

RICE LAKE BARRON COUNTY

2022 MANAGEMENT SUMMARY REPORT WBIC: 2103900

Prepared by: Dave Blumer, Lake Educator

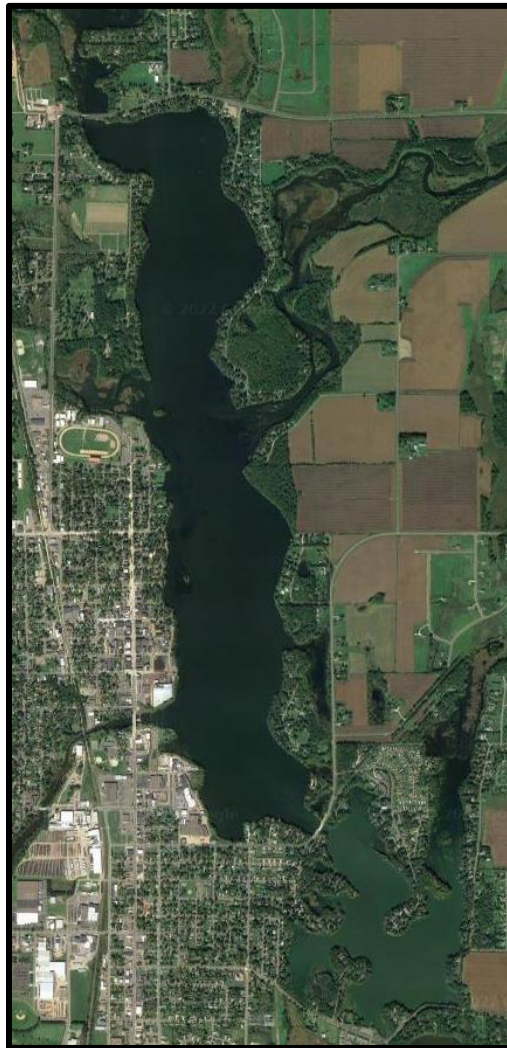


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INTRODUCTION

This report discusses lake management activities completed by the Rice Lake Protection and Rehabilitation District (RLPRD) and Lake Education and Planning Services (LEAPS) throughout 2022. The following actions were completed by LEAPS to assist the RLPRD in aquatic plant management and lake stewardship education.

- WDNR 2022-23 AIS small-scale population control (ACEI) grant
- RLPRD Board and Annual Meetings
- Lake District Coordinator
- Management of hybrid watermilfoil (HWM)
- Management of curly-leaf pondweed (CLP)
- Native aquatic plant harvesting
- Aquatic plant survey work
- AIS monitoring and purple loosestrife removal
- Water quality monitoring
- 2023 Preliminary CLP and HWM management planning
- Watercraft inspection (Clean Boats Clean Waters, CBCW)
- Recreational Boating Facilities (RBF) grant for a new harvester

Each bullet will be discussed more in the following sections.

2022-23 WDNR ACEI GRANT

In late February 2022, the RLPRD was awarded a two year Aquatic Invasive Species (AIS) small-scale, population control grant project to chemically treat HWM in Clearwater Bay and the South Basin using the herbicide ProcellaCOR. The grant (ACEI 28122) officially began on March 15, 2022 and runs through December 31, 2023. The main activities in the grant are related to the management of HWM. This includes management planning and implementation, aquatic plant survey work, application of ProcellaCOR in 2022, and herbicide concentration testing.

Professional Services Agreements were prepared for Year 1 of the grant (March 2022 through February 2023) and Year 2 of the grant (March 2023 through December 2023).

2022 RLPRD BOARD MEETINGS AND ANNUAL MEETING

RLPRD board meetings were held in each month between March and November 2022. There was no December 2022 Board Meeting. The RLPRD Annual Meeting was held in October 2022. LEAPS attended every meeting except August. During each meeting LEAPS would give an update on grants, HWM and CLP management planning and implementation, and aquatic plant survey results. During the Annual Meeting, LEAPS prepared a PowerPoint presentation and delivered it to the participants of the meeting.

RLPRD LAKE COORDINATOR

In the summer of 2021, the RLPRD hired a nearly full-time Lake District Coordinator. The Lake District Coordinator position was continued through the entirety of 2022. The LD Coordinators responsibilities include public relations, AIS monitoring, education, water quality monitoring, and some AIS removal. The following is a list of activities that the LD Coordinator participated in in 2022 – many of these activities were AIS focused (submitted by Christina Solie – LD Coordinator).

