Clam Lake PRD Annual Meeting

June 19th 2021

09:00 – 11:00 AM Jed's Laker Lounge

Below you will find the agenda we will cover off during our upcoming meeting. We will be holding this meeting at Jed's Laker Lounge due to other venue options not accepting large groups.

Agenda

1. **Call meeting to order**
2. **Review and approval of notes and minutes from 2020**
3. **Treasurer's report**
    a. Vote for approval of budget
4. **Committee Reports**
    a. Aquatic Plant Management Plan – Tim Hickey
    b. Lake Operations – Jim Lang
    c. Lake Levels – Rick Peterson
    d. Communications – Anthony Snider
5. **Old Business**
    a. Updates regarding weed harvesting equipment
    b. Clam lake events
    c. Facebook page - "**Clam Lake Protection and Rehabilitation District" (must be typed in its entirety or you will get the old Facebook page).** This is a private page for clam lake property owners only
6. **New Business**
    a. Water level monitoring system
    b. Purchase of new weed cutter
    c. Bluegill bag limit proposed changes
    d. Boat launch issues – signage, physical improvements and boat inspections
7. **Elections**
    a. We will be holding an election for officers to the board.
    b. Two slots are open – Rick Peterson and Jim Lang terms expire.
8. **Adjourn Meeting**

Treasurer's Report

Fund Balance 7/31/2020		**Income**	**$39,246.97**	**Fund Balance 4/30/2021**	
Checking	$13,465.69	**Expenses**	**$29,290.34**	Checking	$23,422.32
Edward Jones	$25,102.12			Edward Jones	$25,104.55
Total	$38,567.81			Total	$48,526.87

Clam Lake PRD – Annual Meeting

Rick Peterson
Anthony Snider
Tom Stoffel
Tim Hickey
Jim Lang

June 2021

2020 Meeting Material

2020 Clam Lake PRD Communications

Our Website: clamlakeprd.com

Information distributed through the Website is the same as our Facebook page. However the website does contain historical information such as previous annual meeting minutes and Aquatic Plant Management plans. The following links are information we shared during 2020:

- 2020 Annual Meeting Minutes
- Clam Lake PRD - Spring Report
- Clam Lake PRD - Fall Report

Treasurer Report - July 31, 2020 to April 30, 2021

CLAM LAKE PROTECTION AND REHABILITATION DISTRICT

Financial Statement July 31, 2020 through April 30, 2021

BALANCE FORWARD:	Checkbook Balance	$ 13,465.69	
	Edward Jones Account	$ 25,102.12	$38,567.81
INCOME:	Meenon Township	$ 11,156.48	
	Siren Township	$ 22,757.99	
	DNR	$ 5,232.50	
	Insurance Refund	$ 100.00	$39,246.97
EXPENSES:	Payroll	$ 6,826.89	
	Insurance	$ 4,662.25	
	Maintenance and Repair	$ 4,180.22	
	Federal & State Taxes	$ 1,681.92	
	Office	$ 370.89	
	Miscellaneous	$ 11,641.93	
	Bank charges	$ 156.20	$29,520.30
ACTUAL CASH ON HAND	Checking Account	$ 23,189.93	
	Edward Jones Account	$ 25,104.12	$48,294.48

Committee Reports

- Aquatic Plant Management Plan – Tim Hickey
- Lake Operations – Jim Lang
- Lake Levels – Rick Peterson
- Communications – Anthony Snider

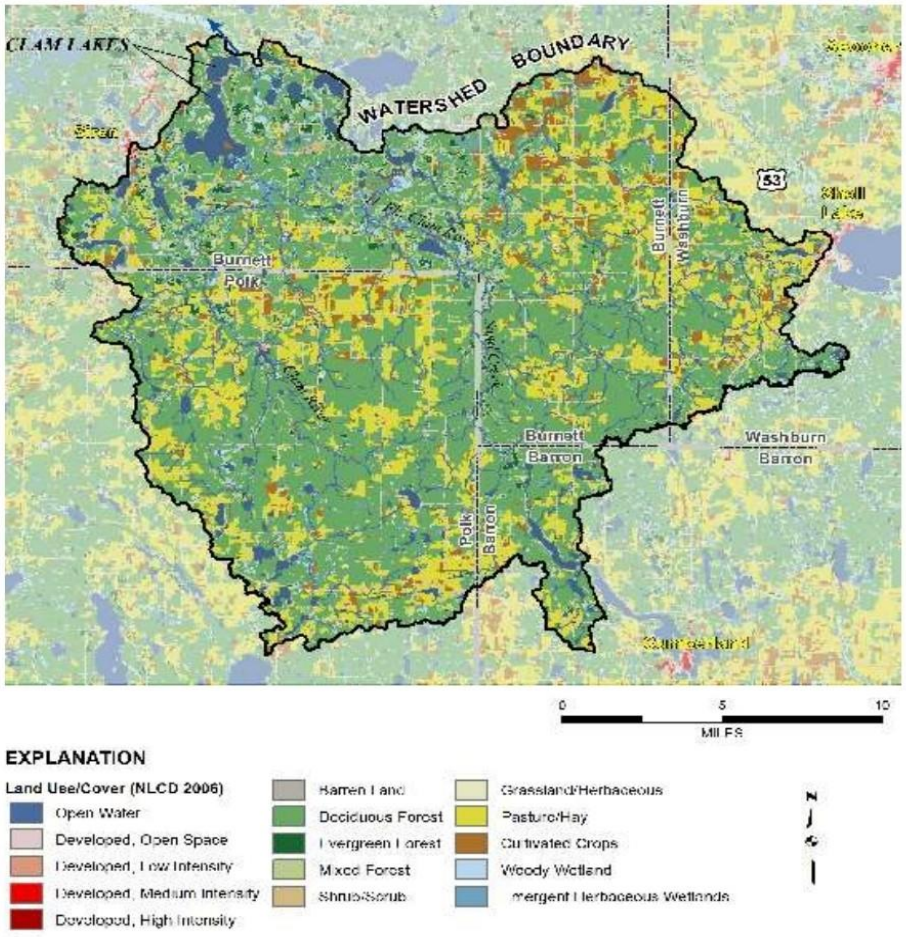
Aquatic Plant Management Update

- The overall management goal for the Clam Lakes is to maintain and enhance the positive gains in
  - Native aquatic plant growth
  - Water quality, fisheries management
  - Control of aquatic invasive species

- The last Aquatic Plant Management Plan for the Clam Lakes was completed in 2014, but was really only intended to be an interim guide to management that would support efforts being made by the
  - Clam Lake Protection and Rehabilitation District (CLPRD)
  - St. Croix Tribal Environmental Services (SCTES)
  - Wisconsin Department of Natural Resources (WDNR)
  - Other entities to restore the health of the lakes.

Aquatic Plant Management Update

- The Clam Lakes have a nearly 200,000 acre watershed.
- Nearly 70 % of it undeveloped.
- Approximately 25% is agricultural land, but most of this is pasture or hay, not row crops like corn and soybeans that often contribute to large amount of eroded soil.
- Three main tributaries drain the Clam Lakes Watershed:
- Sand Creek, Clam River, and the North Fork of the Clam River.



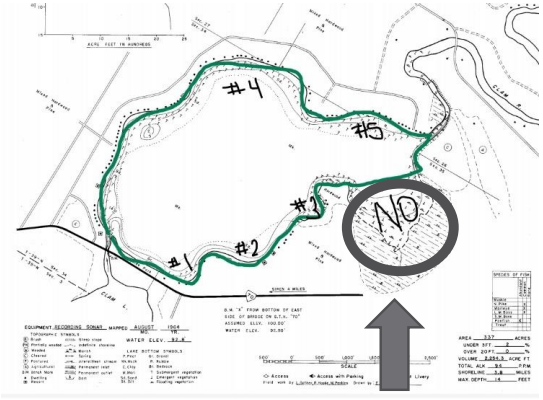


Figure 39: Wild rice in the bay east of the outlet on Lower Clam Lake in 2008 (GLIFWC, 2010)

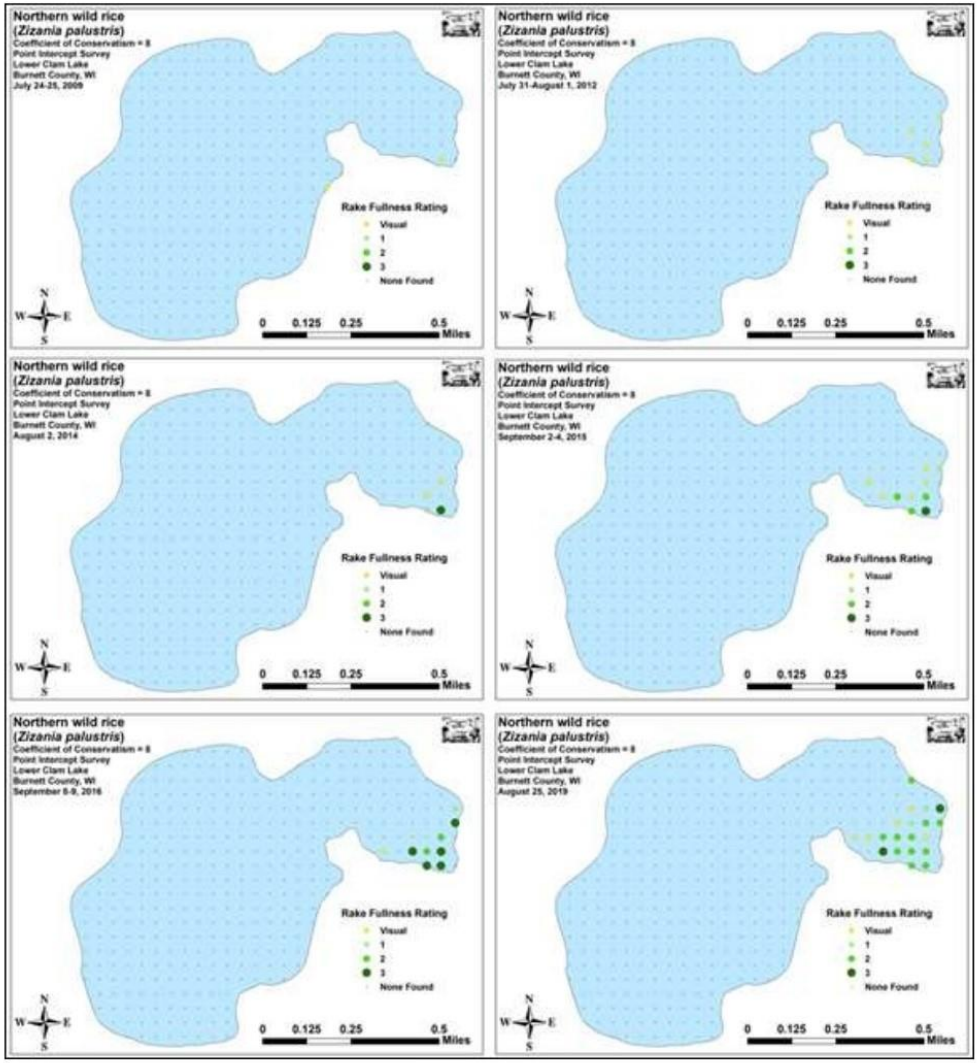


Figure 52: 2009, 2012, 2014, 2015, 2016, and 2019 northern wild rice density and distribution (Berg, 2019)

