#### Clam Lake PRD Annual Meeting June 25th 2022

#### **Agenda**

- 1. Call meeting to order
- 2. Review and approval of notes and minutes from 2021
- 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
- d. Boat launch updates

#### 6. New Business

- a. New Harvester purchase details DNR grant and financing info
- b. GoFundMe site Help with increasing operational costs
- c. Future of the PRD

#### 7. Elections

- a. We will be holding an election for a new officer to the board.
- b. One position is open Anthony Snider's term is up and he has decided not to run again. We are looking to replace Anthony with someone that is able to fulfil the role of communications director. This role is responsible for website and Facebook management, as well as organizing meeting notes and all other communications aspects for the PRD. If you are interested or know someone that may be a fit for this role, please bring your nominations to the meeting.

#### 8. Adjourn Meeting

### Clam Lake PRD – Annual Meeting

**Rick Peterson** 

**Tim Hickey** 

**Anthony Snider** 

Jim Lang

**Tom Stoffel** 

**June 2022** 



### 2021 Meeting Material

#### 2021 Clam Lake PRD Communications



Our Website: <a href="mailto:clamlakeprd.com">clamlakeprd.com</a>

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 2021:

- 2021 Annual Meeting Minutes
- 2021 Annual Meeting Presentation

#### Treasurer Report - April 30, 2021 to April 30, 2022

#### CLAM LAKE PROTECTION AND REHABILITATION DISTRICT Financial Statement April 30, 2021 through April 30, 2022



<b>BALANCE FORWARD</b> :	Checkbook Balance	\$ 32,715.97	
	<b>Edward Jones Account</b>	<u>\$ 25,102.12</u>	\$57,818.09
INCOME:	Meenon Township	\$ 26,593.31	
	Siren Township	\$ 28,141.13	
	Go Fund Me	\$ 2,176.95	
		\$ 56,911.39	
EXPENSES:	Payroll	<b>\$ 19,437.62</b>	
	Insurance	\$ 3,995.17	
	<b>Maintenance and Repair</b>	\$ 17,695.30	
	Federal & State Taxes	\$ 5,633.92	
	Office	\$ 401.47	
	Miscellaneous	2,709.08	
	Bank charges	<u>\$ 75.00</u>	\$49,947.56
ACTUAL CASH ON HAND	Checking Account	\$ 49,862.71	
	<b>Edward Jones Account</b>	<u>\$ 15,105.51</u>	\$64,968.22

### Committee Reports

Aquatic Plant Management Plan – Tim Hickey

Lake Operations – Jim Lang

Lake Levels – Rick Peterson

Communications – Anthony Snider



2022-2026



#### **Table of Contents**

INTRODUCTION	13
PUBLIC PARTICIPATION AND STAKEHOLDER INPUT	15
OVERALL MANAGEMENT GOAL	16
WISCONSIN'S AQUATIC PLANT MANAGEMENT STRATEGY	17
SHALLOW LAKE MANAGEMENT CONSIDERATIONS	18 18
Shallow Lake Alternative States and Stabilizing Mechanisms Forward and Reverse Switches in the Clam Lakes	19
WATERSHED CHARACTERISTICS	21
LAND USE	21
Wetlands	22
Critical Habitat	24
Rare and Endangered Species and Habitat	25
Clam Lake Wildlife Area	26
Waterfowl	26
LAKE INFORMATION	27
PHYSICAL CHARACTERISTICS	27
Upper Clam Lake	28
Lower Clam Lake	28
WATER QUALITY	29
Water Clarity	30
Total Phosphorus and Chlorophyll-a	33
Trophic State Index	34
Temperature and Dissolved Oxygen	35
FISHERY	36
Bluegills and Carp Recruitement	38
Development of a Fisheries management Plan for the Clam Lakes	39
COARSE WOODY HABITAT (WOLTER, 2012)	40
SHORELANDS	41
Protecting Water Quality	41
Natural Shorelands Role in Preventing Aquatic Invasive Species	42
Threats To Shorelands	42
Shoreland Preservation and Restoration	42
SHORELINE INVENTORY	43
NEARSHORE AREA LAND USE	44
Burnett County Shoreline Incentives Program	46
AQUATIC PLANTS	47
AQUATIC PLANT SURVEYS - UPPER CLAM LAKE	49
Curly-leaf Pondweed Point-Intercept Survey	49
Curly-leaf Pondweed Bed Mapping Survey	51
Warm-water Full Point-intercept Macrophyte Survey – UPPer Clam	52
AQUATIC PLANT SURVEYS - LOWER CLAM LAKE	58
Curly-leaf Pondweed Point-intercept Survey	58
Curly-leaf Pondweed Bed Mapping Survey	59
Warm-water Full Point-intercept Macrophyte Survey – Lower Clam	60
WILD RICE	66



