A photograph of three fluffy brown ducklings swimming in blue water. The ducklings are positioned in the center of the frame, with one slightly behind the other two. The water is a deep blue with some ripples. A white rectangular box is overlaid on the bottom right of the image, containing the text.

**Welcome to the
Archibald Lake Association
EWM Meeting**



2009 - Archibald Lake Association Eurasian Water Milfoil Meeting



Agenda

Saturday August 15th, 2008 9:00am

- | | |
|-------------------------------------|------------------------|
| 1. Call to Order: | Dick Rankin |
| 2. Recognition | Dick Rankin |
| 3. EWM History/Plant Survey | Steve Fleming |
| 4. Actions Since Finding EWM | Steve Fleming |
| 5. Options for control | Kevin Springob |
| 6. Recommendations | Steve Fleming |
| Budget / Grant | Steve Fleming |
| 7. Discussion | ALL |
| 8. Direction moving forward | Membership Vote |



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Board of Directors –

- Dick Rankin (President)
- Steve Fleming (VP / APMP)
- Gary Miller (Treasurer)
- Kathy Wiggins (Secretary)
- Cathy Lindeman (Membership / Social))
- Betsy Nock (CB/CW)
- Tim Counihan (Water Quality)
- Tim McGuire (Community Rel)
- Jim Weyers (Community Rel)

Aquatic Plan Mgmt Team

- Steve Fleming
- Cathy Lindeman
- Matt Marty
- Betsy Nock
- Kevin Springob



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Call to Order –

Dick Rankin

Welcome to the Archibald Lake Special Meeting on Eurasian Water Milfoil (EWM)

- **Thank you for taking time to attend, participate, and help make decisions**
- **There are 3 reason for this meeting**
 - Share information with respect to what has been done / learned regarding EWM since finding it
 - Get your inputs, guidance and help for future plans
 - Make a decision with respect to how to move forward
- **Request for this meeting**
 - Please save your questions and comments until the end of all the materials
 - We will take all the time necessary to discuss each topic and raise issues at the end.

Thanks again for attending and we look forward to the discussions / inputs



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Recognition

Dick Rankin

First of all we want to give a little recognition

- 1. Thanks to Chris and Tish Bordeaux for volunteering to host the picnic! Please attend the picnic today if you can.**
- 2. Thanks to Bill Hammen for building the donation box at the landing!**
- 3. Thanks to Larry Market and Ted Albert for coordinating the golf outing!**
- 4. Thanks to Chris Bordeaux for redoing the sign at the landing!**
- 5. Thanks Tim Counihan for leading 2 successful fund raising events!**

This Organization Runs on Volunteers....THANKS!