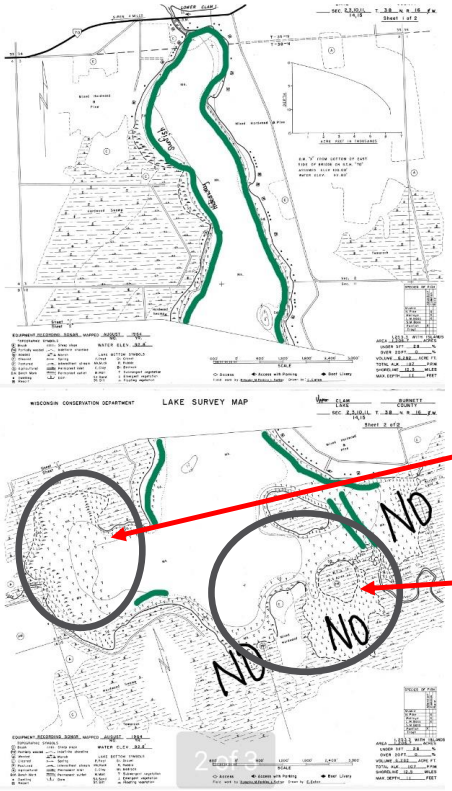


Figure 40: Wild rice in the SW bay in 2006 and 2007 (top) and in the SE bay in 2007 (bottom) on Upper Clam Lake (GLIFWC, 2010)

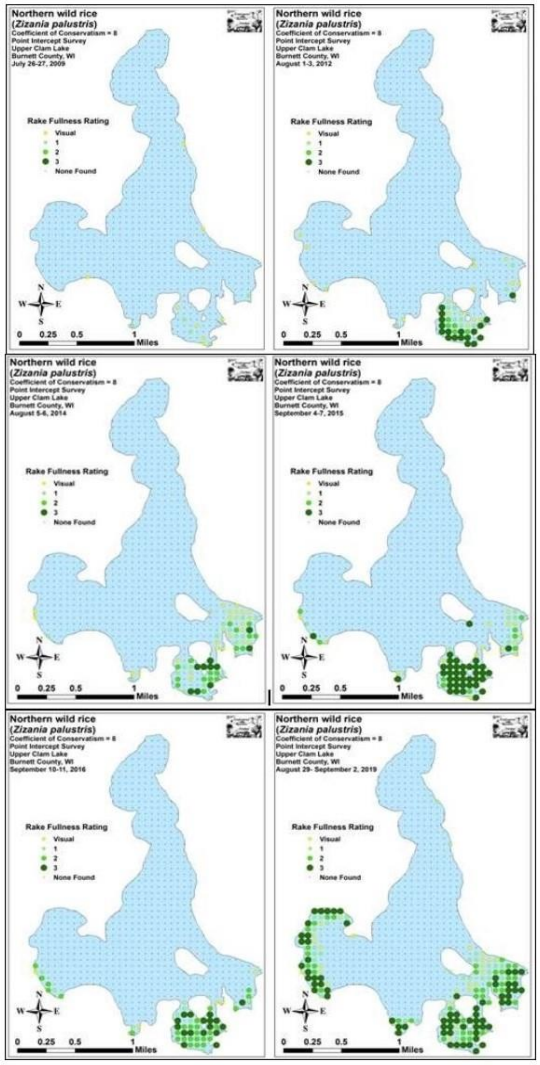


Figure 46: 2009, 2012, 2014, 2015, 2016, and 2019 northern wild rice density and distribution (Berg

CURLY-LEAF PONDWEED

Curly-leaf pondweed (CLP) is an invasive aquatic perennial that is native to Eurasia, Africa, and Australia (Figure 55). It was accidentally introduced to United States waters in the mid-1880s by hobbyists who used it as an aquarium plant. The leaves are reddish-green, oblong, and about 3 inches long, with distinct wavy edges that are finely toothed. The stem of the plant is flat, reddish-brown and grows from 1 to 3 feet long. The plant usually drops to the lake bottom by early August. CLP is commonly found in alkaline and high nutrient waters, preferring soft substrate and shallow water depths. It tolerates low light and low water temperatures. It has been reported in all states but Maine.

CLP spreads through burr-like winter buds (turions), which are moved among waterways. These plants can also reproduce by seed, but this plays a relatively small role compared to the vegetative reproduction through turions. New plants form under the ice in winter, making curly-leaf pondweed one of the first nuisance aquatic plants to emerge in the spring. It becomes invasive in some areas because of its tolerance for low light and low water temperatures. These tolerances allow it to get a head start on and out compete native plants in the spring. In mid-summer, when most aquatic plants are growing, CLP plants are dying off. Plant die-offs may result in a critical loss of dissolved oxygen. Furthermore, the decaying plants can increase nutrients which contribute to algal blooms, as well as create unpleasant stinking messes on beaches. CLP forms surface mats that interfere with aquatic recreation.

