

# **Big Chetac and Birch Lakes Lake Planning Efforts**

**Public Meeting**

**Saturday May 20, 2017**

**Birchwood School Commons**

**10:00am – Noon**

**Lake Education and Planning Services, LLC**

# Exploratory Interviews – Summer 2016

- \* Result of an agreement between the WDNR and BCABLA to suspend chemical management of CLP until a new effort to involve certain stakeholders was planned and completed.
- \* Remaining money in the 2013-2015 AIS Control Grant from the WDNR would be used to cover the costs of a consultant to help guide and implement this effort.
- \* Part of an effort to address issues with past management planning and implementation
- \* Involved two groups of Constituents
  - \* Local Government Representatives from the Towns of Edgewater and Birchwood and the Village of Birchwood
  - \* Resort Owners on Big Chetac and Birch Lakes
- \* Considered a Pre-cursor to preparing a new Lake Management Plan

# Interview Questions

- \* Non-confrontational
- \* Help define lake health issues
- \* Help define expectations for the lakes
- \* Identify sources of information
- \* Identify short-comings and highlights of the management planning and implementation process
- \* Identify reasons for opposition
- \* Seek input for how future management planning and implementation should be done
- \* Ideas to make future discussions productive and beneficial

## \* Six Topic Areas

- \* Lake Use
- \* Fisheries and Wildlife
- \* Aquatic Plants and Aquatic Plant Management
- \* Water Quality and Water Quality Management
- \* Information and Monitoring
- \* Stakeholder Involvement and Discussion

# Completed Interviews

- \* 2 Town of Birchwood Officials
- \* 3 Town of Edgewater Officials
- \* 3 Village of Birchwood Officials
- \* 2 Resorts on Birch Lake
- \* 7 Resorts on Big Chetac Lake

# Summer Survey Results

- \* Fishing is the most important lake use, but not the only one.
- \* **Opinions on fishing impacts caused by management vary**
- \* Conditions in the lake vary, affecting different users at different times, and not all the time
- \* **Concern over what impacts future management would have on other wildlife**
- \* Concern over aquatic plants (including CLP) is mixed – there are bad times, and not so bad times
- \* **Decisions to manage aquatic plants (including CLP) should not be in the hands of one stakeholder group**
- \* In general, plant management would be supported if there was a determined need, with harvesting being the preferred method, but use of herbicides not ruled out.
- \* **Biggest concern was that too many plants would be taken out.**
- \* More proof from other lakes that management works.

# More Survey Results

- \* Green water is not necessarily unhealthy water, improvements may be needed but not for all uses or at all times
- \* Less thick green slime, odor, and dense vegetation that interferes with navigation
- \* Water quality depends more on environmental conditions than management actions
- \* Most credible sources of information: scientific lake studies, people using the lakes, professionals
- \* Least credible sources of information: word of mouth, social media, hearsay, opinion based comments, public surveys
- \* Information provided by the BCABLA, WDNR, government entities, and individuals are viewed and trusted differently depending on the perspective
- \* Monitoring of many different parameters provides checks and balances for management – more monitoring is needed
- \* Communication between stakeholder groups was unsatisfactory during the last management planning and implementation effort
- \* The Town and Village of Birchwood would be more involved if they felt efforts were being made to include Big and Little Birch lakes

# Several Things Came Out of the Summer Interview Process

- \* A need to increase the level of public involvement, not just information in management discussion, planning, and implementation
- \* A need to improve communication among Stakeholder Groups
  - \* Town Boards, Village, BCABLA, WDNR, Property Owners on all three lakes, Downtown Businesses/Chamber, Resort Owners, Fishermen and Sporting Clubs
- \* A need to re-involve/involve Birch and Little Birch Lakes in the Process
- \* A need to have a third-party (not WDNR, not BCABLA) facilitator guide the management process



**Stakeholders Committee  
Formation and Lake  
Planning Grant  
Discussion Meeting  
December 2016**

# Stakeholders Committee Proposal

- \* Mechanism to increase the level of public involvement in management discussion, planning, and implementation
- \* Provide a non-confrontational atmosphere for discussion among stakeholders to take place, free to express opinions without worries of repercussions
- \* Proposed Stakeholder Group Representatives
  - \* 3 BCABLA Representatives (two on Big Chetac, one on Birch)
  - \* 2 Towns of Birchwood and Edgewater (one representative each)
  - \* 1 Village of Birchwood (one representative)
  - \* 2 Resort Owners (one on Big Chetac, one on Birch)
  - \* 1 Red Cedar River Watershed Coalition (one representative)
  - \* WDNR (non-voting)
  - \* Third Party Facilitator (non-voting)
- \* Others? (members, substitutes, resource liaisons, missing stakeholder groups)

# Original Committee Members

## \* BCABLA

### \* **Mark Robinson**

- \* BCABLA President, Big Chetac Lake

### \* **Bill Miller**

- \* BCABLA Past President

### \* **Steve Longacre**

- \* Birch Lake, at large

## \* Resort Owners

### \* **Julie Telitz-Thomas**

- \* Fred Thomas Resort

### \* **Jim DelMedico**

- \* Maple Terrace Resort

## \* Red Cedar Watershed Coalition

### \* **Gerry Johnson**

- \* President of the Red Cedar Lakes Association as well

## \* Town of Birchwood

### \* **Romaine Quinn**

## \* Town of Edgewater

### \* **Pete Baribeau/Scott Spaeth/Bill Zimmer**

## \* Village of Birchwood

### \* **John Depoister/Virginia Hurckmann**

## \* Non-Voting Members

### \* **Alex Smith – WDNR**

### \* **Dave Blumer – LEAPS**

- \* Facilitator

# Current Committee Members

## \* BCABLA

### \* **Mark Robinson**

- \* BCABLA President, Big Chetac Lake

### \* **Bob Reynolds**

- \* BCABLA Past President

### \* **VACANT**

- \* Birch Lake, at large

## \* Resort Owners

### \* **Julie Telitz-Thomas**

- \* Fred Thomas Resort

### \* **Jim DelMedico**

- \* Maple Terrace Resort

## \* Red Cedar Watershed Coalition

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## \* Village of Birchwood

### \* **John Depoister/Virginia Hurckmann**

## \* Non-Voting Members

### \* **Alex Smith – WDNR**

### \* **Dave Blumer – LEAPS**

- \* Facilitator

# 2017-18 Lake Management Planning Grant Application

- \* Suggested by LEAPS as a way to address some of the concerns voiced during the interviews.
- \* Implements actions that directly involve Birch and Little Birch lakes.
- \* Supported by the BCABLA (Sponsor) and the WDNR
- \* One project (\$43,597.00) with a State Share funding request of \$24,957.00.
- \* Requires an \$18,640.00 Sponsor Match
  - \* **Match would be made with volunteer time and donated equipment use over two years.**

# Goals, Objectives, and Actions

- \* Lake water quality testing at two sites at least in 2017!
  - \* Birch Lake, Outlet of Big Chetac to Birch Lake
  - \* Birch Lake Volunteer and WDNR (Directed Lakes Study)
- \* Cold and warm season whole-lake, point-intercept aquatic plant survey on Birch and Little Birch lakes
  - \* WDNR (Directed Lakes Study)
  - \* 817 points (CLP and native plants)
- \* Shoreland Survey in 2017
  - \* Includes the shoreline of all three lakes!
  - \* Individual parcel evaluation for possible BMPs
  - \* Priority Rankings
  - \* Possible grant eligible projects to make improvements
  - \* Woody Debris Survey
  - \* Needs Volunteer time and donated boat use!