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EWM History / Plant Survey

Steve Fleming

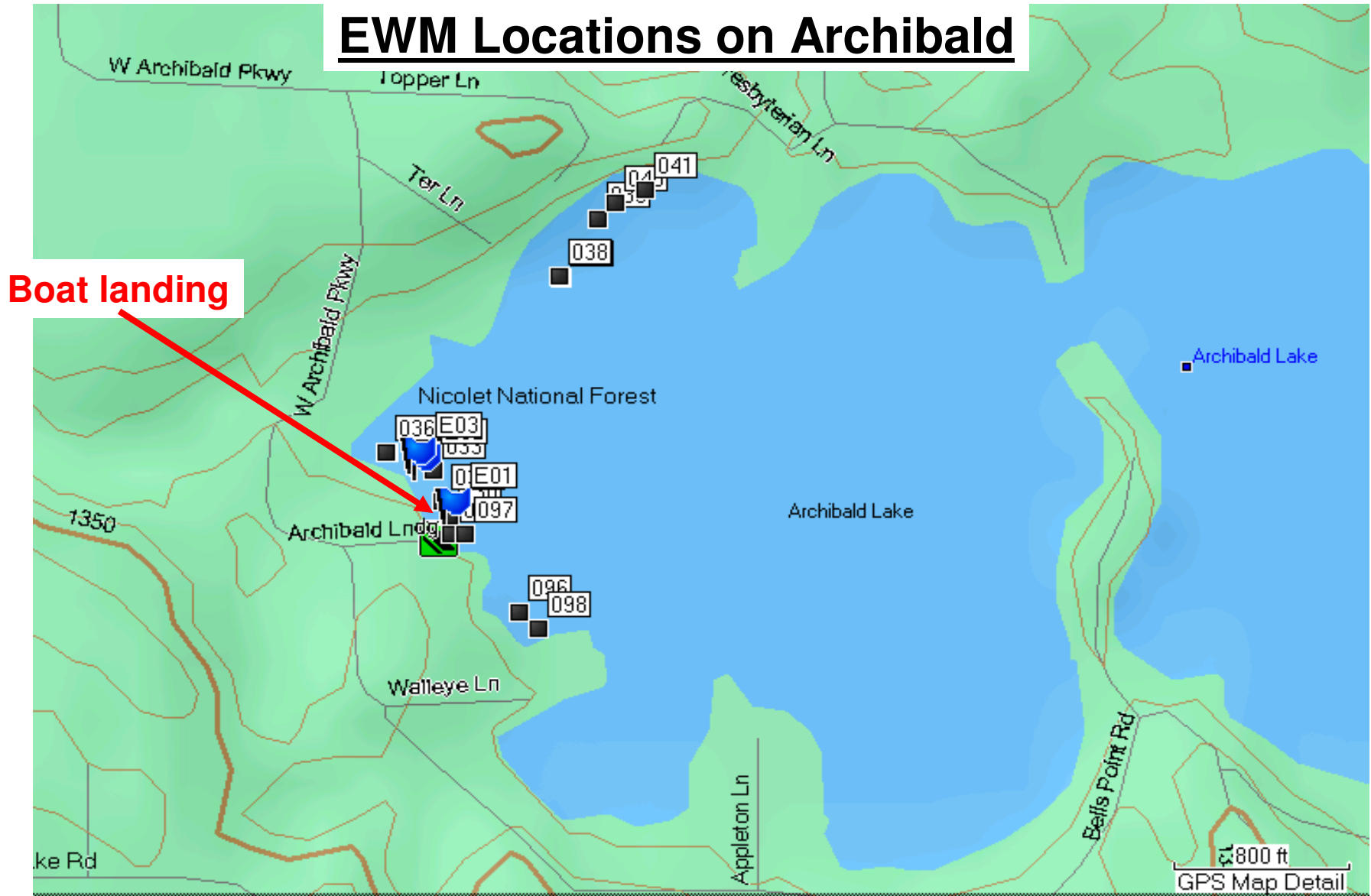
- **June 25th, 2009 - Comprehensive plant survey completed**
- **Lakeland Biologist Findings-**
 - **18 Locations where Eurasian Water Milfoil (EWM) has infested.** *“This exotic plant was previously not identified in Archibald Lake and can become a serious threat.” Next page has pictures of locations.*
 - **Flowering rush is spreading** – *“The threat of Flowering Rush is serious to Archibald Lake because of the depth this plant is found growing.”*
 - **The good news** – *“The plant survey shows Archibald Lake to be in very good health. A large variety of native beneficial aquatic vegetation was identified” And, we caught the EWM infestation very early!*
- **Summary EWM recommendation:** *“Lakeland Biologists recommends immediate attention on eradicating the Eurasian Water Milfoil.”*
- *This recommendation is consistent with DNR, other lakes, and other consulting firm.*



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EWM Locations on Archibald





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Actions Since Finding EWM?

Steve Fleming

- **ALA Annual meeting** – Got approval from membership to focus all our efforts on EWM. Total lake Aquatic Plant Management plan is temporarily on hold.
- **Aquatic Plant Management Team Research**
 - **Maiden** – Found EWM in 2008. Hand pulled during first year. Later found more. Chemically treated in June, 2009. Will redo survey in August 2009.
 - **Wheeler** – Found larger EWM infestation in 2007. Began chemical treatment immediately. Lake bottom provides for faster spreading
 - **Big Sand (Vilas County)** – Found EWM over 10 years ago. Formed a “belt-way way layer around the lake thick enough that a person could almost walk on it.” Treated for first time in 2008 / 2009. Total treatment cost to date is \$180,000. “Still need to spend more to control”.
- Researched the possibility of quarantine / buoys
- Researched consulting firm recommendations
- Researched options with WI, MN, and University Technical Experts
- Requested options / quotes from consulting firms.
- Aug 1, Presented to ALA Board – Approved Plan & Grant Application
- Aug 10, received Grant Approval from WI DNR