Figure 55: CLP plants and turions

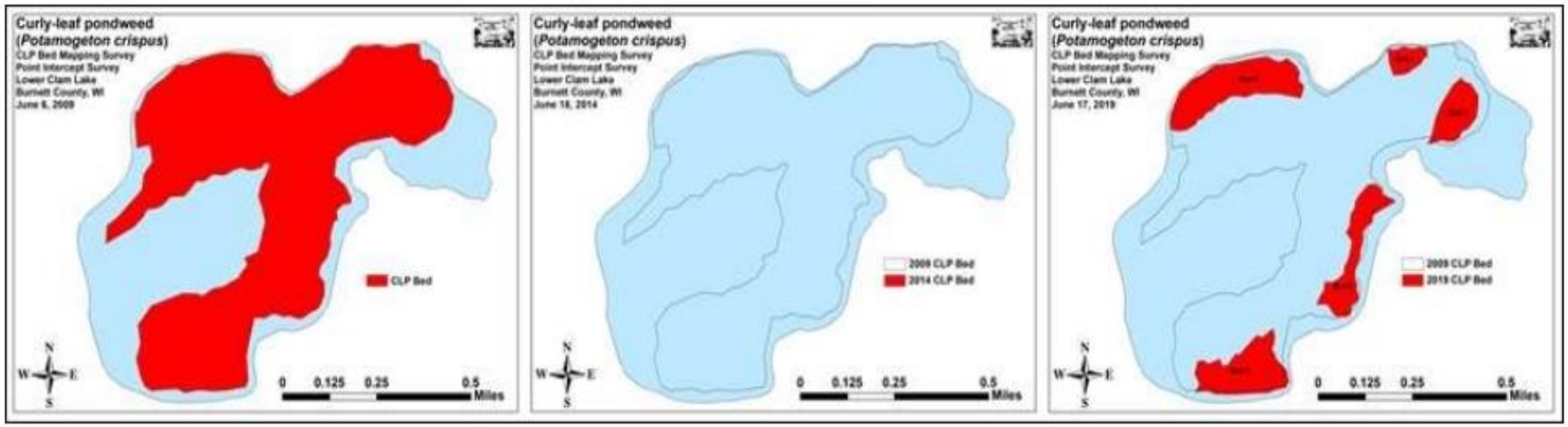


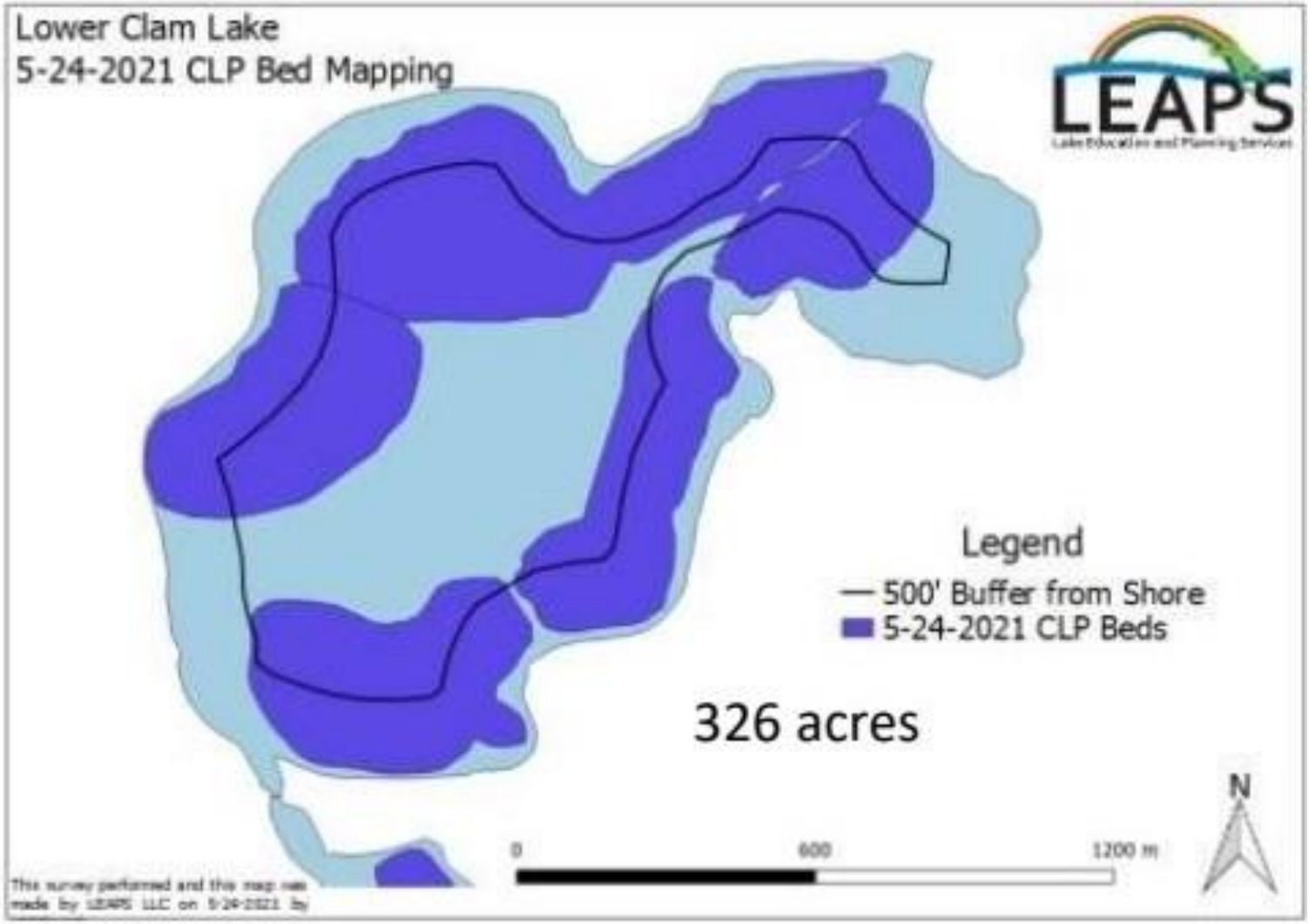
Figure 33: 2009, 2014, and 2019 early-season CLP Beds

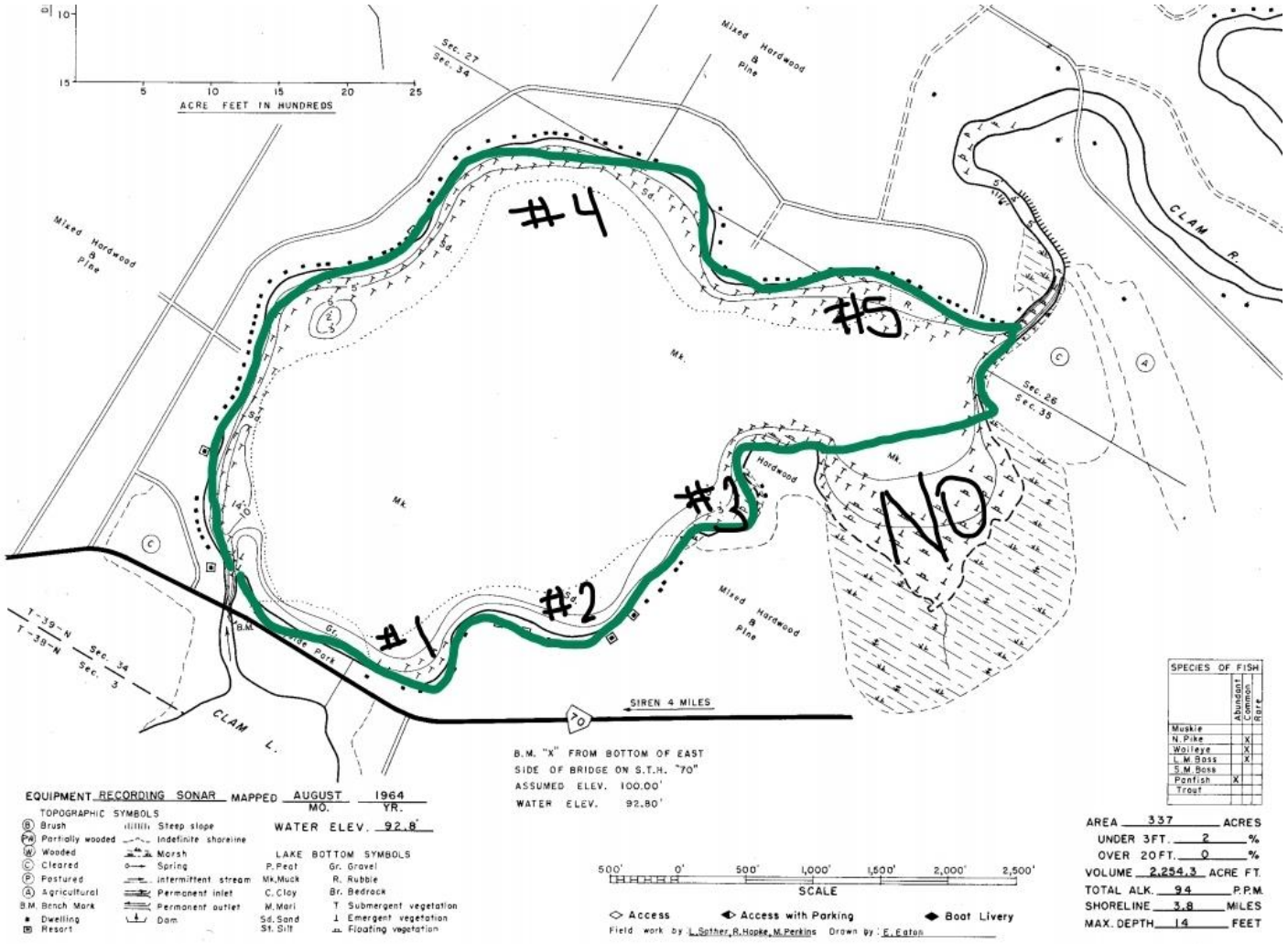
Lower Clam Lake, 2020 CLP Harvesting Areas (based on 2019 ERS survey work and June 11, 2020 LEAPS Tour of the Lake)

2020 Lower Clam Lake, Burnett County CLP Bed Harvesting - LEAPS 6/11/2020			
Site Name	**Label**	**Total Acres**	**Priority**
North Shore MidTown	NS-Midtown	19.91	1st
North Shore Near Outlet	NS-NearOutlet	3.37	2nd
South Shore Boat Landing	SS-BoatLanding	14.75	3rd
Southeast Shore Shady Oaks	SES-ShadyOaks	11.66	4th
East Shore Wild Rice	ES-WildRice	*8.05	not harvested
		49.69	

***CLP Bed harvesting would begin June 15th and end by June 22nd**

Red Lines = 2020 Navigation Lanes

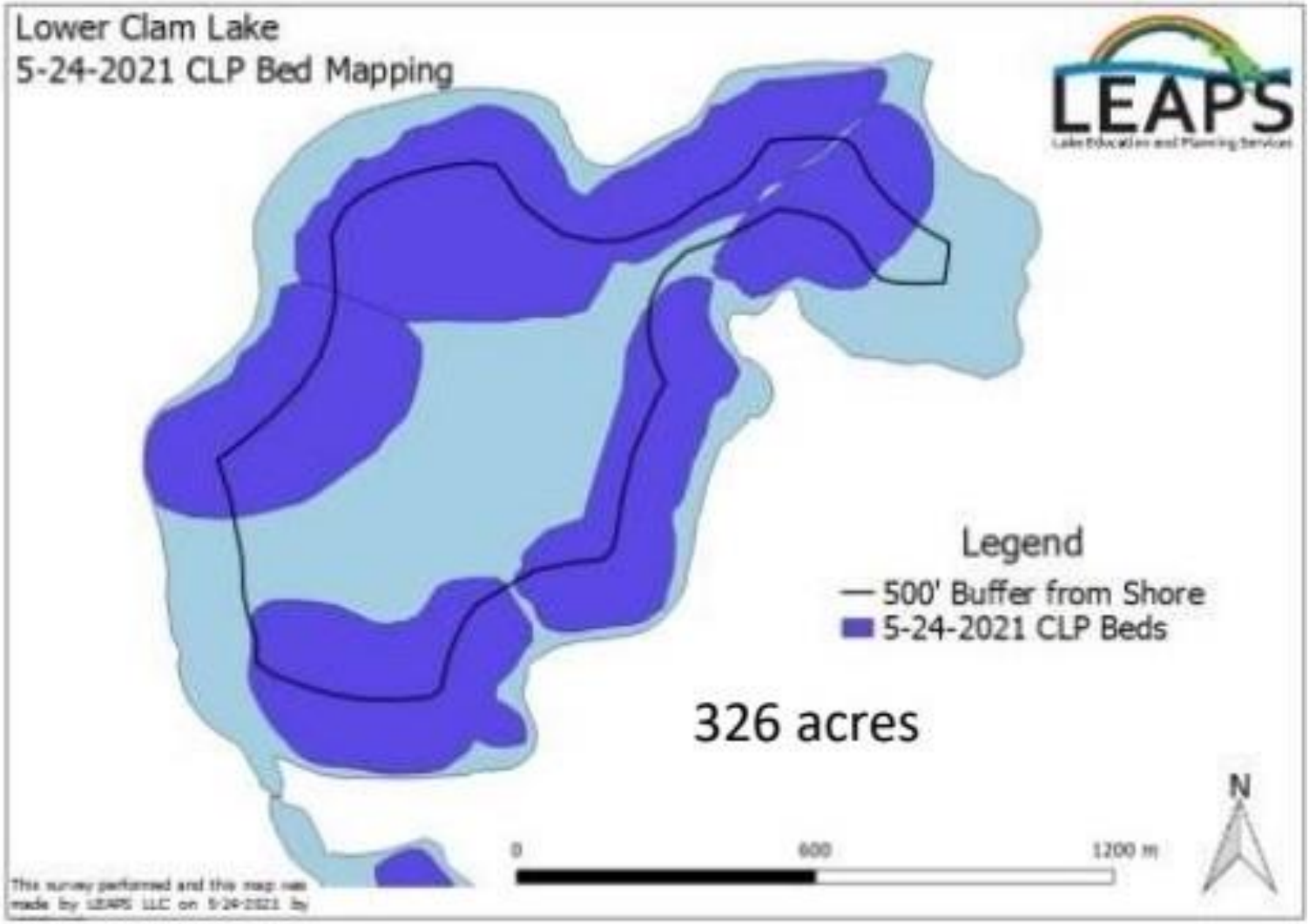

Lower Clam Lake
5-24-2021 CLP Bed Mapping
LEAPS
Legend
500' Buffer from Shore
5-24-2021 CLP Beds
326 acres
N
0
600
1200 m