# More Goals, Objectives, and Actions

## \* Fishing Success Survey

- \* Similar in nature to WDNR Ceded Territory Creel Surveys
- \* Resort Clientele asked to record their fishing success during the season
- \* Needs Resort Owner Participation to Work
  - \* Ask their clientele to participate and explain why
  - \* Hand out and collect “data recording forms”

## \* Stakeholder Committee Support

- \* Consultant costs, materials and supplies, location costs, mileage reimbursement for participants, etc
- \* Up to 10 meetings through 2018

# Goals – Lake Use and Fishing Success Survey

- \* To collect semi-formal data about lake use and fishing success of resort guests/clientele in 2017
  - \* Quantify fishing activity including what species is being caught the most, size structure of the fish being kept, and total time people are actively engaged in fishing
  - \* Compare fishing time on the lake to time spent doing other on-the-water activities like water skiing and quiet sports
- \* To actively engage Resort Owners/Managers and resort clientele in collecting data to be used for current and future lake management planning

## Why?

- \* Tremendous concern about the fishery in the Chetac Chain
- \* No prior effort to collect information about fishing success, only about fish in the lakes
- \* Anecdotal fishing success evidence ranges from “poor success” to “great success” depending on who you talk to.
- \* Try to determine if lake use other than fishing is increasing



- \* Week-long Clientele or other extended stay audience
- \* Weekend Campers if they are using the lake
- \* Week day Campers if they are using the lake
- \* Individuals, Families, and Groups
- \* Don't expect to get everyone, but a good cross-section of these groups would be good
- \* *Not specifically targeting fishermen or lake users that may be "day-trippers" not associated with campgrounds or resorts. Also not intended for the seasonal RV'ers unless under the following situation*
  - \* If this audience wants to participate, have individuals contact me
  - \* Forms will be sent with a return address for completed forms

# Why Resorts?

- \* A little more control over distribution and data collected
- \* Reach a broad range of fishermen and lake users
- \* Livelihoods depend a lot on fishing



- \* In operation all season long
- \* First line of contact for many users of the lakes
- \* Have built a repair with clientele suggesting more consistent data

# WDNR Creel Survey on Big Chetac Lake in 2017

- \* Official Creel Survey
  - \* not associated with the Fishing Success Survey
- \* Survey Personnel on the lake 40 hours a week during the fishing season, including ice fishing
- \* Will have an official boat.
- \* Will approach anglers to gather information about what they are fishing for and their catch.
- \* Will do whole lake fishing boat counts twice a day
- \* Are not Natural Resource Wardens, have no enforcement credentials
  - \* However it is generally considered illegal to not cooperate with a Creel Survey Technician if asked to do so.
- \* Primarily interested in Big Chetac data, Birch Lake will be done officially in another year or two.



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# **Stakeholders Committee Meeting – January 2017**

**Getting Rid of the Green – A Review &  
Lake Use and Fisheries Impacts**

# What People Saw, What Data (2008-09) Showed

## ➤ Problems identified by the Lake User Survey

- Green water (91%)
- Excess weed growth (79)
- Foul odor (68)
- Invasive species (57)
- Floating vegetation (48)
- Poor fishing (47)
- Low water level (34)
- Over development (32)
- Excessive skiing or power boating (32)
- Poor boat access (21)
- Too much public use (21)
- Too much shoreland lighting (12)
- Nuisance wildlife (8)

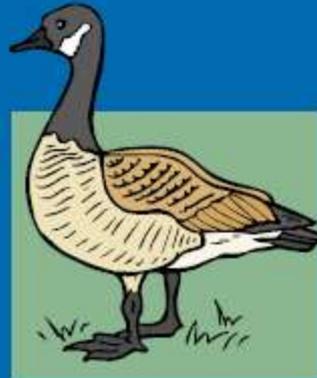
## ➤ Problems identified by the last two years of data collection

- High nutrient values in the lake
  - Green water
  - Foul odor
  - excess weed growth
  - Invasive species
- The invasive plant species curly-leaf pondweed
  - Excess weed growth
  - Floating vegetation
  - Green water
  - Poor fishing (?)
- Shoreland development
  - Over development
  - Excessive power boating
  - Poor fishing
  - Shoreland lighting
  - Nuisance wildlife
  - Green water