HISTORIC WILD RICE IN LOWER CLAM LAKE	66
HISTORIC WILD RICE IN UPPER CLAM LAKE	67
EFFORTS TO PROTECT, PRESERVE, AND ENHANCE REMAINING WILD RICE BEDS IN UPPER CLAM LAKE	69
Installation and Effectiveness of Carp Barriers	70
WILD RICE MANAGEMENT IMPLICATIONS	71
POSITIVE IMPACTS OF THE CARP BARRIERS MAINTAINED THROUGH 2013	71
COMPARISONS OF WILD RICE IN UPPER CLAM LAKE FROM 2009-2019	72
COMPARISONS OF WILD RICE IN LOWER CLAM LAKE FROM 2009-2019	75
QUATIC INVASIVE SPECIES	78
Non-native, Aquatic Invasive Plant Species	78
Curly-leaf Pondweed	78
Eurasian Watermilfoil	79
Purple Loosestrife	80
Reed Canary Grass	82
Non-native Aquatic Invasive Animal Species	83
Common Carp	83
Rusty Crayfish	85
Mystery Snalls	86
Zebra Mussels	86
AIS PREVENTION STRATEGY	88
NTEGRATED PEST MANAGEMENT	89
MANAGEMENT ALTERNATIVES	91
No Management	91
Hand-pulling/Manual Removal	92
Diver Assisted Suction Harvesting	93
Mechanical Removal	94
Bottom Barriers and Shading	97
Dredging	97
Drawdown	98
Biological Control	98
Chemical Control	99
HERBICIDE USE IN THE CLAM LAKES	100
MANAGEMENT DISCUSSION	102
AQUATIC PLANT MANAGEMENT IN THE CLAM LAKES	102
CLP Management in Lower Clam Lake	103
Native Aquatic Vegetation Management in Lower Clam Lake	104
CLP Management in Upper Clam Lake	106
Native Aquatic Vegetation Management in Upper Clam Lake	106
Harvesting of Curly-leaf Pondweed	109
CLP Turion Density Sampling	109
CLP Harvesting REsearch Project	110
Application of Aquatic Herbicides	110
AQUATIC PLANT SURVEYING	110
Curly-leaf Pondweed Bed Mapping Survey	110
Meandering Surveys	111
OTHER AIS MONITORING AND MANAGEMENT	111
COARSE WOODY HABITAT	112
LAM LAKES AQUATIC PLANT MANAGEMENT GOALS, OBJECTIVES, AND ACTIONS	113
MPLEMENTATION AND EVALUATION	114



#### Tables

Table 1: Land use in the Clam Lakes Watershed	21
Table 2: Lower and Upper Clam Lakes information	27
Table 3: General fishing regulations for Upper and Lower Clam Lake in 2016 (Roberts, 2017)	38
Table 4: Shoreline status categories: % coverage and miles of shoreline on the Clam Lakes. Not	e: The
Other category overlaps with the Disturbed and Natural categories (e.g. a shoreline segment may	y have
Lawn and Riprap).	
Table 5: Comparison of aquatic plant survey statistics from 2009 to 2019 on Upper Clam Lake	(Berg,
2019)	54
Table 6: Comparison of aquatic plant survey statistics from 2009 to 2019 on Lower Clam Lake	(Berg
2019)	62