ACRE FEET IN HUNDREDS
5 10 15 20 25
10
15
Sec. 27
Sec. 34
Mixed Hardwood & Pine
CLAM R.
#4
#5
#3
#2
#1
NO
Mk.
Sec. 26
Sec. 35
Hardwood
Gr.
B.M.
T-39-N
T-39-N
Sec. 34
Sec. 3
CLAM L.
SIREN 4 MILES
70
B.M. "X" FROM BOTTOM OF EAST SIDE OF BRIDGE ON S.T.H. "70"
ASSUMED ELEV. 100.00'
WATER ELEV. 92.80'
EQUIPMENT RECORDING SONAR MAPPED AUGUST 1964
MO. YR.
WATER ELEV. 92.8'
TOPOGRAPHIC SYMBOLS
B Brush
Pw Partially wooded
W Wooded
C Cleared
P Pastured
A Agricultural
B.M. Bench Mark
Dwelling
Resort
Steep slope
Indefinite shoreline
Marsh
Spring
Intermittent stream
Permanent inlet
Permanent outlet
Dam
LAKE BOTTOM SYMBOLS
P. Peat
Mk. Muck
C. Clay
M. Marl
Sd. Sand
St. Silt
Gr. Gravel
R. Rubble
Br. Bedrock
T Submergent vegetation
Emergent vegetation
Floating vegetation
500' 0' 500' 1,000' 1,500' 2,000' 2,500'
SCALE
Access
Access with Parking
Boat Livery
Field work by L. Sather, R. Hopke, M. Perkins Drawn by: E. Eaton
SPECIES OF FISH
Abundant
Common
Rare
Muskie
N. Pike X
Walleye X
L.M. Bass X
S.M. Bass
Panfish X
Trout
AREA 337 ACRES
UNDER 3FT. 2 %
OVER 20FT. 0 %
VOLUME 2,254.3 ACRE FT.
TOTAL ALK. 94 P.P.M.
SHORELINE 3.8 MILES
MAX. DEPTH 14 FEET

2021-2025 Clam Lakes Harvesting Maps

Map 1 - CLP Bed Harvesting Lanes and 500-ft allowable limit for CLP expansion

Figure 1: Light green polygons = bed harvesting lanes; Light green line = 500-ft from shore; Green checked polygons = 2019 CLP beds; Orange crosses = 2019 wild rice; Red dashed line = outline of 2009 CLP bed.


Lower Clam Lake
5-24-2021 CLP Bed Mapping
LEAPS
Legend
500' Buffer from Shore
5-24-2021 CLP Beds
326 acres
N
0
600
1200 m

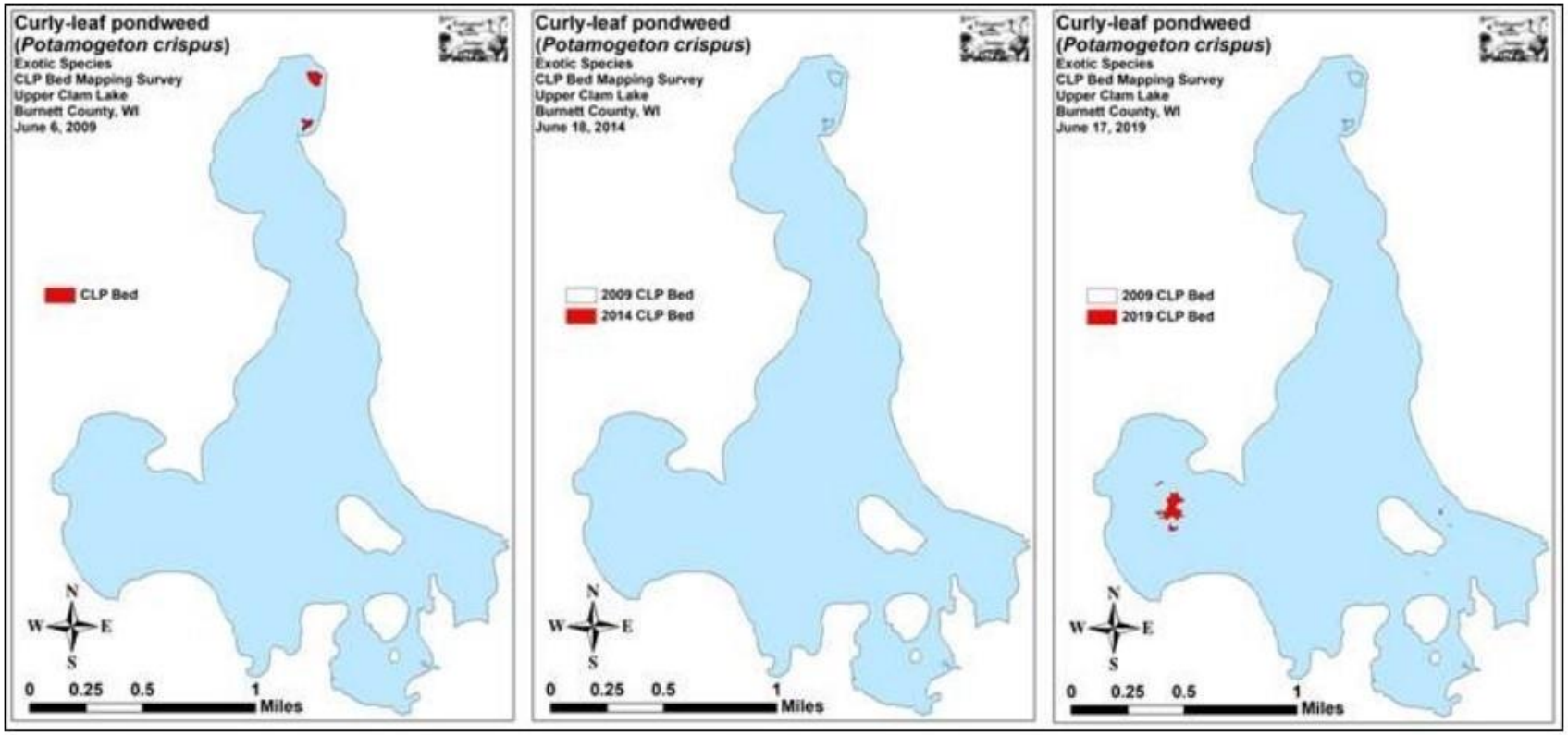
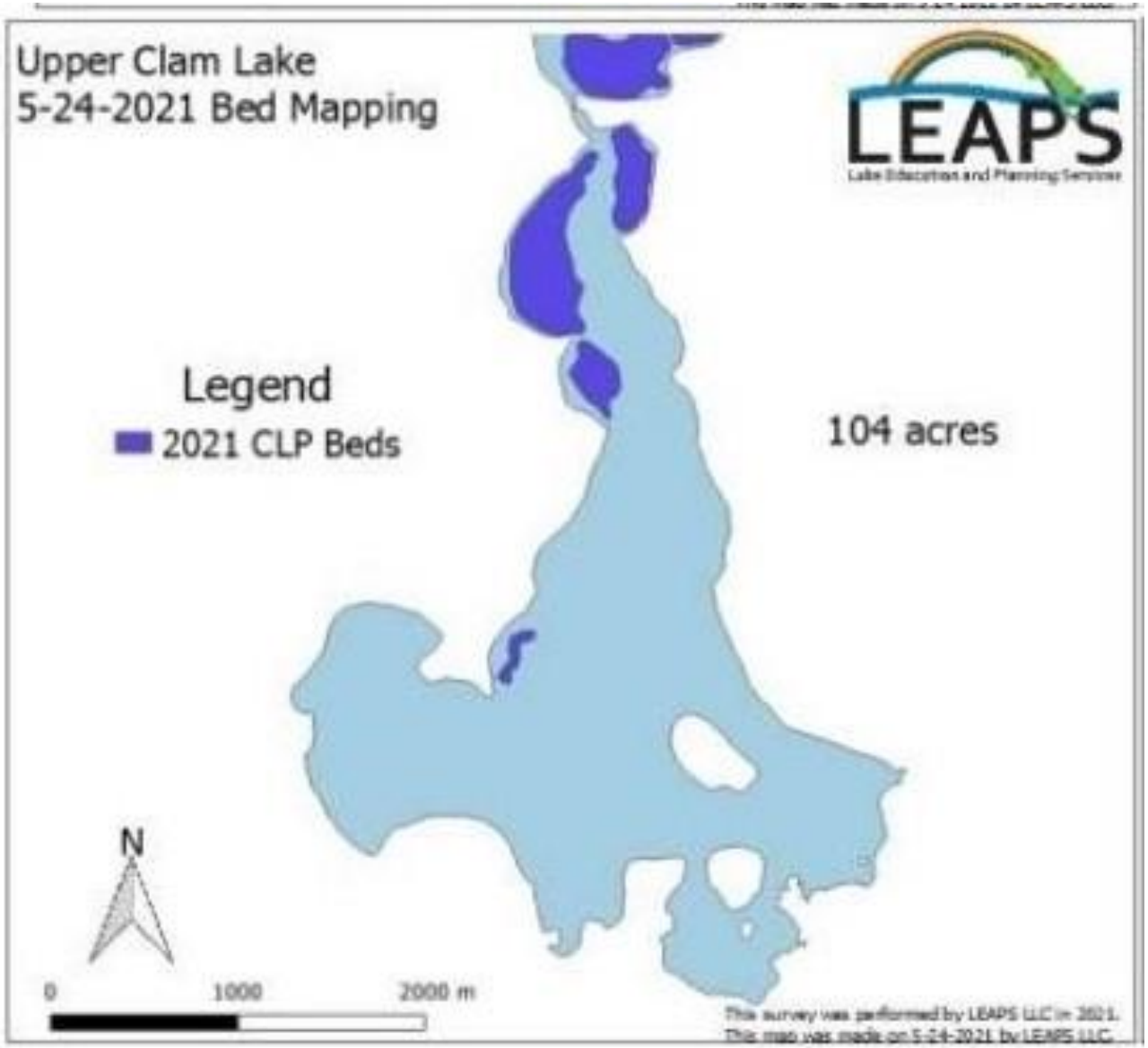
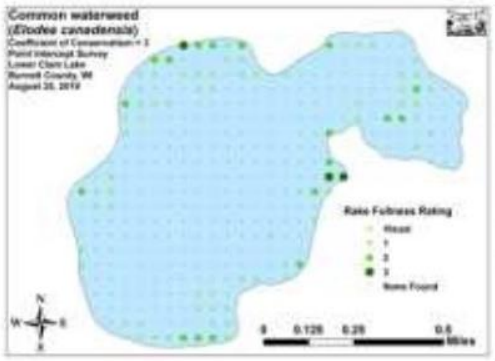