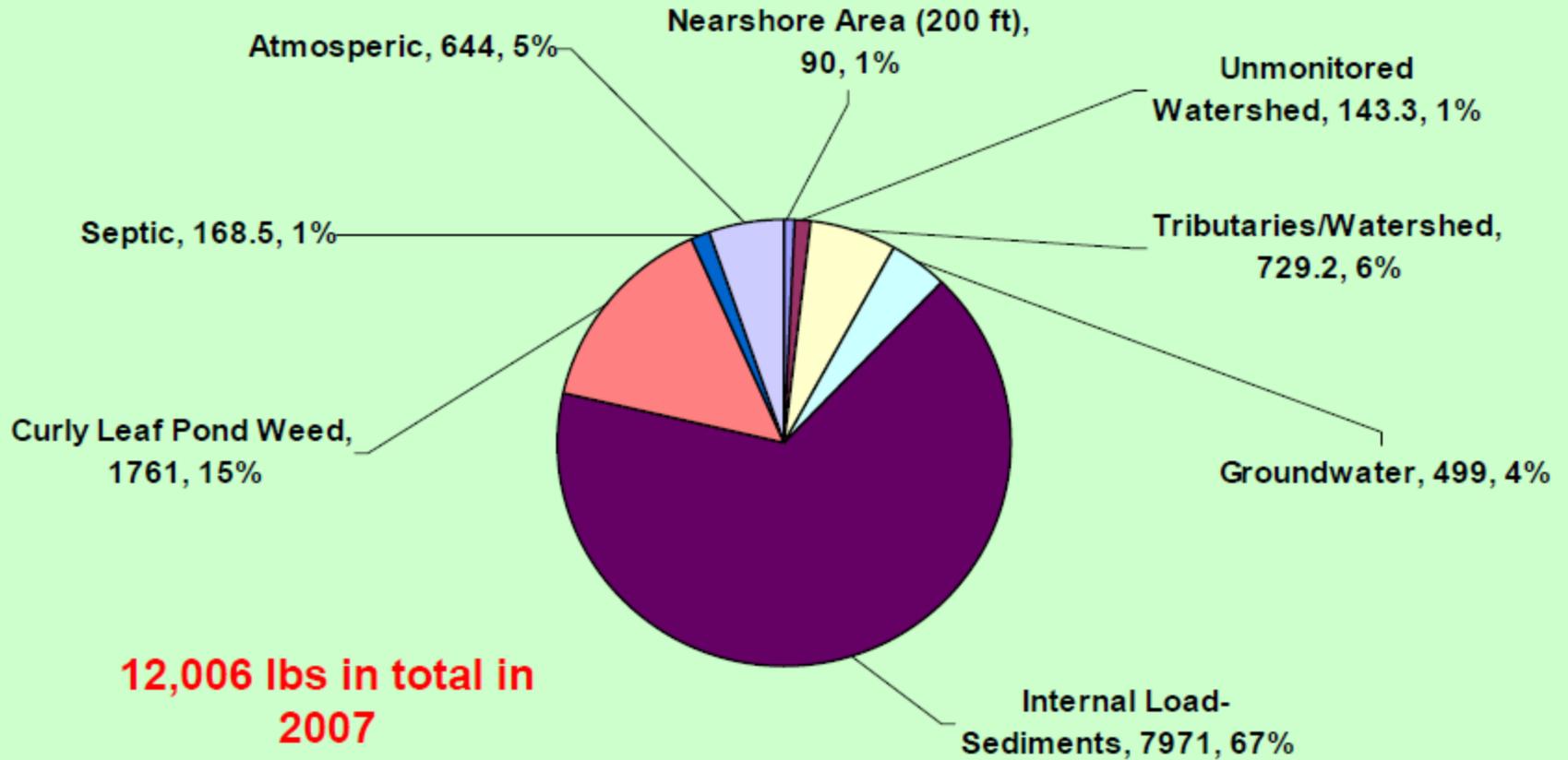
# High Nutrient Values

- 12,006 lbs of phosphorous into Big Chetac Lake in 2007
- Now, where did it come from ?

Other?



# Here's where it comes from.



# From the 2010 Comprehensive Lake Management Plan

## **4.4 Should Anything be Done to Improve Conditions in the Lake?**

Changing Big Chetac Lake from a nutrient rich, algae dominated system to a clear water plant dominated system is not a reasonable goal, given the history and characteristics of it. Setting appropriate goals for lake improvement based on what is desirable and what is politically and economically feasible, is reasonable. Under the assumption that current overall conditions in the lake can be improved, but not significantly changed; that previously unidentified aquatic invasive species like EWM are not desirable in the lake; that the existing fishery is desirable; that the majority of lake users would like to see improvements in water quality that will decrease the number of days where lake use is impaired; and that greater lake understanding will help facilitate these things; the answer to the question above is yes. If something can be done, something should be done.

# Lake Use and Fisheries

- \* It is a big lake, room for many uses, conflict should not be/is not a big issue
- \* Fishing most important, but lake use evolves over time, other uses increasing
- \* Resort Owners felt 2016 was a good year for fishing, more so than the Government Representatives
- \* Still mixed feelings about the impact of 2013-15 CLP management on the fishery, but general agreement that all changes in the fishery during that time could not be blamed on the herbicide.
- \* More fishery data needs to be collected
- \* The Fishing Success Survey was thought to be a good idea, good information to collect