#### Appendices

Appendix A: Clam Lakes APM Plan Goals, Objectives, and Actions

Appendix B: Clam Lakes APM Plan Implementation Matrix

Appendix C: Clam Lakes APM Plan Calendar of Actions

Appendix D: CLP and Nuisance Aquatic Plant Harvesting Plan

Appendix E: WDNR Surface Water Grants Program

Appendix F: Burnett County Shoreland Incentives Program

Appendix G: Wisconsin Wild Rice Conservation Rule - NR 19.09



Map 2 – Nuisance and Navigation Channels and Access to Open Water Lanes (Lower Clam Lake)



Figure 2: White dotted line = navigation channel parallel to shore 75-ft wide; Yellow dotted lines = Open water access lanes; Light green line = 500-ft from shore; Orange crosses = wild rice



Map 3 – Nuisance and Navigation Channels and Access to Open Water Lanes (Upper Clam Lake)



Figure 3: North end of Upper Clam Lake



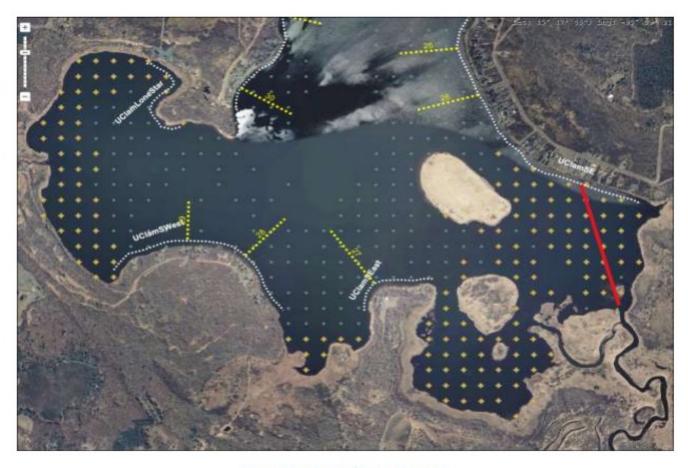


Figure 4: South end of Upper Clam Lake

White dotted line = Navigation channels parallel to shore 75-ft wide; Yellow dotted lines = Open Water Access Lanes; Orange crosses = wild rice; Red line = Clam River Access Lane 20-ft wide; Green dots = areas of the lake with native vegetation considered moderate to dense based on 2019 summer plant survey results.



2022-2026 Clam Lakes Harvesting Map

Map 1 - CLP Bed Harvesting and Nuisance Relief Navigation and Access Lanes

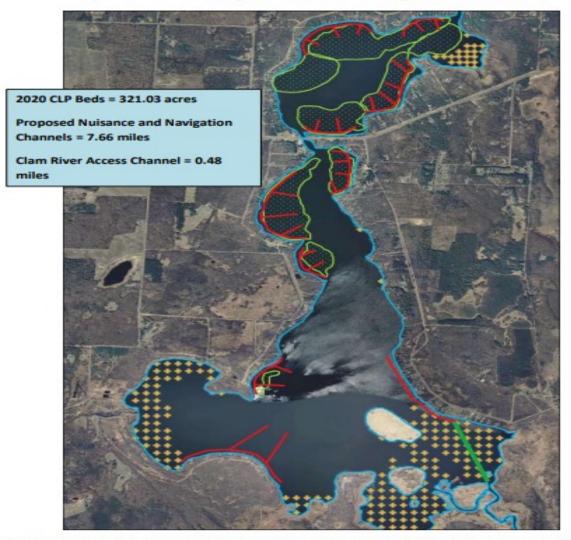
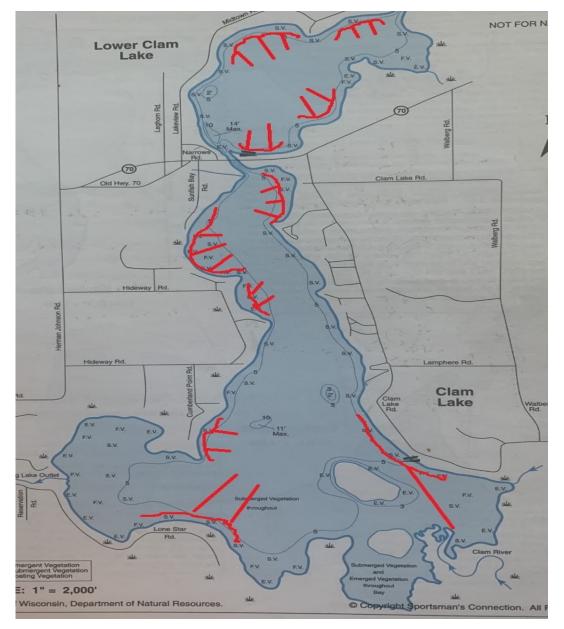


