Largescale Eurasian Watermilfoil Herbicide Treatment of Shawano Lake

Partnership Project Between Shawano Area Waterways Management, Shawano County, Local Townships, Shawano High School, Shawano Ski Sharks, Consultants, and DNR.



Shawano Lake

- Hard water drainage lake with multiple inlets and one major outlet, the Wolf River
- 6,178 acres
- Average depth of approximately 9 feet
- Maximum depth of approximately
 42 feet
- Shallow nutrient rich AIS superspreader.
- Shoreline length is estimated at 18 miles
- Surrounded by 5 governmental entities (3 townships, 1 city, and 1 village)
- Shawano Lake AIS project was successful in a 92% kill of 923 acres of Eurasian Watermilfoil.





Teamwork

- Takes a strong team to do lake management.
- Not rocket science, however not easy.
- Bringing together diverse groups is a must.
- No one does it alone!



RELATIONSHIPS

- It's got to be win/win.
- Listen to each other.
- Understand where the other party is coming from.
- Check for understanding, then make an effort to get your point across.
- Work together to produce a successful outcome.
- Scientifically sound lake management plan



Establish Trust

- People are only comfortable working(partnering) with those they trust
- Use data and science to build a foundation and defend against dissenters.



SAWM's RELATIONSHIP WITH ELECTED OFFICALS

- Excellent
- Outreach
- Role of local businesses
- Leverage relationships within Shawano community
 - Schools
 - Non-profits



SHARE YOUR STORY OFTEN

Thank for support

- Financial
- Moral

Share updates

Success Stories

Share Vision

Implementation

Flush out objections



PEER RELATIONSHIP...

- People
 - Skill set
- Board make up
- Expertise
- Technology
- Science
- Data



A FRESH START!!!

- Our Wisconsin Department of Natural Resources
- Tremendous expertise at your disposal Free
- Fresh set of "eyes"
- Grant \$\$\$\$



IYADWYADYWAGWYAG – OR WORSE

Elected officials recognize positive change



DIFFERENCE MAKER

Recognized professional partner

expertise

planner

goal orientated

buy in

implementation

measure success



Who's the quarterback?

- Lake Leaders Institute
- Team
- Establish comfort level
 with elected officials to
 the extent they're willing
 to invest political capital
 championing your cause



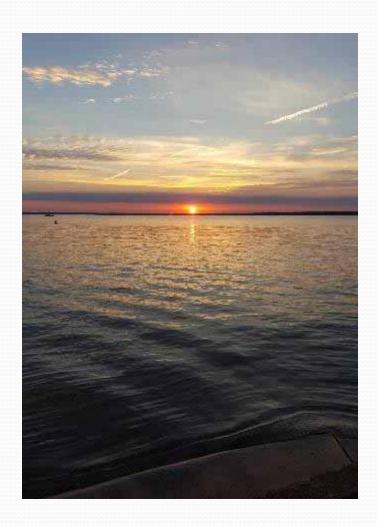
100% Buy In

- Vision
 - Caring for Shawano Lake Now and for Generations
- Deliverables
 - Education
 - Aquatic Plant Management
 - Water Quality
 - Fisheries
 - Shoreland Restoration
 - Recreation / Navigation



SIMPLE CHOICE

- There's more to share with elected officials
- Economic impact of Lake Management



HOW DO YOU EAT AN ELEPHANT??....

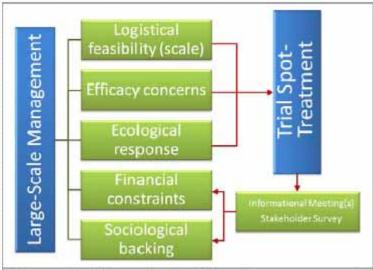
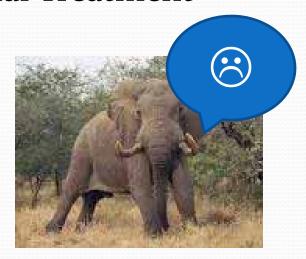


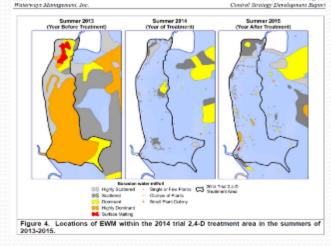
Figure 1. Flow chart addressing concerns of implementing a whole-lake treatment on Shawano Lake.

One bite (step) at a time Trial Treatment

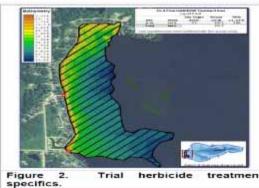


Results of 2014 Spot Treatment

- Pre-treatment EWM was located at 161 (80.1%) sub-sample locations.
- Post treatment, EWM was reduced to 35 locations (17.4%).
- This equates to a reduction in occurrence of 78%, which exceeds the pre-determined quantitative success criterion of a 75% reduction.
- ***Surveys and statistics provided by Onterra LLC







Management Plan and map completed by Onterra LLC

Stakeholder Survey

Question 14: From the list below, please rank your top three concerns regarding Shawano Lake