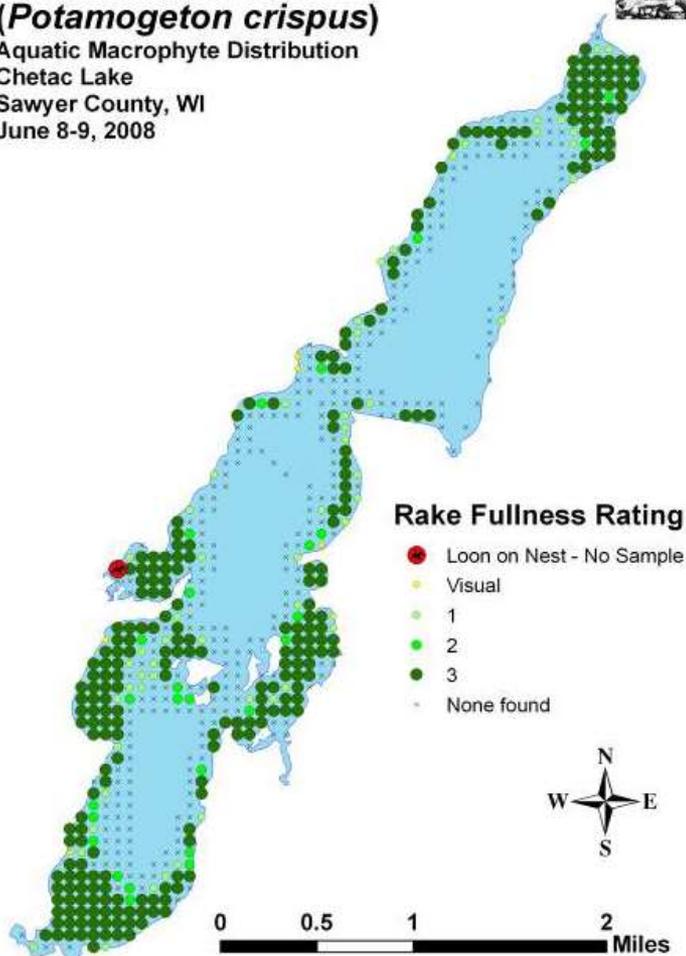


**Stakeholders Committee  
Meeting – February 2017**  
**Aquatic Plants and Aquatic Plant  
Management**

# CLP Management

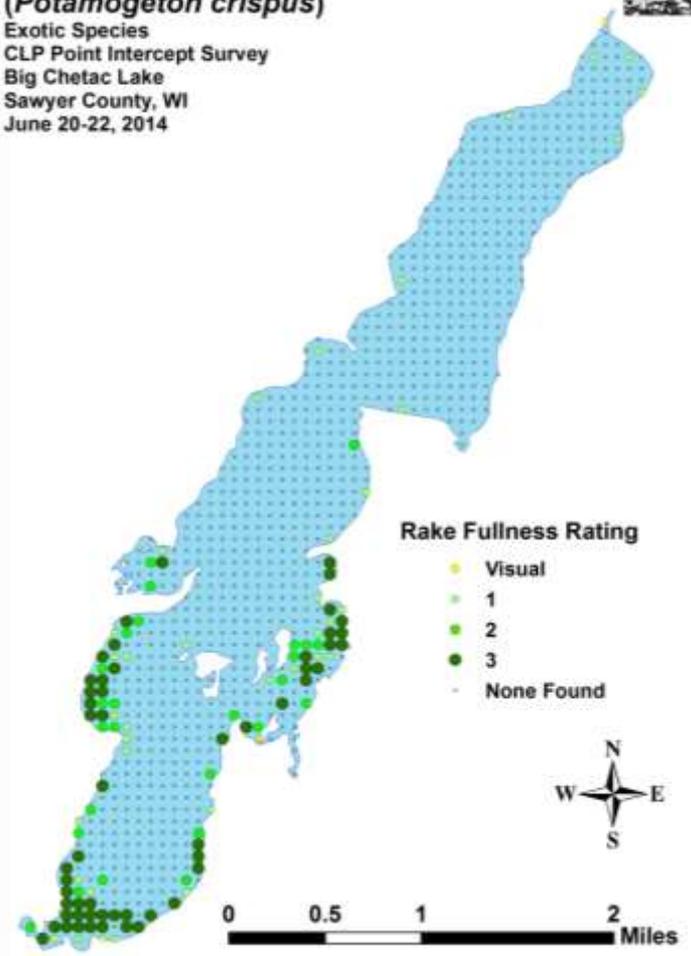
## Curly-leaf pondweed (*Potamogeton crispus*)

Aquatic Macrophyte Distribution  
Chetac Lake  
Sawyer County, WI  
June 8-9, 2008

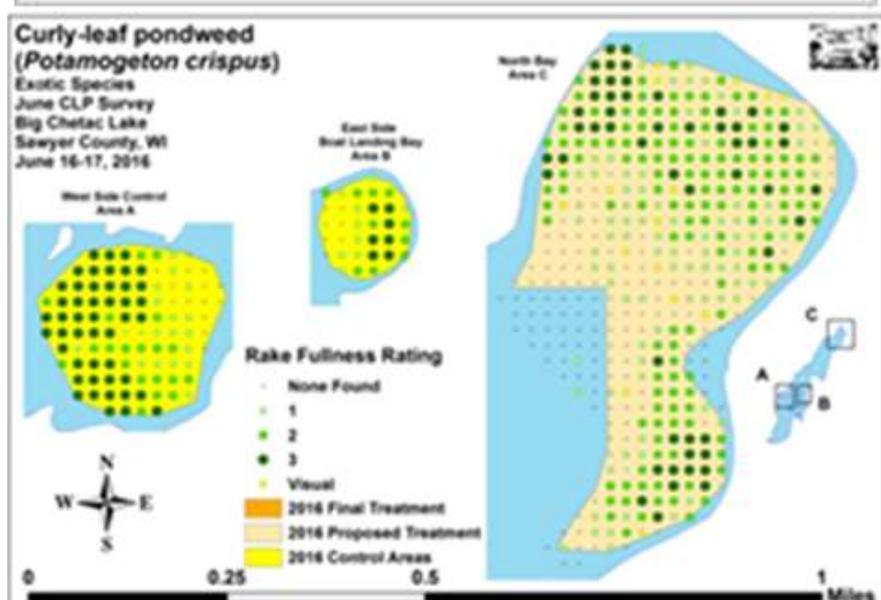
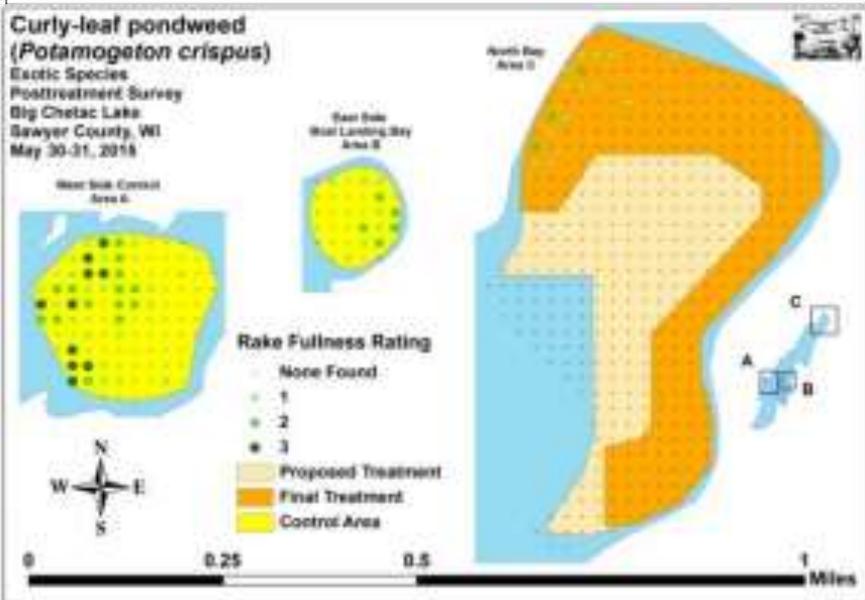
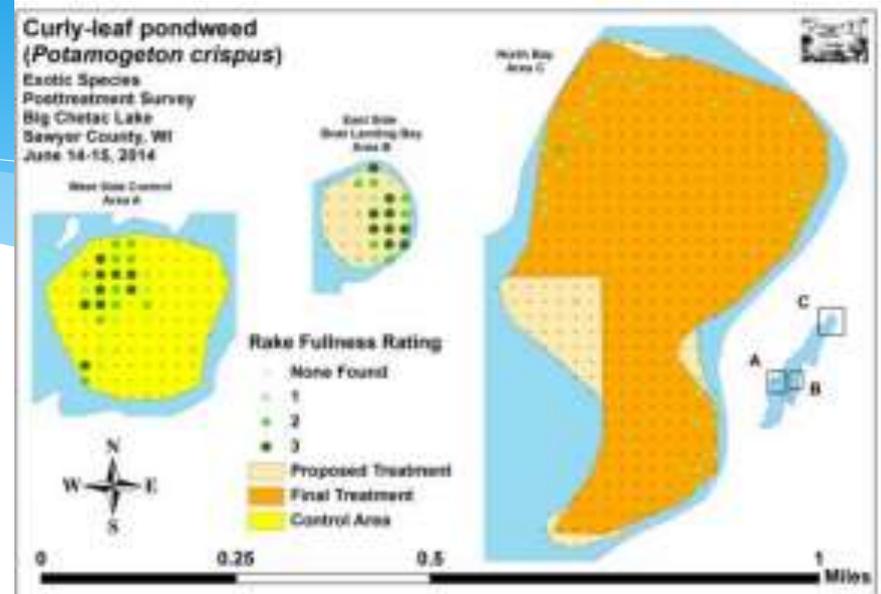
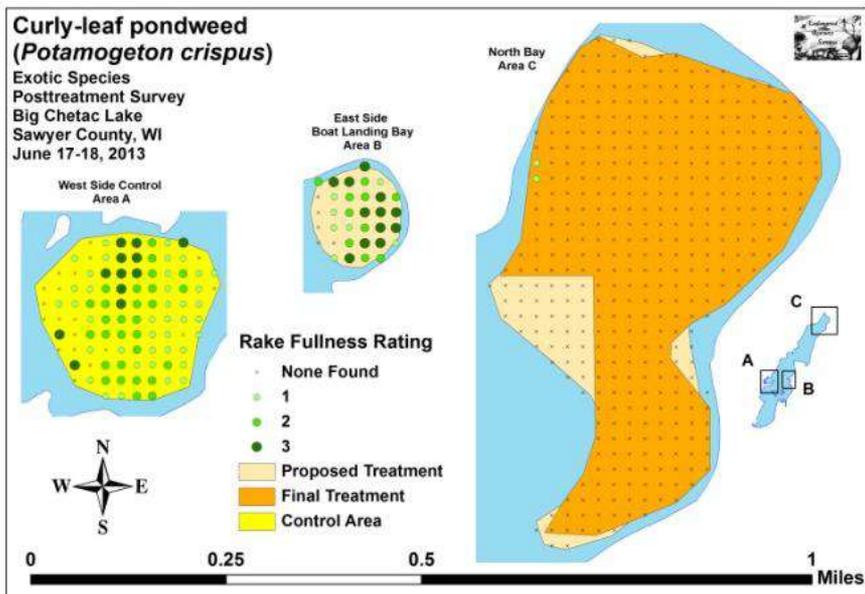


