clarified as the latter. One member of the audience was particularly apprehensive about "draw-down plans". His neighbor encountered significant expense as a result of the 2013 drawdown and this will lead to anxiety towards future drawdowns. We explained that there isn't any current formal plan for another drawdown, but that such an action might be needed and that all aspects would be thoroughly reviewed and publicized for discussions prior to implementation. We also reiterated our plan to seek input from our MFA members as to specific issues via a "Constant Contact survey" this summer.
- .
- Charles Chesney - MFA member and former Board Member of the Cranberry Lake/Flowage Association: Charles attended the June 13th Annual Meeting. His primary interest is the Cranberry Flowage aspect of our plans and efforts because his property is on the Cranberry Flowage. He was quite complimentary of our efforts. He has high hopes that we will bring better EWM control to that body of water and would like to see us include Cranberry Lake property owners, too. His email is referencing the DASH & APM demonstrations.
- .

- Other Cranberry Lake/Flowage contacts: Steve Schieffer, Larry Carlson, Bob Fritzke, Ellen Codner, and Brad White had varying degrees of contact with me regarding the APM Plan and the DASH & APM demonstration. I get the distinct impression that they all hope for MFA support in controlling EWM, but are not willing to lead the additional effort. However, the communications thus far are a great start on a long path.
- .
- Delon Schroetter - MFA member: He attended the June 13th Annual Meeting and was complimentary to our efforts on behalf of Minong property owners. His email was initiated from the DASH & APM demonstrations occurring at that time. He asked me to stop by his dock and verify if his aquatic plans were EWM. They were not EWM.
- .
- Harlan Johnson - MFA member: His message is complimentary to our over-all efforts.
- .
- Jeff Wilcox - MFA member: His interest is in identifying hazards on the lake, but I believe it was generated by our improved communications efforts regarding the Annual Meeting, APM plan and the DASH & APM demonstration.
- .
- Greg Frederick - Likely new Minong Flowage property owner: His email conversation with Dave Blumer is attached, but he also called me for additional details about the lake. We spent about 45 minutes on the phone on ~ ~ July 1st. As you can see in the email, he specifically used the APM plan in his property purchase research. I had a similar discussion with another fellow a couple months ago. He hadn't seen the APM plan rough draft yet, but I directed him to it, and he sounded like the type who would go right to it.
- .
- Karen Turnquist - MFA member: I don't have any documents from her, but I know her well and noticed that she went out of her way after the Annual Meeting to meet Dave Blumer. She had read the entire APM document (she is technical by nature and training) and wanted to compliment Dave for his thorough document. She, too, was confused about "whether the 200 page document was our "action plan", or just our "options for possible action", which was clarified during the meeting. I think using the word "Plan" in the title of the document is misleading to the casual reader.

Well, that's all I've got. I trust there is a few usable nuggets up there. I leave it up to Dave to add the revisions to the main document.

Best regards,
 Dan Maxwell
 Minong Flowage Assoc. - President
 612/817-8257 cell

From: "Pamela J Toshner - DNR" <Pamela.Toshner@wisconsin.gov>
To: "dan maxwell" <dan.maxwell@comcast.net>
Cc: "David Blumer (dblumerleaps@gmail.com)" <dblumerleaps@gmail.com>
Sent: Wednesday, July 22, 2015 8:56:04 AM
Subject: FW: Public feedback to Newsletter.

Here are the comments I saw early on. Sorry to say this in an email, but the omission of these comments from the Plan is a red flag to me. I'm not going to accuse anyone of purposeful omission, but please be sure to reflect ALL the public comments in the Plan – for everyone's sake. Nothing gets constituents more upset than being ignored.

Thanks!

We are committed to service excellence.

Visit our survey at <http://dnr.wi.gov/customersurvey> to evaluate how I did.

Pamela Toshner

Phone: (715) 635-4073 Desk (715) 795-0102 Mobile

pamela.toshner@wi.gov

From: Dan Maxwell [mailto:dan.maxwell@comcast.net]

Sent: Monday, April 13, 2015 11:37 AM

To: Toshner, Pamela J - DNR

Cc: MFA - Blumer, Dave; MFA - Johnson, Steve; Sundeen, Mark R - DNR

Subject: Public feedback to Newsletter.

Greetings to Pamela and all:

An email I just sent to our board last Saturday is directly below. Under that is the two comments we got back from our Newsletter broadcast, which covered about 300 property owners. I asked for comments no later than this coming Friday, so maybe a few will trickle in, but I'm not holding my breath.

See ya on Wednesday.

Dan

Email to MFA board sent on April 11th

Greetings,

For those who are wondering, our Newsletter went out in various forms around April 1st.

- Constant Contact to the majority of MFA members and non-member property owners for which we have email addresses
- Snail-mailed paper copies to MFA members and non-member property owners who don't have email addresses in our system
- Emailed to a few Cranberry Flowage and Cranberry Lake folks and Minong Town Lakes members.
- Snail-mailed to about 60 Cranberry Flowage folks via addresses gleaned from a property owner database (thanks, Bob!).

We got two responses almost immediately from Scott Pap & Ted LeVin. I have gotten no other feedback since.

Reminder: Our next Board meeting is 1 week from today. I hope to issue an agenda tomorrow, or Monday.

It should be an interesting meeting. We have a Stakeholders meeting this Wednesday that should bring our APM plan's loose ends to fruition.

Best regards,