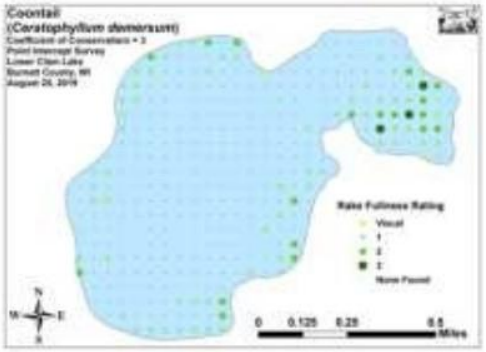
Figure 25: 2009, 2014, and 2019 early-season CLP Beds

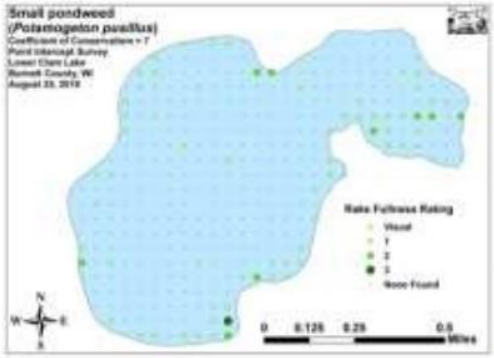

Upper Clam Lake
5-24-2021 Bed Mapping
LEAPS
Legend
2021 CLP Beds
104 acres
N
0
1000
2000 m
This survey was performed by LEAPS LLC in 2021.
This map was made on 5-24-2021 by LEAPS LLC.

Native Plants

Lower Clam Lake


Common waterweed
(Elodea canadensis)
Rake Fullness Rating
None Found
0 0.125 0.25 0.5
Miles


Coontail
(Ceratophyllum demersum)
Rake Fullness Rating
None Found
0 0.125 0.25 0.5
Miles


Small pondweed
(Potamogeton pusillus)
Rake Fullness Rating
None Found
0 0.125 0.25 0.5
Miles

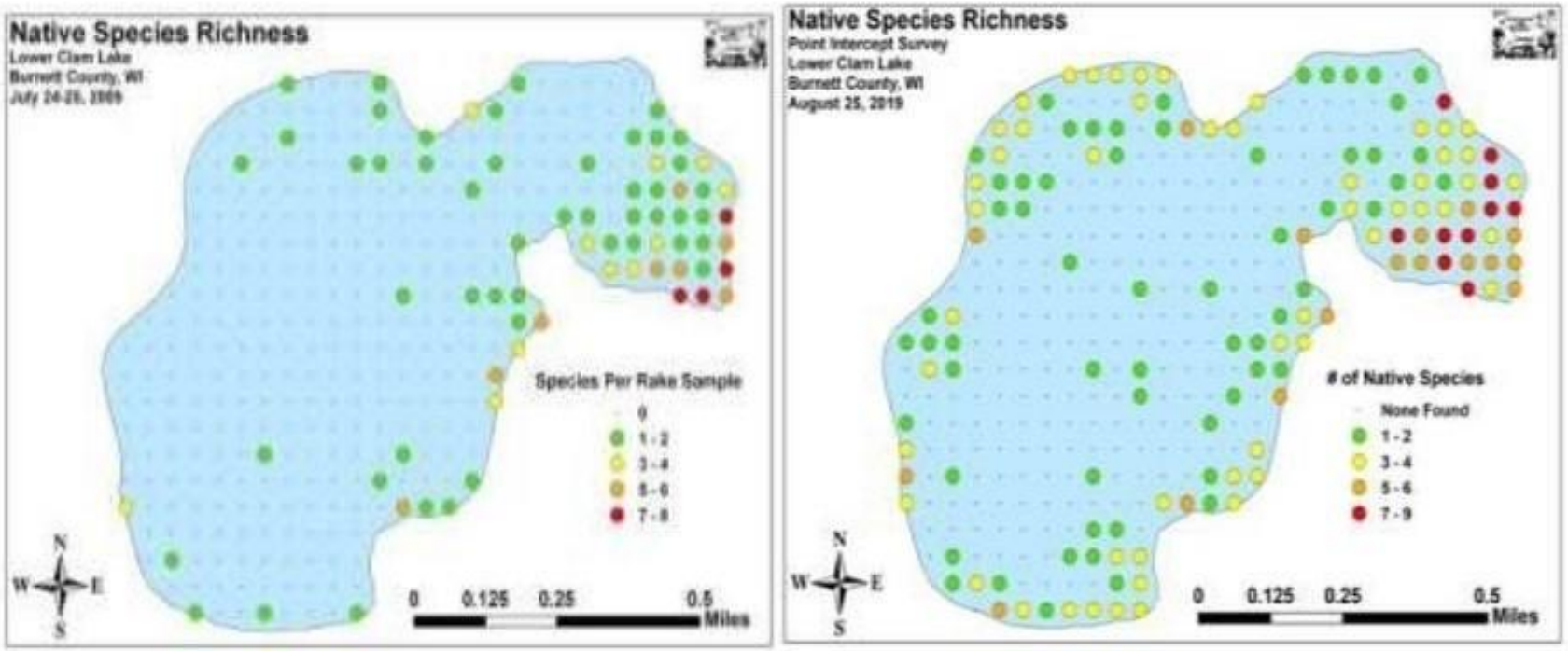
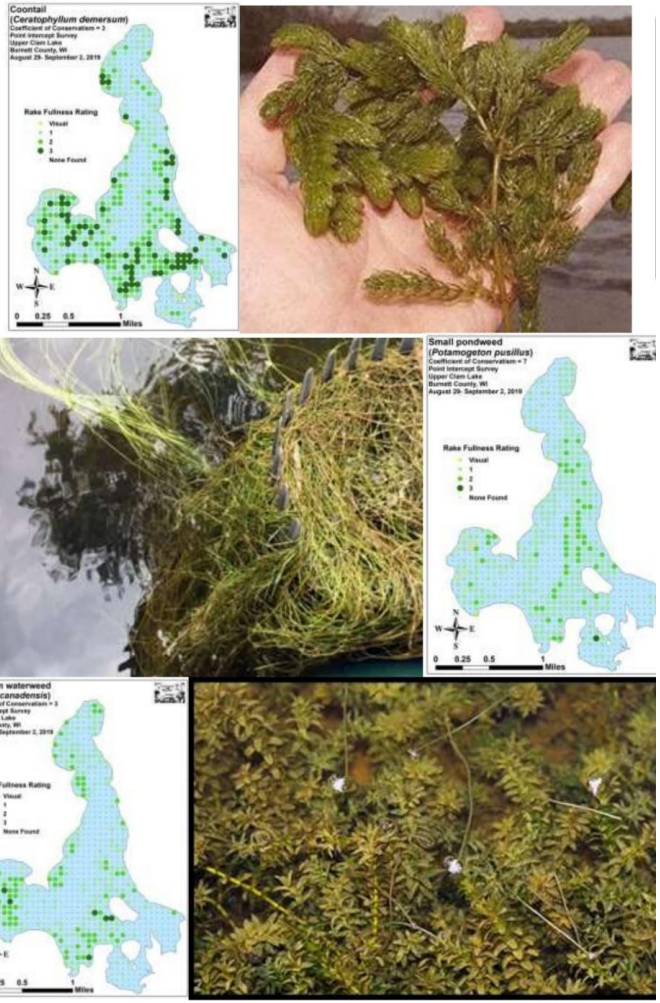