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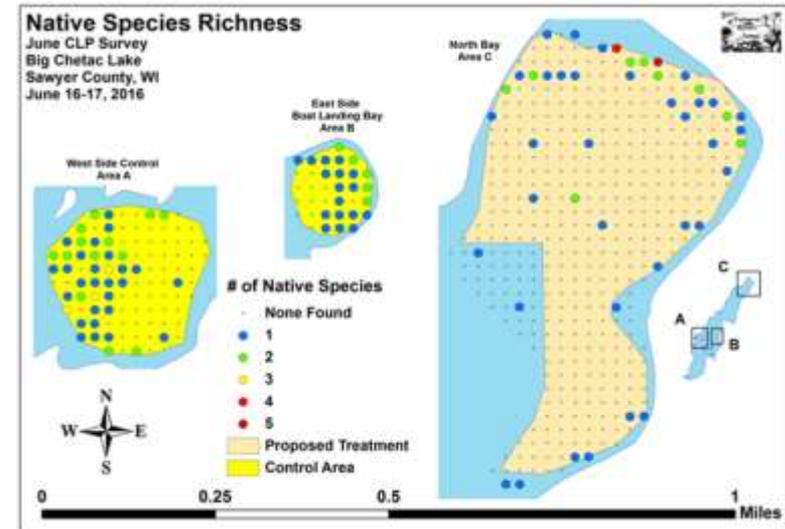
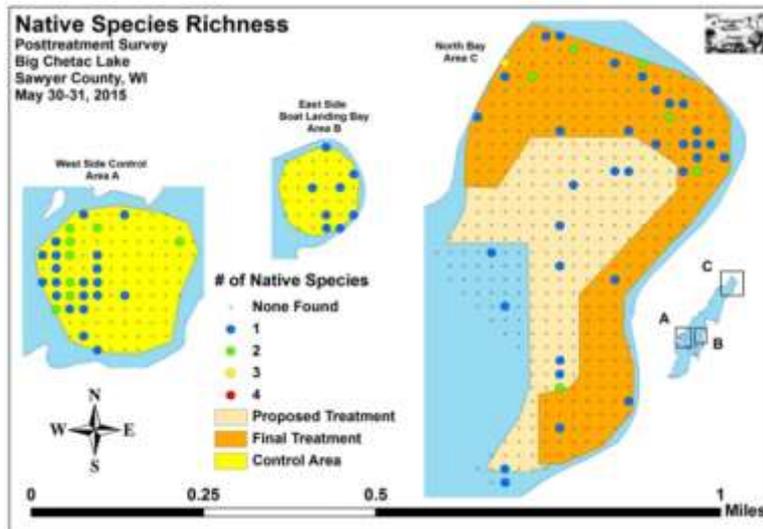
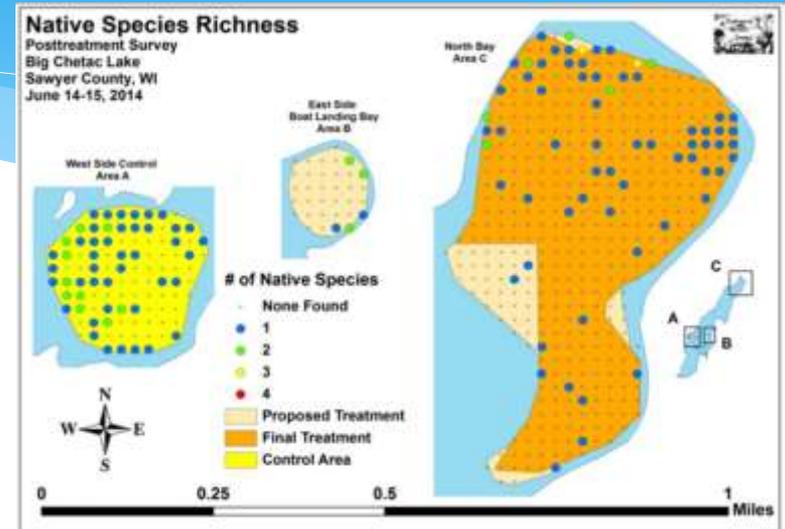
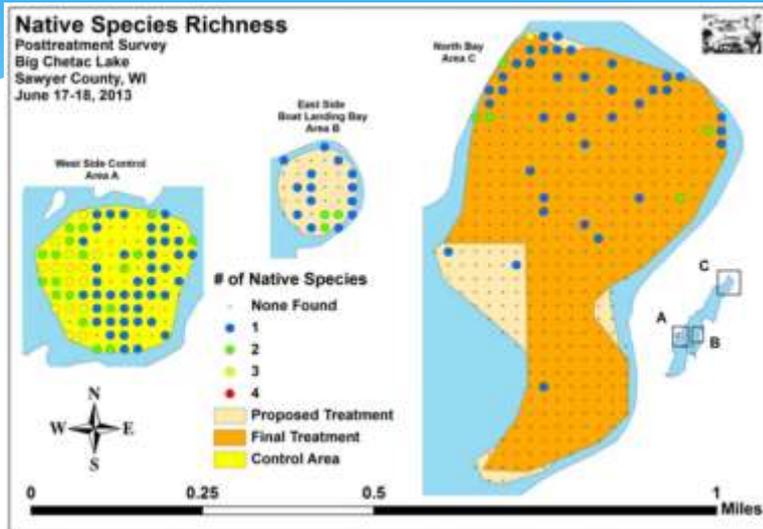
Exotic Species  
CLP Point Intercept Survey  
Big Chetac Lake  
Sawyer County, WI  
June 20-22, 2014