Figure 1: Light green polygons = 2021 CLP Beds; Red lines = Nuisance and Navigation Access Lanes; Green line = Clam
River Access Channel; Orange crosses = 2019 Wild Rice







#### **Harvesting Rules**

- 1. Limited to permitted areas unless approved in advanced
- 2. Cannot cut in less than 3 feet of water
- 3. Do not disturb to bottom of the lake
- 4. Curly Leaf Pond Weed
  - Cut before it goes to seed
  - Cut as much as possible to prevent it from taking over
- 5. Native weeds
  - Lanes for navigation only
  - 100 feet from shoreline to 150 feet from shoreline
  - Spokes from lanes to middle of lake
  - Three feet maximum or half the column of water
  - Do not cut wild rice or lily pads, unless absolutely necessary.



### Lake Operations Update

2022 Harvesting Status

DNR Permit Update

Loads Removed

#### **2022 Weed Harvesting Crew**

Jim Lang

John Hager

**Tim Hickey** 

Joe Wilkerson

**Gary Hermann** 

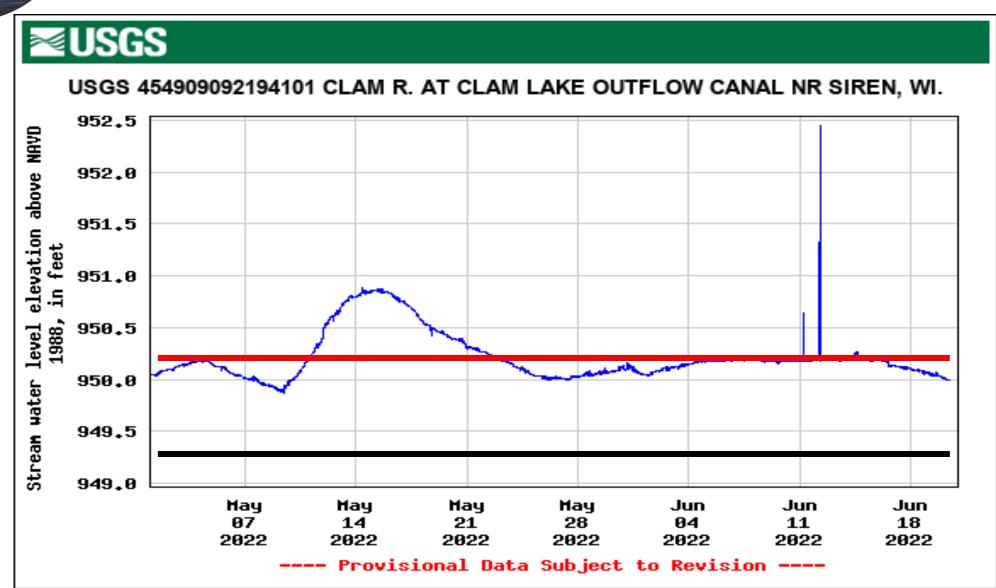


#### Lake Level Update

- Monitoring System: Water level gauges and cameras are located at: A) <u>Soderberg Road</u> B)
   Malone Road C) <u>Clam Dam Park</u>
- 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.
- Burnett County owns and operates the dam. If you would like further information on dam operations please contact Dave Ferris at 715-349-2109 ext. 2615
- Public website link: USGS Current Conditions for USGS 454909092194101 CLAM R. AT CLAM LAKE OUTFLOW CANAL NR SIREN, WI.