Figure 35: 2009 and 2019 native species richness

Native Plants

Upper Clam Lake


Coontail
(Ceratophyllum demersum)
Coefficient of Conservatism = 3
Point Intercept Survey
Upper Clam Lake
Burnett County, WI
August 29- September 2, 2019
Rake Fullness Rating
Visual
1
2
3
None Found
N
W
E
S
0 0.25 0.5 1
Miles
Small pondweed
(Potamogeton pusillus)
Coefficient of Conservatism = 7
Point Intercept Survey
Upper Clam Lake
Burnett County, WI
August 29- September 2, 2019
Rake Fullness Rating
Visual
1
2
3
None Found
N
W
E
S
0 0.25 0.5 1
Miles
Common waterweed
(Elodea canadensis)
Coefficient of Conservatism = 3
Point Intercept Survey
Upper Clam Lake
Burnett County, WI
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1
2
3
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N
W
E
S
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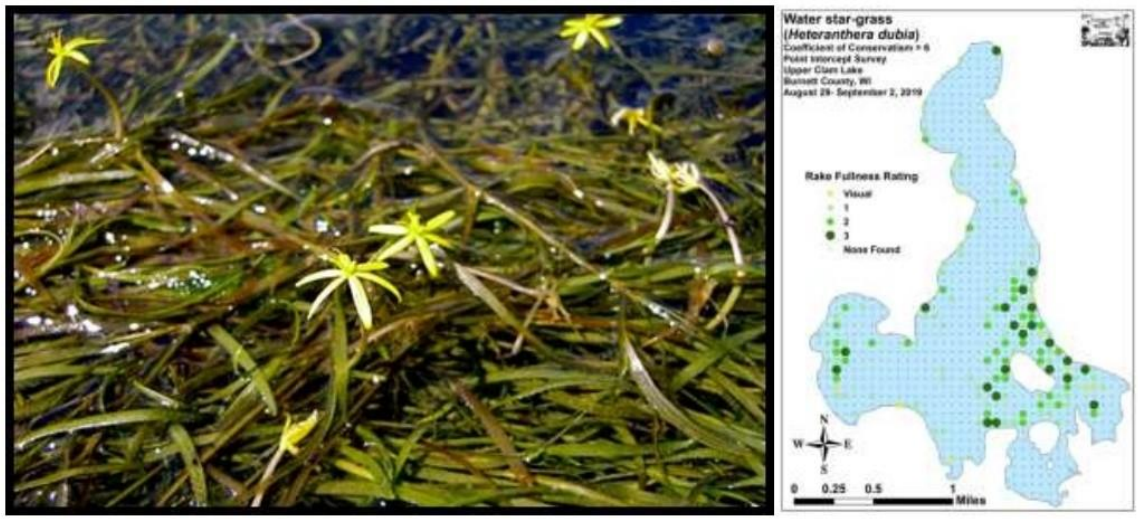

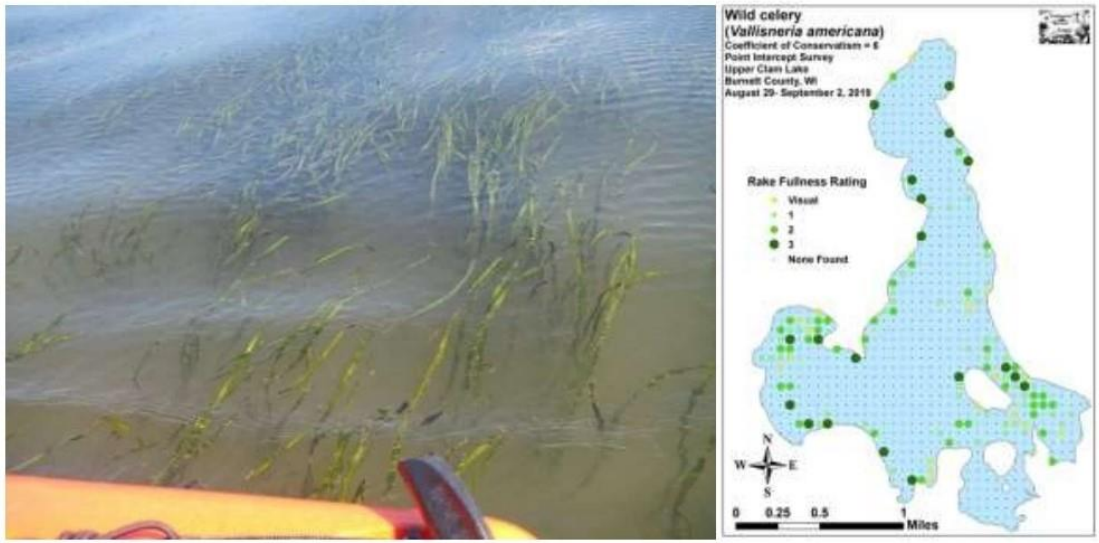

Figure 77: Distribution and density of coontail, small pondweed, common waterweed, water star-grass, and water celery (Berg, 2019)

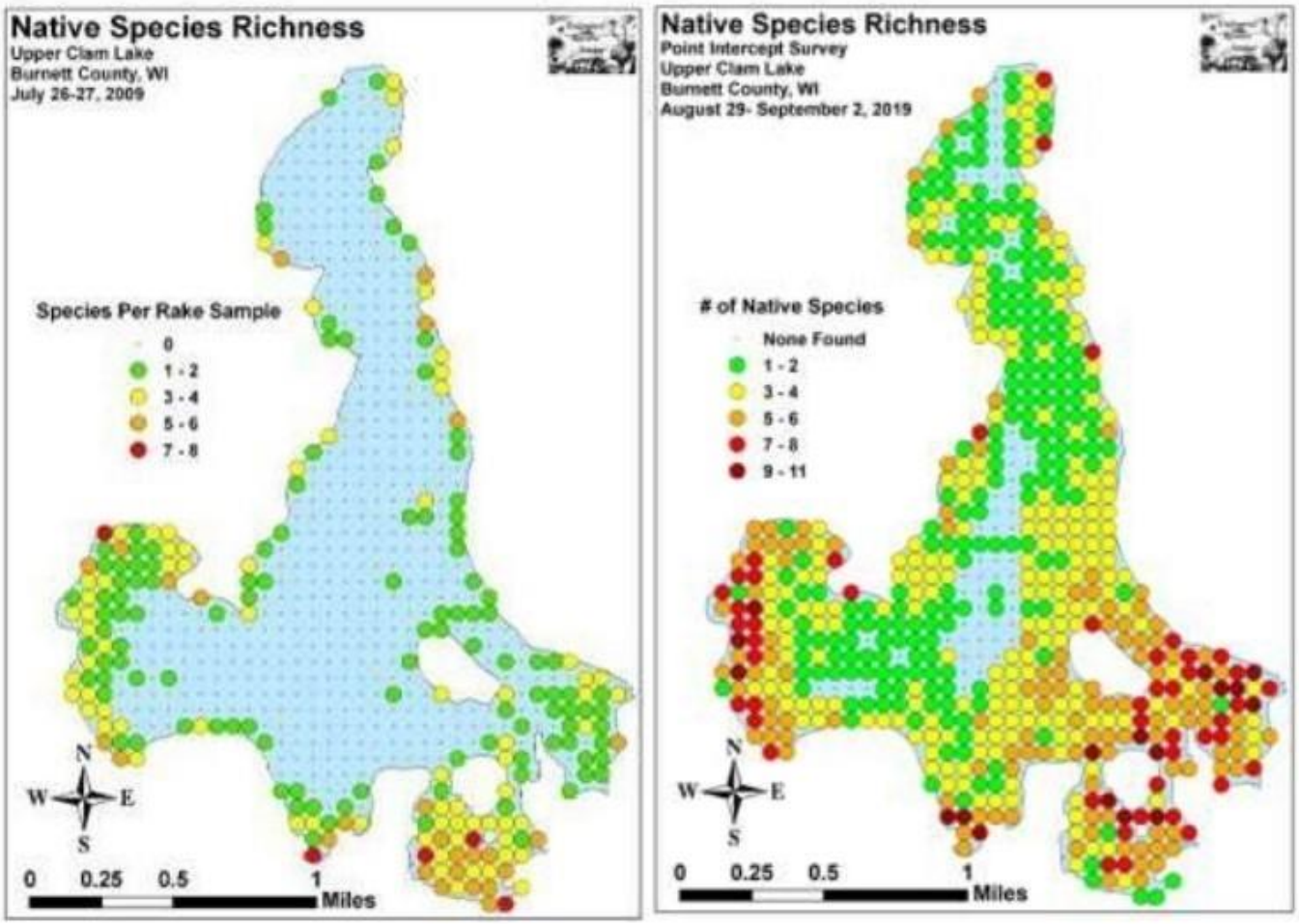

Figure 27: 2009 and 2019 native species richness

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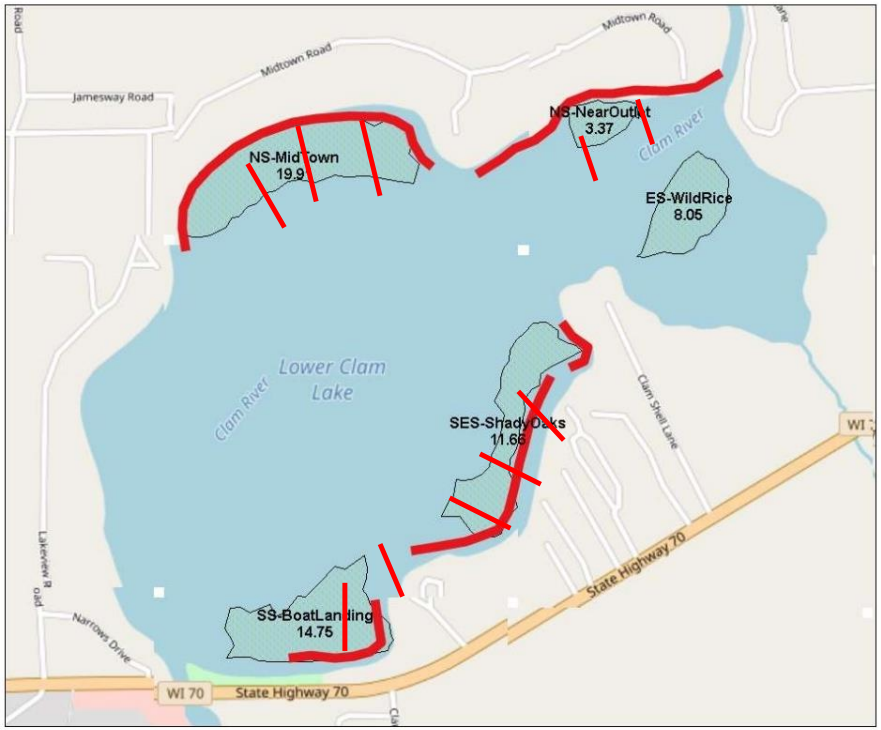

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***CLP Bed harvesting would begin June 15th and end by June 22nd**