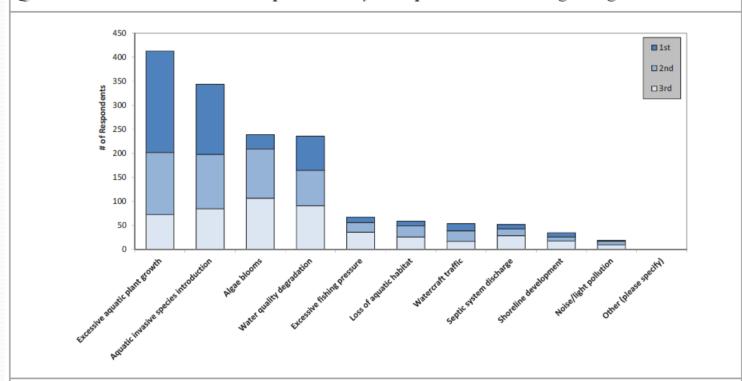


Figure 8. Select survey responses from the Shawano Lake Stakeholder Survey - #14. Additional questions and response charts may be found in Appendix A.

Extensive Education and Outreach

(Included but not limited to...sociological backing, informational meetings, and stakeholders surveys)

- SAWM Annual Meeting mailed out 1200 announcements. Featured in weekly e newsletter.
- <u>2 Property Owner's Meetings</u> SAWM mailed out over 900 letters inviting property owners to the two public information meeting.
- <u>1 Angler's Meeting</u> Meeting partnering with local Fish Biologist and Onterra to review project and results thus far and tentative schedule for next year
- Market Messenger (local newspaper) has agreed to do a series of articles on SAWM and specifically our 2016 APM Plan. They will appear at least once per month starting now.
- Co-presentation with Brenda Nordin to the Department of Natural Resources Natural Resource Board September 22, 2015.
- Conservation Congress Presented to CC in April 2014 of Trial Test and APM plan going forward 2016
- Radio Programs Ray Zuelke was the guest host two times for one hour each.

- Shawano County Board Land and Conservation Committee – addressed board two times. Handed out maps of Trial Test Area and went over time line of project listed on reverse side. County staff expressed support and thanks for work being done
- Town of Washington Board Meeting two times. Thanking for support. Trial Test results and APM plan for whole lake treatment. Received huge expression of support and thank you making a difference, positive, in Shawano Lake
- City of Shawano Reached out to Mayor Lorna Marquardt. Shared details of our APM. She wants to arrange a presentation at one of her council meetings. She would like to place and article in the Shawano Leader. Mayor and council very supportive – contribute \$4,000 to our carrying out APM. I'm aware other SAWM Board directors have also reached out to City of Shawano
- Wolf River Lutheran High School Cecil Presentation on APM to faculty and student body.
- Shawano Lake Sanitary District Board of Commissioners – Presentation Trial Test results and 2016 plan

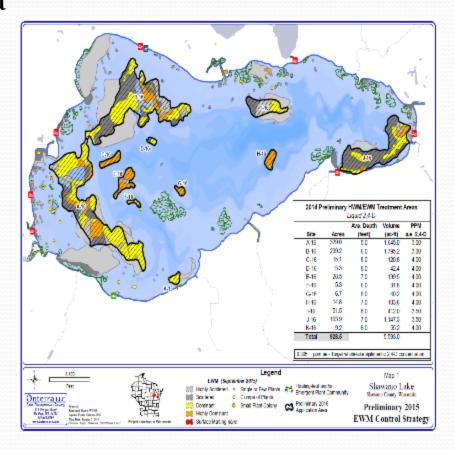
Outreach and Education continued...

- Village of Cecil Three times. One extra time due to extreme concern by Village officials regarding AIS, especially EWM, in their "end" of lake.
- Town of Wescott Twice pretty much same as Washington. Should note that these municipalities express their value for our work by contributing dollars annually to SAWM to help us carry out our APM. Washington \$8,000, Wescott \$16,000, and Cecil \$2000.
- Shawano Lake Sanitary District Board of Commissioners – Presentation Trial Test results and 2016 plan
- Spring News Letter mailed out to 1200 property owners – lake, river, channel – Trial Test Results, APM plan for 2016
- Ski Sharks Show 500 attendance Presentation, Trial Test results, APM 2016 large scale whole lake herbicide treatment.
- Survey mailed to 973 lake property owners
- Rotary Presentation
- SKI SHARKS
- Pontoon Cruise presentation



Largescale Chemical Treatment plan

Chemical treatment using liquid form of 2,4D applied over 11 monotypic beds to achieve a lakewide concentration between .350 - .400 ppm.



A Good Plan is Essential

Recommendations for public interface

- Good projects take lots of prep time. It's worth the investment
- Data! Data! Data!
- Strong Public involvement is essential

Recommendations for plan implementation

- Determine if there really is an issue???
- Sit down with <u>all</u> board members and brainstorm on the project <u>together!</u>
- Come up with a solid plan using the latest science available.
- Plan elements should include
 - Baseline data on aquatic plants, using the standard and quantifiable Point Intercept method.
 - Identify what "triggers" control action
 - This is typically done when EWM reaches a pre-determined % frequency of occurrence (using point intercept method).
 - Achieving the targeted concentration is **critical.**
 - Try to anticipate what problems or push-back might occur
 - Lake Leaders, Lake Leaders!!!

Questions