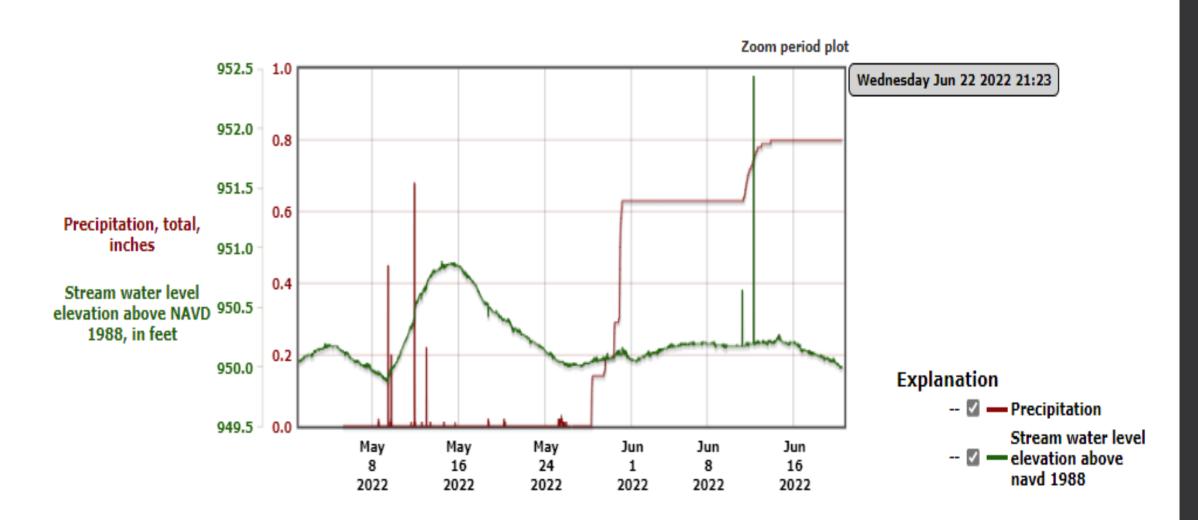
#### Lake Level Update – Monitoring





#### Lake Level Update – Monitoring

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



### Communications Update

#### Clam Lake PRD Website

- Homestead Technologies used to build and maintain website
- Knowledge of word processing and embedded links is sufficient for most updates
- ~2 hours per month during spring and summer

#### Social Media (Facebook, GoFundMe)

- Manage roles and settings
- Edit the pages and its apps
- Send messages on behalf of the page
- Respond to and delete comments and posts
- Approve and remove users
- ~1 hour per month

#### General Updates (events, lake updates, meeting minutes)

- clamlakeprd.com, Facebook and email used for updates
- Majority of time spent preparing annual meeting minutes

#### Maintain Clam Lake contact list

- Currently Xcel used to maintain contact list
- Majority of time spent updating after annual meeting





### Old Business Updates



- Weed harvesting equipment update Cutter maintenance, new elevator issues
- Clam Lake events Independence Day Pontoon Parade Saturday July 2<sup>nd</sup> 1:00 PM
- Boat launch updates Power loading ban, Highway 70 improvements
- 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
- Clam Lake activities committee This committee would be responsible for organization and coordination of lake type activities sponsored by the PRD.



### New Business Updates

- New Harvester Purchase
  - Total purchase price: ~\$190,000
  - Received DNR grant for \$94,614
  - 3 payment installments:
    - 1. \$63,075 (\$47,000 DNR, \$15,000 PRD) completed
    - 2. \$63,075 (\$50,000 loan, \$13,000 PRD)
    - 3. \$63,075 (\$47,000 DNR, \$15,000 PRD)



- Suggested in last years meeting
- Help offset the growing costs of the cutting operations
- Target of \$20,000 current donations total = \$2250.00





#### **Board Seat Election**

- One position open
  - Anthony Snider's term has expired and he is not seeking reelection.





## **Appendix**



#### 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) <u>Soderberg Road</u> B) <u>Malone Road</u>
   C) <u>Clam Dam Park</u>
- 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 – County Message

#### How is Clam Dam Operated...What is required?

We are 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.