# CLP Management June 2013-2016



# North Bay Treatment Area Species Richness Recovery in June 2013-16



## Late May/June Differences for Native Species North Bay - Big Chetac Lake, Sawyer County 2013-2016

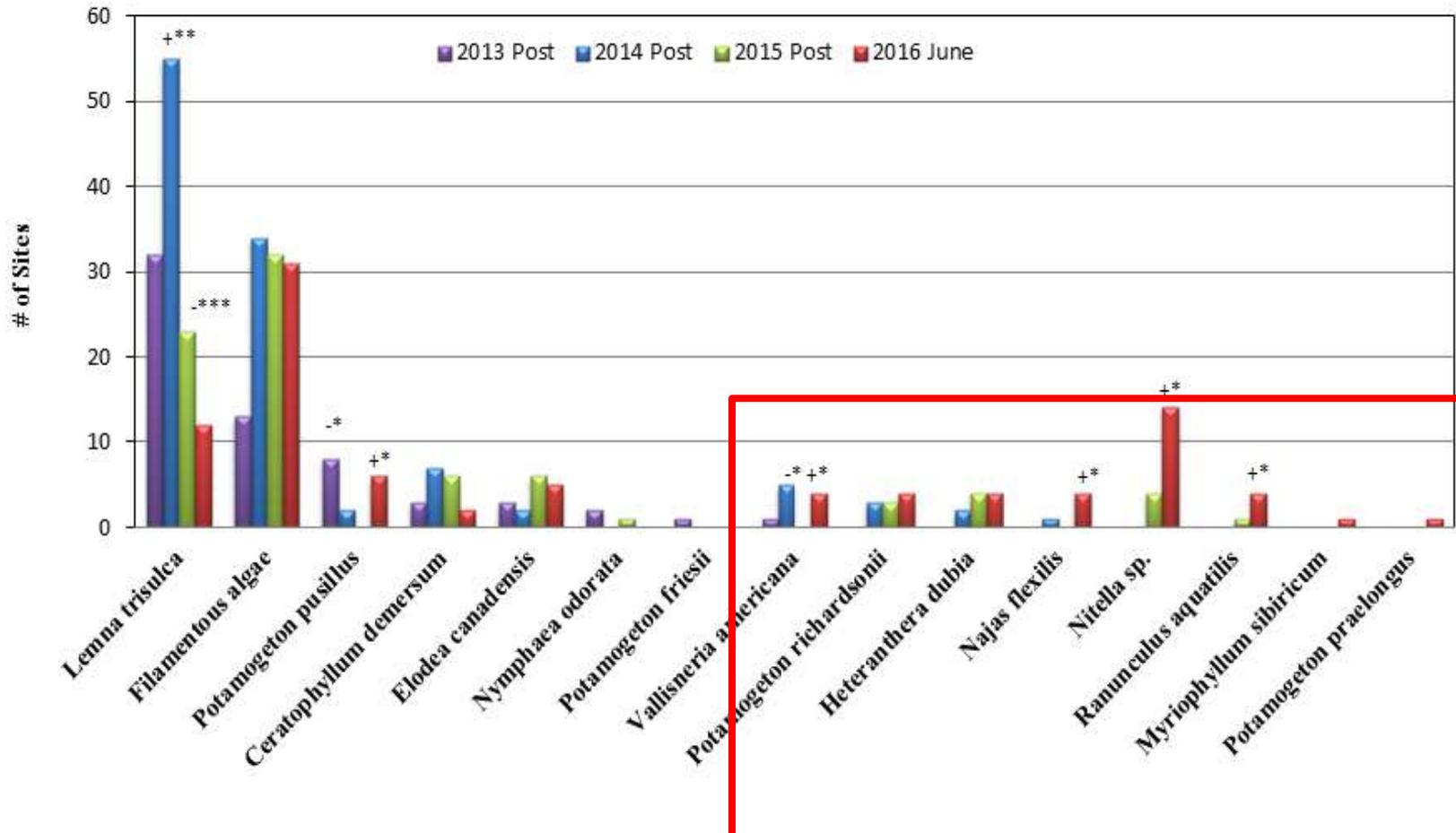


Figure 18: Late May/June 2013-2016 - Differences for Native Species – North Bay

# Were Aquatic Plant Management Questions Answered?

## Main Questions

## Peripheral Questions

\* Can CLP in the lake be reduced through management?

\* Yes

\* Can a reduction in CLP be maintained?

\* Probably, but will need maintenance management

\* Does native plant growth improve if CLP is managed?

\* Maybe, but the verdict is still out

\* Was navigation improved?

\* Yes

\* Did water quality improve as a result of CLP management?

\* Maybe, but other factors also come into play

\* Some Constituents say “yes”

\* Were there any negative impacts on the fishery caused by CLP management?

\* Some users say “yes”

\* DNR data says “no”

\* Does not take into account catch rates by anglers

\* Still lots of concern by constituents

# Other Studies Referenced by Constituents

**CURLY-LEAF PONDWEED TRENDS AND INTERRELATIONSHIPS WITH WATER QUALITY: Steven Heiskary and Ray D. Valley 2012**

- \* Relationships between curly-leaf senescence and water quality vary substantially among lakes
- \* Post-senescence decreases in water clarity are most pronounced in shallow lakes with minimal native vegetation. In these lakes, abundant growth of curly-leaf is followed by severe algal blooms
- \* In shallow lakes with abundant native vegetation, the post-senescence decreases in water clarity are muted
- \* Where curly-leaf density is low to moderate, observations of decreases in water clarity following curly-leaf senescence were minimal.

**Lake Elwood Fish Crash, 2014**

- \* Too much EWM management over 10 years leading to a reduction in native plants
- \* Young-of-the-year panfish don't make it to the end of the year due to predation
- \* May need to live with some level of an aquatic invasive plant species like EWM
- \* Is Lake Elwood an anomaly? Other lakes where management occurs haven't noticed a declining fish population.
- \* The verdict is still out
- \* On-going research is being done to determine gather credible and science-based data.
- \* Monitor for young-of-the-year fishes to determine if there are negative impacts on fish population.



# **Stakeholders Committee Meeting – March 2017**

**Similar Management on other Lake and  
Water Quality**

# Long-term CLP Management Results in Other Lakes

## \* Rice Lake, Barron County

- \* Whole-lake PI's 2008, 2013, (2018?)
- \* Chemical management of CLP (10-60 acres)
  - \* 2009-2012 Main Basin and South Basin
  - \* 2015-2017 South Basin

## \* East Balsam Lake, Polk County

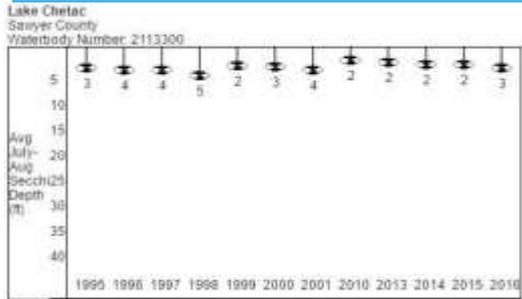
- \* Whole-lake PI's in 2009, 2014, (2019?)
- \* Chemical management of CLP (60 plus acres)
  - \* 2012, 2014, 2015-2016, 2017?