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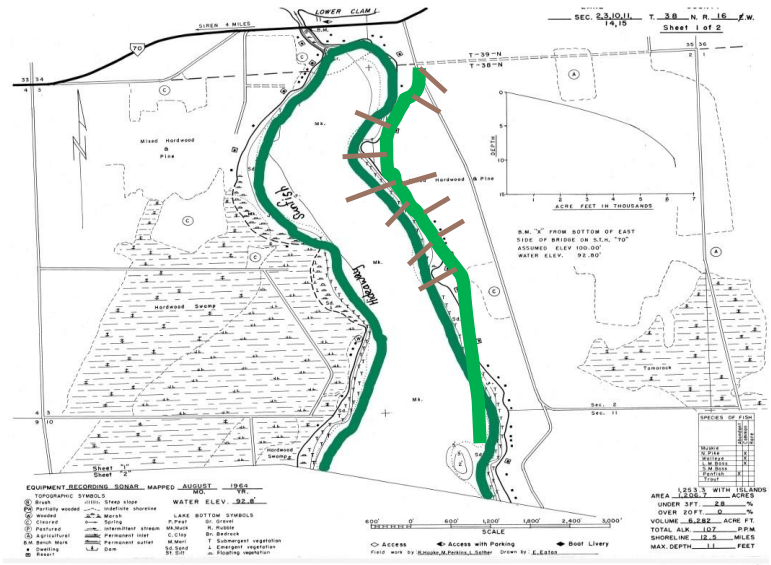
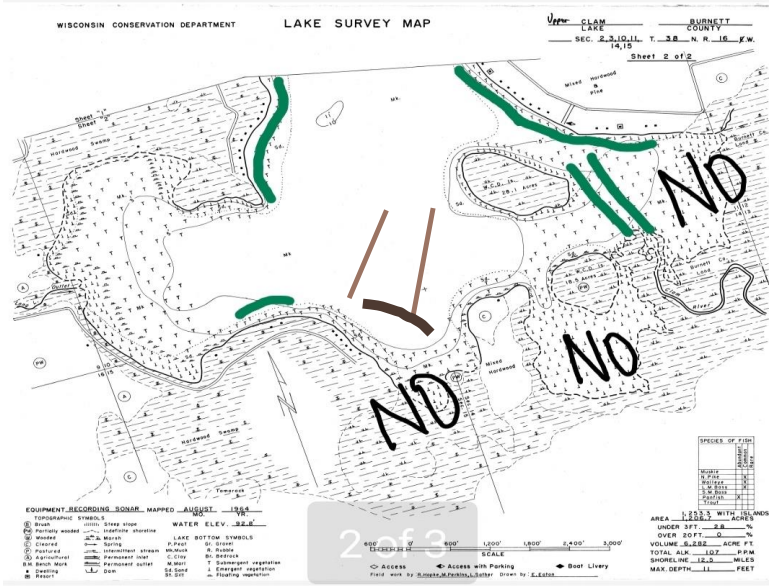

LOWER CLAM L.
SIREN 4 MILES
70
SEC. 2,3,10,11, 14,15 T. 38 N. R. 16 W.
Sheet 1 of 2
T-39-N
T-38-N
Mixed Hardwood & Pine
Hardwood Swamp
Hardwood & Pine
Tamarack
Sec. 2
Sec. 11
DEPTH
ACRE FEET IN THOUSANDS
B.M. "A" FROM BOTTOM OF EAST SIDE OF BRIDGE ON S.T.H. "70" ASSUMED ELEV 100.00' WATER ELEV. 92.80'
SPECIES OF FISH
Muskie
N. Pike
Walleye
L.M. Bass
S.M. Bass
Panfish
Trout
EQUIPMENT RECORDING SONAR MAPPED AUGUST MO. 1964 YR.
WATER ELEV. 92.8'
TOPOGRAPHIC SYMBOLS
Brush
Partially wooded
Wooded
Cleared
Pastured
Agricultural
B.M. Bench Mark
Dwelling
Resort
Steep slope
Indefinite shoreline
Marsh
Spring
Intermittent stream
Permanent inlet
Permanent outlet
Dam
LAKE BOTTOM SYMBOLS
Gr. Gravel
P. Peat
Mk. Muck
C. Clay
M. Marl
Sd. Sand
Slt. Silt
Br. Rubble
Br. Bedrock
Submergent vegetation
Emergent vegetation
Floating vegetation
600' 0' 600' 1,200' 1,800' 2,400' 3,000'
SCALE
Access
Access with Parking
Boat Livery
Field work by R. Hayden, M. Perkins, L. Sather Drawn by E. Eaton
125.3 % WITH ISLANDS
AREA 1,255.7 ACRES
UNDER 3FT. 28 %
OVER 20FT. 0 %
VOLUME 6,282 ACRE FT.
TOTAL ALK. 107 P.P.M.
SHORELINE 12.5 MILES
MAX. DEPTH 11 FEET


WISCONSIN CONSERVATION DEPARTMENT
LAKE SURVEY MAP
Upper CLAM LAKE
BURNETT COUNTY
SEC. 2,3,10,11, 14,15 T. 38 N. R. 16 W.
Sheet 2 of 2
Mixed Hardwood & Pine
Hardwood Swamp
Tamarack
Burnett Co.
NO
NO
NO
SPECIES OF FISH
Muskie
N. Pike
Walleye
L.M. Bass
S.M. Bass
Panfish
Trout
EQUIPMENT RECORDING SONAR MAPPED AUGUST MO. 1964 YR.
WATER ELEV. 92.8'
125.3 % WITH ISLANDS
AREA 1,255.7 ACRES
UNDER 3FT. 28 %
OVER 20FT. 0 %
VOLUME 6,282 ACRE FT.
TOTAL ALK. 107 P.P.M.
SHORELINE 12.5 MILES
MAX. DEPTH 11 FEET

Lake Operations Update

- Weed Harvesting Equipment Update
- Weed Harvesting Permit Update
- Loads Removed
- Members Questions

2021 Weed Harvesting Crew

Jim Lang

John Hager

Doug Lamere

Tim Hickey

Joe Wilkerson

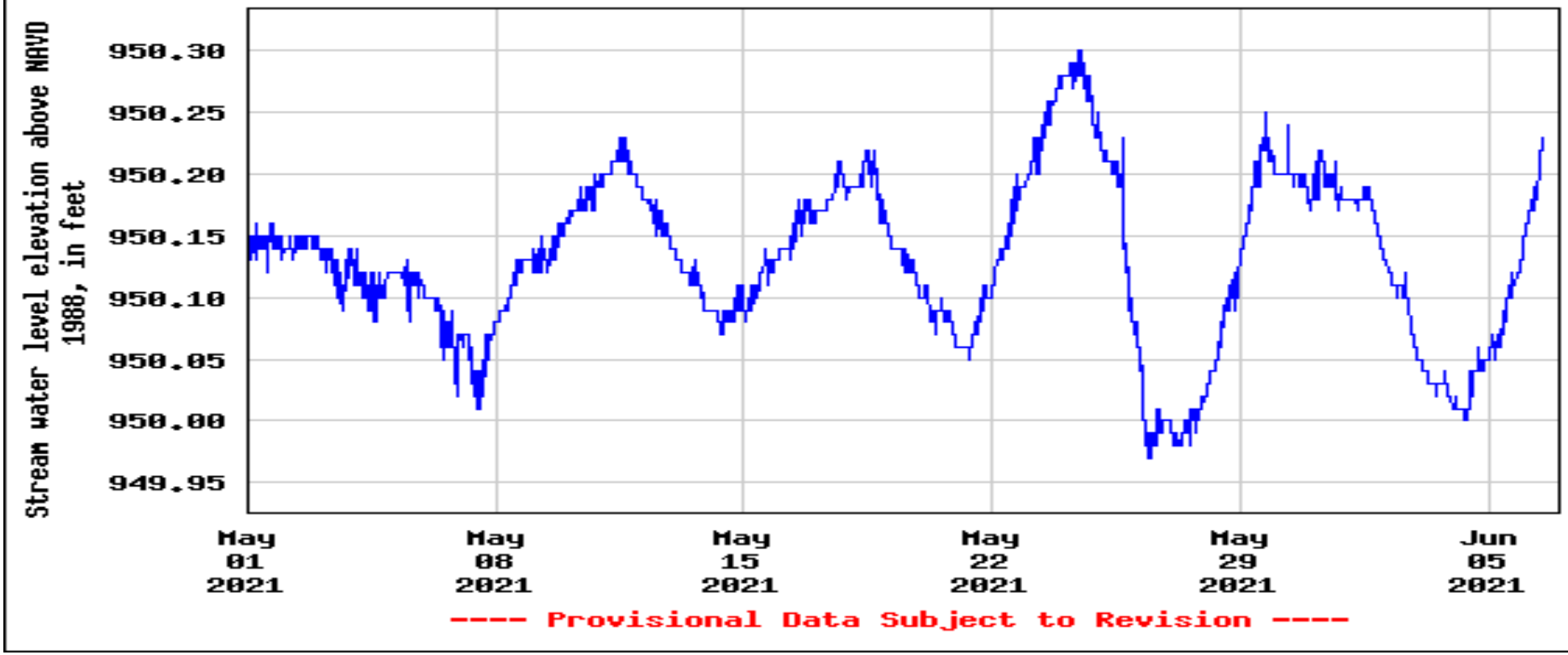
Lake Level Update – Monitoring System

- Burnett County has purchased an Automated Gauging Station which has been placed at the Highway 70 bridge as well as staff gauges and cameras at the following locations.
- Monitoring water level gauges and cameras are located at: A) Soderberg Road B) Malone Road C) Clam Dam Park
- Water level range is: 949.40 – 950.20. This level was determined from a court order in 1956…Each 1/10 of a foot elevation level on the gauge equates to ~1.2 inches of water in the lake.
- The USGS owns, operates, and maintains all equipment and the website, with the county providing assistance with gauge cleaning and other minor concerns. Burnett County and USGS will share the annual maintenance costs.
- Public website link: USGS Current Conditions for USGS 454909092194101 CLAM R. AT CLAM LAKE OUTFLOW CANAL NR SIREN, WI.
  - The USGS website has the ability to “alert” county personnel or homeowners when the lake reaches a given level of concern