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Options for Control of EWM

Kevin Springob

Hand pulling- Pull out existing plants with trained individuals

Pros:

- Non-chemical approach
- Little or no cost if we can train people adequately

Cons:

- Entire plant needs to be removed, including the root. Very difficult to get entire plant.
- Also difficult to not lose plant fragments which may float to other areas and establish new plants
- Without proper experience and methodology you can do more harm than good



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Options for Control of EWM

Kevin Springob

(Continued)

Weevils – Introduce a naturally occurring bug that eats EWM

Pros:

- Biological control using a native weevil
- In some cases, weevils can effectively reduce EWM abundance

Cons:

- Effectiveness of weevils is extremely variable and depends on many factors including depth of EWM, abundance and density of EWM infestations, and predation by fish



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Options for Control of EWM

Kevin Springob

(Continued)

Cutting – Buy or rent machinery to cut plants below the surface so they do not interfere with lake activities

Pros:

- Non-chemical approach
- Could possibly control other lake plants, not just EWM

Cons:

- Does not control the plant, just the surface growth. Plant still spreads
- Cutting results in fragments floating to new locations and potentially spreading the infestation
- If renting machinery, could bring in other invasives
- Cutting can be costly and must be done on a regular basis



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Options for Control of EWM

Kevin Springob

(continued)

Aquatic Vegetation Mats - Deploy mats to shade out vegetation and kill it. Not widely used but is an option.

Pros:

- Non-chemical approach

Cons:

- Not widely used or successful for EWM
- Without regular maintenance aquatic plants may quickly colonize the mat.
- Non selective approach will kill any vegetation under the mat.



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Options for Control of EWM

Kevin Springob

(continued)

Chemical Treatment - This is the preferred method for EWM by WI DNR, other lakes, and consulting firms.

Pros:

- Easy to apply
- Can precisely target infestations and minimize damage to non-target areas of native plants
- Non-toxic to humans and animals

Cons:

- Can be costly depending on size of infestation. (\$880 / acre)
- Does not produce 100% eradication – depends on conditions
- Most likely will need several treatments
- Herbicide may damage some native plants



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Options for Control of EWM

Kevin Springob

(continued)

Do Nothing - We always have the choice of letting nature take its course and seeing what happens

Pros:

- No cost
- No effort

Cons:

- High risk if it does not work.
- If EWM spreads as it has in other lakes, it could cost 10's of thousands to control



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Options for Control of EWM

Kevin Springob

(continued)

Do Nothing - Here are a couple of “Do Nothing Examples”





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Options for Control of EWM

Kevin Springob

(continued)

Do Nothing - Here are a couple of “Do Nothing Examples”





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EWM Control Option Summary EWM

Kevin Springob

- **Hand pulling**
 - Possible but very hard to do right
- **Weevils**
 - Success is variable based on unknown factors
- **Cutting**
 - Would require waiting for growth to become nuisance level
- **Aquatic Mats**
 - Not widely used or successful
- **Chemical Treatment**
 - Can be costly but currently appears like our best option
- **Do Nothing**
 - Easy but high risk based on other lakes experience

Discussion?



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APMP Team / Board Recommendations Steve Fleming

1. Chemically treat current area (< 0 .2 acres) - August, 2009

Approximate Cost = \$1,420

2. Do focused EWM plant survey May / June, 2010

Approximate Cost = \$750

3. Chemically treat infestations as identified in #2 – June, 2010

Approximate Cost assuming 2 acres = \$4,750

6 Weeks later follow with Association Plant Survey

4. Do Complete Point Intercept Survey in August 2010

Approximate Cost = \$3,875

5. Chemically treat infestations as identified in #4 – August, 2010

Approximate Cost assuming 1 acre = \$1,420

6. Repeat #'s 2 and 3 above as needed



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Funding / Grant Possibilities

Steve Fleming

Obviously, we do not have the funds to cover all this work!