## \* Long Lake, Polk County (near Centuria)

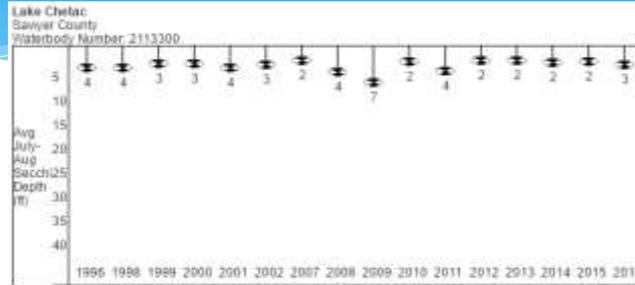
- \* Whole-lake PI's in 2008(?), 2012, 2016
- \* Chemical management of CLP (25-60 acres)
  - \* 2010-2014, 2016 (35 acres, 58 acres in 2012), 2017?



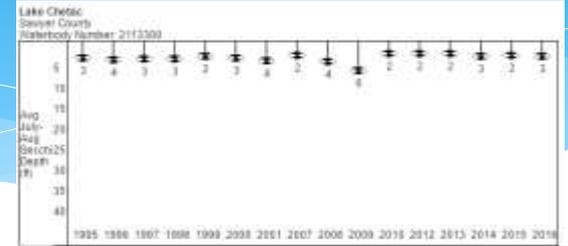
# Big Chetac and Birch Lakes CLMN Water Quality Testing



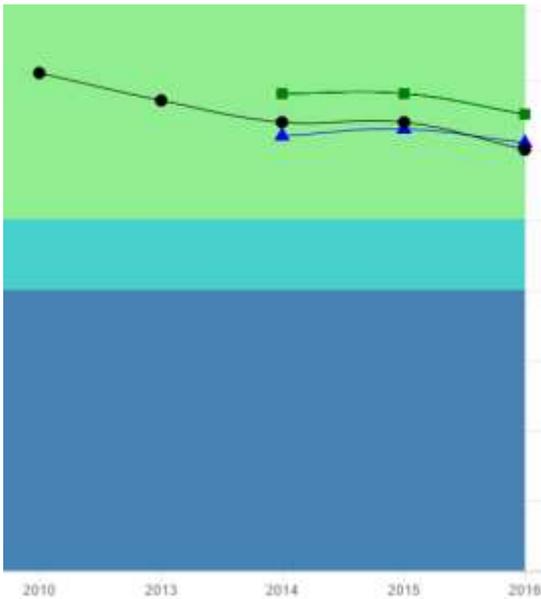
Past secchi averages in feet (July and August only).



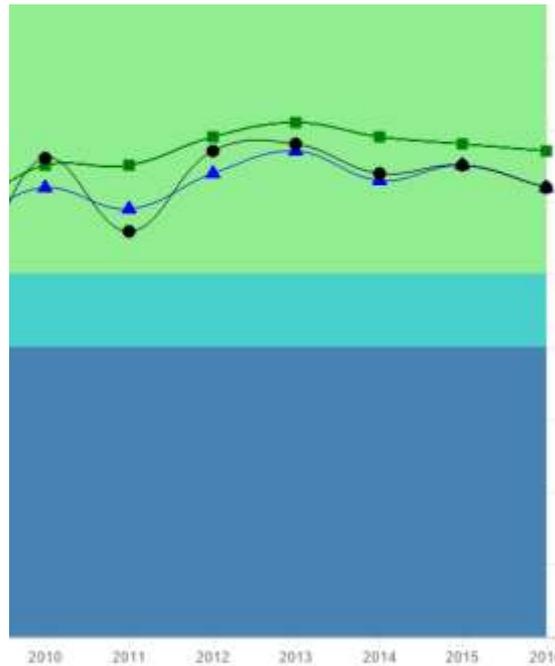
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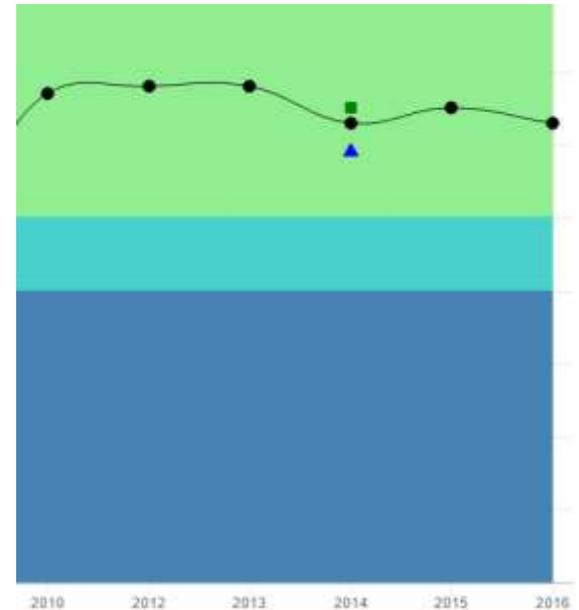
Past secchi averages in feet (July and August only).



North Basin



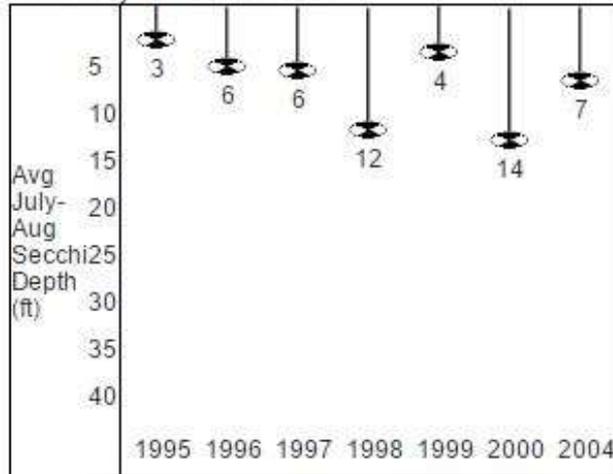
Central Basin



South Basin

# More CLMN

Birch Lake  
Washburn County  
Waterbody Number: 2113000



Past secchi averages in feet (July and August only).