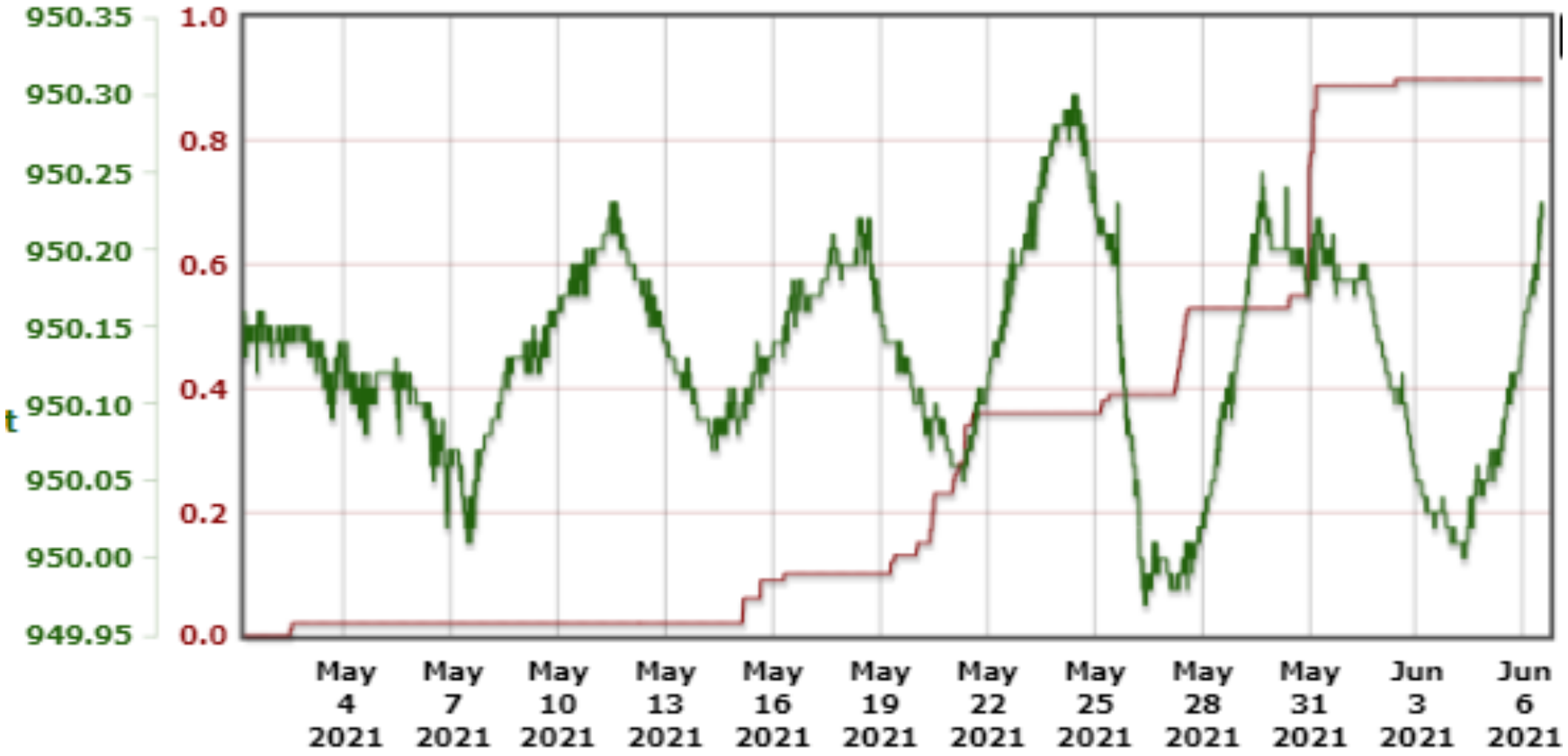
Lake Level Update – Monitoring

USGS

USGS 454909092194101 CLAM R. AT CLAM LAKE OUTFLOW CANAL NR SIREN, WI.



Lake Level Update – Monitoring



Lake Level Update – County Message

How is Clam Dam Operated…What is required?

- We're required by the WDNR to maintain the summer elevation (as read on the Highway 70 bridge) between a minimum of 949.40 and a maximum of 950.20. Nobody wants it on the lower end so we try to keep it at 950.10. In late fall we pull all the gates and don't put them in until after spring runoff subsides.

How do we know to put in or pull out the gates?

- We monitor 3 tributaries to Clam Lake: the south fork, the north fork, and a large wetland on County Road B. Monitoring the tribs allows us to know when to pull or drop gates to allow for "excess" water to move through the system while keeping the water level the same as much as possible. If we get significant rain and the tribs and lake levels rise, we are required to have all of the gates out when the lake level hits 950.70. Conversely, if the tribs are dropping we will close gates to keep the level from dropping below 950.10 as much as possible. Holding the water level at 950.10 can be difficult as we use large gates at the dam which changes the water level at the dam significantly but only changes the lake level a little bit. Sometimes, even if we have a large number of gates out, we cannot put them back in until the lake drops below the maximum and we can keep it from going over max. The volume of water that comes in to the lake is what dictates how many gates are out, as we are required to keep the lake at the specified elevation.

Old Business

Clam Lake 2021 Events Update

- Clam Lake Activities Committee – This committee would be responsible for organization and coordination of lake type activities sponsored by the PRD. This is a volunteer position for 3 or 4 folks that would have an interest in this type of effort. Please submit your name to clamlake6600@gmail.com if you are interested.

- Independence Day Pontoon Parade – The parade will be held on Saturday July 3rd…Prizes will be awarded for 1st – 2nd – 3rd places.

Communications Update

New Clam Lake PRD Facebook Private Group

The Clam Lake PRD has created a Facebook Private Group for **residents / property owners only**. The intent is to communicate, along with our Website, information important to property owners such as:

- Lake Events
- Annual Meeting
- DNR Information
- Weed Harvesting
- State and County Activities

Access Instructions:

- From your Facebook page in the search box at the top of the screen enter **Clam Lake Protection and Rehabilitation District**
- Click Join
- Once your request is approved, you'll be notified that you've become a member

Note: Prior to approval we are verifying property ownership through the Burnett County Property Tax Search

New Business

New Business Funding Requests

- Water level monitoring system funding request.
  - PRD has been asked to contribute to the cost of the monitoring system
  - $20,000 funding request from county to the PRD
  - If approved…we would make 4 annual payments of $5000 to county
  - Discussion and vote required

- Purchase of new weed cutter
  - Obtained two bids - $270,000 and $192,000
  - Applying for grant to cover ~50% of cost
  - Require 1/3 down to begin cutter build ($65,000)
  - Obtain loan for down payment and balance
  - Raise mil rate .25 for a total of .75…Example: Property valued at $100,000 currently at $50 would increase to $75 per year
  - Discussion and vote required

New Business Items cont.

- Bluegill bag limit potential change
  - Suggestions have been made to lower from 25 to 10

- Boat launch issues
  - Signage
  - Power Loading
  - Physical Improvements
  - Boat Inspections

Board Seat Elections

- Two positions are available
  - Rick Peterson and Jim Lang terms have expired


Thank You...

Appendix

Lake Level Update – Monitoring System Intro

- The following information and additional slides will explain a proposal to purchase an automated lake level monitoring system for the management of the clam dam and its associated lake levels. This system will allow for video monitoring stations for the dam operations as well as the general public to view. This system does have advantages and is part of a greater project to someday have an automated gate management system tied into the computerized monitoring system(this is years out however).

- **Please review the following information carefully...**This proposal is asking the PRD to share in the purchase funding of this system. The cost is $50k and the county would like to get the PRD to contribute up to $25k for the initial purchase. We would pay this contribution to the county in 4 yearly installments. The remaining maintenance costs would all be picked up by the county year over year. **This funding decision is completely up to you all and we will be asking for your vote of “yea” or “nay” in a future communication.**

- The USGS would own, operate, and maintain all equipment and the website with the county providing assistance with gauge cleaning and other minor concerns.

Lake Level Update – The Issues

- The river system (and lake) fluctuate regularly and have seen significant flash flooding events, especially over the last several years.
- Homes, cabins, and other structures below the full flood elevation (as determined by factors related to their specific property) have a potential of flooding at different elevations and/or times.
- Some roads & driveways servicing these dwellings are flooded when the water level reaches 952’ MSL (mean sea level).
- Many lake properties are not occupied by full-time residents, but may be seasonal at best. These property owners are unaware of water (lake) elevation changes so may not know when to adjust boat lifts and/or docks.
- Burnett County needs an efficient, accurate, and timely means of monitoring.
- The County needs a means to collect real time information necessary to alert residents – both full time and seasonal - about high water and any potential evacuation needs.

Lake Level Update – Benefits

- Allow landowners to access real time water elevation data, as it relates to the Clam Lake Narrows, from a PC or smart phone. The gauge data from the narrows on Hwy 70 would be displayed on the USGS webpage for all public to view. Elevations are downloaded to the website hourly.
- With the ability to view data from anywhere, property owners can observe lake levels to determine possible structure issues such as cabins, docks and boat lifts and whether or not they need to make adjustments.
- This would allow homeowners to know if and when any of their infrastructures, such as driveways and roads, would be flooding. A line will be displayed on the USGS webpage indicating the 952' MSL mark where roads and driveways will be impacted. Continuous year round monitoring allows the homeowners and the county to know what the lake level is at any given point.
- The proposed project will leverage existing data to provide real time monitoring and flood inundation modeling for the Clam River and Lakes. This would provide homeowners a benchmark to know what water elevation is normal for them, and when the lake is approaching an elevation that could be problematic.
- The station would show recent history to show whether rising/falling/stable.
- This, paired with BEACON (Burnett County WI Emergency Alert System), meets the FEMA requirement of an emergency notification system. This would allow the county to notify residents of flooding or any potential evacuations.
- This monitoring program will provide the county with a real-time rain gauge, and allow them to react faster to flooding events or dam issues such as debris, or any other event requiring an immediate response.
- The USGS website has the ability to "alert" county personnel or homeowners when the lake reaches a given level of concern