With ALA Board approval, we applied for WI DNR “Rapid Response” Grants for early treatment of invasive species

DNR pays 75% of approved treatment and control costs. Up to \$20,000

Lake Association would be required to pay for remaining 25%

That 25% can be in the form of “Donated” labor at the rate of \$12 / hour. Any work we (Lake Association Members) do after grant approval qualifies, including, boat inspection, surveys, and helping with treatment.

Grant was applied for and approved on August 10th, 2010



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Estimated 4 Year Treatment / Survey Cost Steve Fleming

**This estimate was put together for DNR Grant Purposes
Hopefully it is worst case**

Archibald Lake EWM Treatment / Survey Estimates		2009	2010	2011	2012
Assume:		1 treatment	2 treatments	1 Treatments	1 Treatments
Assumed Acres treated (<)		1	2	2	2
Setup for each treatment	\$ 540	\$ 540	\$ 1,080.00	\$ 540.00	\$ 540.00
Application / Acre	\$ 100	\$ 100	\$ 400	\$ 200	\$ 200
Attending meetings \$75/hr	\$ 75		\$ 150	\$ 150	\$ 150
EWM mapping survey of entire lake	\$ 750		\$ 750	\$ 750	\$ 750
Full PI Survey	\$ 3,875		\$ 3,875		
Material Cost		\$ 780	\$ 3,120	\$ 1,560	\$ 1,560
\$3.90 / lb					
100 - 200 lbs / acre					
Assume 200 lbs/acre	Total	\$ 1,420	\$ 9,375	\$ 3,200	\$ 3,200

Total Treatment / Survey Cost for 4 Years is \$17,197



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Estimated 4 Year “Donated” Labor

Steve Fleming

<u>Donated Labor</u>				
	<u>Hours applied</u>			
	<u>2009</u>	<u>2010</u>	<u>2011</u>	<u>2012</u>
CBCW Inspections	12	72	72	72
Association Plant Monitoring	12	96	96	96
Consultant Plant Survey Participation		144	48	48
Documentation / reports		32	32	32
Association and Town Presentations		30	30	30
Total hours	24	374	278	278

Total Hrs
954

Assumptions:

- CBCW inspections 6 hours / weekend for 12 weekends
- Plant Monitoring 12 people for 8 hours per summer
- Plant Survey Participation 6 people for 8 hours for 3 days

x\$12 per hr

\$11,448.00

4 Year Estimate for “Donated” Labor at \$11,448



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Total 4 Year Estimate

Steve Fleming

Total Cost Assuming "Donated" and Grant

4 Year Treatment / Survey Cost	\$	17,195
4 year "Donated" Cost	\$	11,448
Total Cost	\$	28,643
Assume DNR 75%	\$	21,482.25
We should receive maximum		\$20,000

This would require a fair amount of association work
Also require members to staff the boat landing

***4 Year Total is \$28,643. With WI DNR Grant
Archibald Lake's Only Expense is the Donated Cost***



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Discussion

Steve Fleming

- What additional information do you need?
- What would you like to talk about more?
- What concerns do you have?



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Board / APM Team Recommendations

Steve Fleming

- **Follow the plan as presented, including “Donated” labor**
 - **Pick a consulting company and treat ASAP this year**
 - **Survey / treat – early 2010, followed by full Point Intercept Survey**
 - **Treat and Survey in 2011 and 2012 as needed**

- **Lake Association Actions**
 - **ALA must staff the boat landing more – will help stop new EWM and other invasives from getting in**
 - **Participate in Lake “self-monitoring” – Early detection of new invasives that do find their way in. “Adopt a highway for the lake”**
 - **Learn as much as possible about invasives so everyone can help!**



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Vote / Direction Moving Forward

Steve Fleming

- 1. Do you approve of the plan as outlined in this presentation?
Do you approve of using chemicals to treat the EWM infestation?**
- 2. If the answer to #1 is yes, will you support, and help recruit others to help with the “donated” labor?**
- 3. Do you support giving the Aquatic Plant Management Team, with ALA Board Approval the ability to treat new EWM infestations without coming back to membership?**