Year	Secchi Mean	Secchi Min	Secchi Max	Secchi Count
1995	2.65	2.5	3	5
1996	5.5	3.75	8.75	5
1997	6	3.5	10.25	7
1998	12.38	10.5	13.5	4
1999	3.92	3	5.5	3
2000	13.5	13.5	13.5	1
2004	7	7	7	3

Report Generated: 03/29/2017

- \* We have some data shortages.
- \* We need volunteers for water quality testing in Birch Lake
- \* Currently only one volunteer doing three sites on Big Chetac
- \* CLMN and LPL Grant

# What affects water quality?

- \* **Basically everything** – weather conditions, lake use, lakeshore development, condition of the shore, land use in the watershed, aquatic plants in the water, depth of the lake, chemistry in the lake, tributaries feeding it, fish, wildlife, and zooplankton, etc. etc. etc.

## How do you improve water quality?

- **Change everything** (if you can) – weather conditions, lake use, lakeshore development, condition of the shore, land use in the watershed, aquatic plants in the water, depth of the lake, chemistry in the lake, tributaries feeding it, fish, wildlife, and zooplankton, etc. etc. etc.



# **Stakeholders Committee Meeting – April 2017**

**Stakeholders Committee Make-Up and  
Possible Changes**

# April 2017 Meeting Notes

## Several motions proposed prior to the meeting that would change the make-up of the Stakeholders Committee

- \* Stakeholders Committee (SC) Representatives must be a property owner on the lakes or in the governmental units included in the makeup of the committee
- \* Only Representatives that meet the criteria in the first motion can vote
- \* Any revision of the current Lake Management Plan must reflect and be consistent with decisions made, or guidance provided by the SC during 2016-17 deliberations and voting unless specifically excepted by the BCABLA SC during a meeting
- \* Should the SC expand its representation?
  - \* Another Citizen Representative from Big Chetac Lake (another resort owner?)
  - \* This could be possible if it is a recommendation from the public
- \* 1<sup>st</sup> Public Meeting of the SC scheduled for May 20, 2017
  - \* Minutes from April SC Meeting have not been approved for distribution yet
- \* Next SC Meeting to be scheduled for early June 2017
  - \* Expected topic – goal setting
  - \* No date has been set yet



# **Goal Setting for the Big Chetac and Birch Lakes**

# Goals

## \* What is a goal?

Something you would like to achieve.

## \* What is the purpose of setting goals?

Goals give you direction and keep you focused on where you want to end up.

# Things driving goal development...

- \* What are some things you hope to achieve for the Chetac Chain in the next few weeks or months?
- \* What are some things you hope to achieve for Chetac Chain in the next few years?

# Types of Goals

## \* Fixed:

Goals with an outcome that is based on a specific date/time

## \* Flexible:

Goals that have an outcome, but no time limit

# Realistic vs. Unrealistic Goals

- \* **Setting unrealistic goals can lead to:**
  - \* **feelings of failure**
  - \* **discontent within the constituency**
  - \* **loss of interest from stakeholders**
- \* **What makes goals unrealistic?**
  - \* **Untimely**
  - \* **Requiring unavailable resources**
  - \* **Too generally written**
  - \* **Impossible to reach**

# Why Goals Fail

- \* The goal is not written down
- \* Rewards for achieving the goals were not given
- \* The goal was unrealistic or not specific enough
- \* The goal is not really believable or little commitment exists
- \* Keep changing or switching the goals with the weather
- \* The person or group who set the goal has not told anyone else for added accountability, help, and support
- \* The goal was not incorporated into a realistic plan that includes measurements, timelines, and resources.

# Topics That May Have Associated Goals

## \* Lake Use

- \* Fishing, swimming, power sports (skiing, tubing, wake boarding), rest & relaxation, quiet sports (canoe, kayak, pontoon)

## \* Property Owners, Businesses, General Public

## \* Fisheries and Wildlife

- \* Panfish, sportfish, roughfish, zooplankton, larger bugs, waterfowl, birds, turtles, fur-bearers, etc.
- \* Regulations

## \* Aquatic Plants

- \* Native, non-native, algae
- \* Habitat, navigability, aesthetics

## \* Water Quality

- \* Water clarity, nutrients, algae (good and bad)
- \* Usability, aesthetics (visual and smell)

# Other Topics That May Have Associated Goals

## \* Lake Association

- \* Membership, webpage, fun events

## \* Public Involvement

- \* Property owners, community members, day-trippers, resort clientele, businesses, others?

## \* Shoreland Improvement

- \* Education
- \* Healthy Lakes Grant Projects
- \* Separate BCABLA fund

## \* Lake Stewardship

- \* Lake Stewardship is the practice of managing our lakes through preventative and/or remedial actions to safeguard the ecological health of our lakes for future generations.

## \* Others?



# **Goal Setting Activity**

# Management Alternatives

## \* Aquatic Plant Management

- \* Do nothing
- \* Physical removal
- \* Mechanical harvesting
- \* Application of herbicides
- \* Biological controls
- \* Nutrient reduction
- \* Native plant reintroduction
- \* Winter drawdown
- \* Dredging
- \* Other?

## \* Algae Management

- \* Barley straw
- \* Copper sulfate solutions

## \* Water Quality Management

- \* Do nothing
- \* Aquatic plant management
- \* Watershed Best Management Practices (BMPs)
- \* Shoreland BMPs
- \* Alum Treatment
- \* Trophic State Manipulation
- \* No Wake Ordinances
- \* Increase circulation/flushing
- \* Break up stratification, hypolimnetic aeration
- \* Artificial Floating wetlands
- \* Other?

# Management Alternatives

- \* **Fisheries Management**
  - \* Do nothing
  - \* Stocking
  - \* Size and bag limits
  - \* Habitat improvements
  - \* Rough fish removal
  - \* Other?
- \* **Wildlife**
  - \* Do nothing
  - \* Goose Control
  - \* Other?
- \* **Recreational Use**
  - \* Do nothing
  - \* Enforce existing Town Ordinances (water skiing)
  - \* Create new or expand Town Ordinances
    - \* other power sports, power loading restrictions
  - \* No Wake Zones
  - \* Other?
- \* **Fund Raising**
  - \* Grants
  - \* Lake Association Dues
  - \* Towns and Village
  - \* Donations
  - \* Clubs/Organizations
  - \* Chamber/Business Partners
  - \* Lake District

# Monitoring Efforts

- \* Aquatic Plant Survey (CLP and natives)
- \* Algae Monitoring
- \* Creel Survey, DNR Fish Survey, Young-of the Year Surveys
- \* Woody Habitat/Debris Survey
- \* Zooplankton Studies
- \* Waterfowl Studies, Loon Watch
- \* Frog and Toad Surveys
- \* Water Quality – Secchi, Nutrients, Chlorophyll, Dissolved Oxygen, Temperature, Metals, pH, Suspended Solids, Turbidity, Biological Oxygen Demand (BOD), Water level
- \* Tributary monitoring
- \* Lake Use
- \* Watercraft Inspection/Aquatic Invasive Species Monitoring
- \* Other?