- Ice fishing and winter plankton netting

- CBCW seminar in Spooner
- Took “Introduction to Lakes” course through University of Michigan
- Took a course on web design and was part of updating the district’s website
- Planned, marketed, and participated in an Earth Day clean-up event in collaboration with Main Street Assoc. and RL Chamber
- Tested chloride levels in the lake to monitor winter road salt impacts
- Presented to the Blue Hills Universal Unitarianism Fellowship
- Spoke with numerous lake homeowners about how they can restore their shorelines to aid in positive lake health
- Created a Fall and Spring Newsletter
- Created a brochure explaining the reimbursement program offered by the Lake District
- Distributed Lake District brochures to area businesses (Chamber, bait shops, powersports, etc.)
- Attended WI Lakes and Rivers Week in Stevens Point
- Presented to Rice Lake Men’s Club
- Kept website and social media up to date with current and relevant facts and events
- Performed water quality: Secchi disk, phosphorus, chlorophyll
- Monitored lake for AIS
- Obtained funding to restore the shoreline at the Lumbering Hall of Fame (project is complete)
- Assessed lakeshore homeowners’ properties to see what they can do on their property to stop erosion, runoff, etc.
- Reached out to new shoreline restoration consultants to help with reimbursement program
- Planted plants on lakeshore homeowner properties to help with lake health
- Recruited volunteers and helped to clean up the Beach Walk and Narrows Park
- Partook in CLP and HWM surveys with LEAPS
- Participated in several meetings regarding beef producers and lake health
- Attended the NW WI Lakes Conference
- Worked with Aquarius to get drone footage of Rice Lake
- Had a booth at the Barron County Fair
- Taught high schoolers about AIS
- Presented to Rotary Club
- Was trained on and promoted the Healthy Lake Survey Tool
- Helped update informational signs around the lake
- Currently working on installing a life jacket donation station
- Mentored high school students interested in science careers
- Helped plan, market, and presented at the Lake District’s Annual Meeting
- Sent in CBCW grant
- Attended a “wetland to cropland” online seminar and other webinars/zoom conferences
- Participated in monthly Lake District board meetings
- Read articles to stay updated on lake facts and events
- Attended the Sculpture Ribbon Cutting Ceremony
- Helped the Chamber of Commerce with their new raingarden mural project

2022 HYBRID WATERMILFOIL MANAGEMENT

The main objective included in the ACEI grant that was awarded was management of HWM in Clearwater Bay and the South Basin.

Based on EWM surveys completed by LEAPS and the RLPRD in the late summer and fall of 2021 (Figures 1&2), a chemical treatment plan was put together for 2022. The treatment plan included seven beds of EWM totaling 5.81

acres (Figure 3). A WDNR chemical application permit was applied for on April 14, 2022 for both the HWM treatment and the CLP treatment (see future section). It was approved by the WDNR on May 5, 2022.

After a pre-treatment readiness and point-intercept survey, the final chemical treatment proposal was reduced to only five beds totaling 4.45 acres (Figure 4). The herbicide to be used was ProcellaCOR at 3 to 4 pdus per acre-foot (Table 1). According to product documentation by SePRO, the company that manufactures and distributes ProcellaCOR, application rates are generally <0.01 part per million (ppm) or milligrams per liter (mg/L) instead of the 1-4ppm required for more commonly used 2,4D-based herbicides. At 4pdus/acre-foot, the expected concentration to be applied to the treated areas is around 0.008 ppm or 7.7 ppb.

Northern Aquatic Services out of Dresser, WI completed the 2022 chemical treatment on June 7, 2022. This was the first time that ProcellaCOR has been used in Rice Lake. Support for the ProcellaCOR application included pre and post-chemical treatment point-intercept (PI) aquatic plant survey work and herbicide concentration testing.

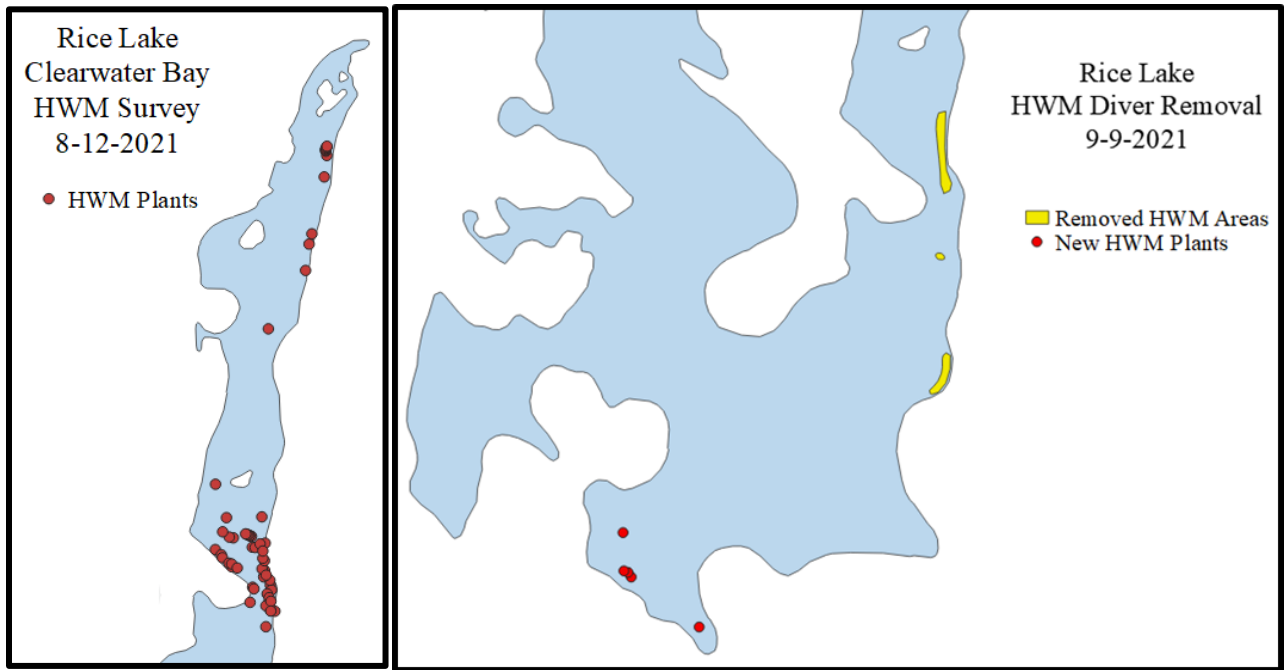


Figure 1: 8-12-2021 LEAPS HWM survey (left), and 9-9-21 Lutra Biological survey (right)

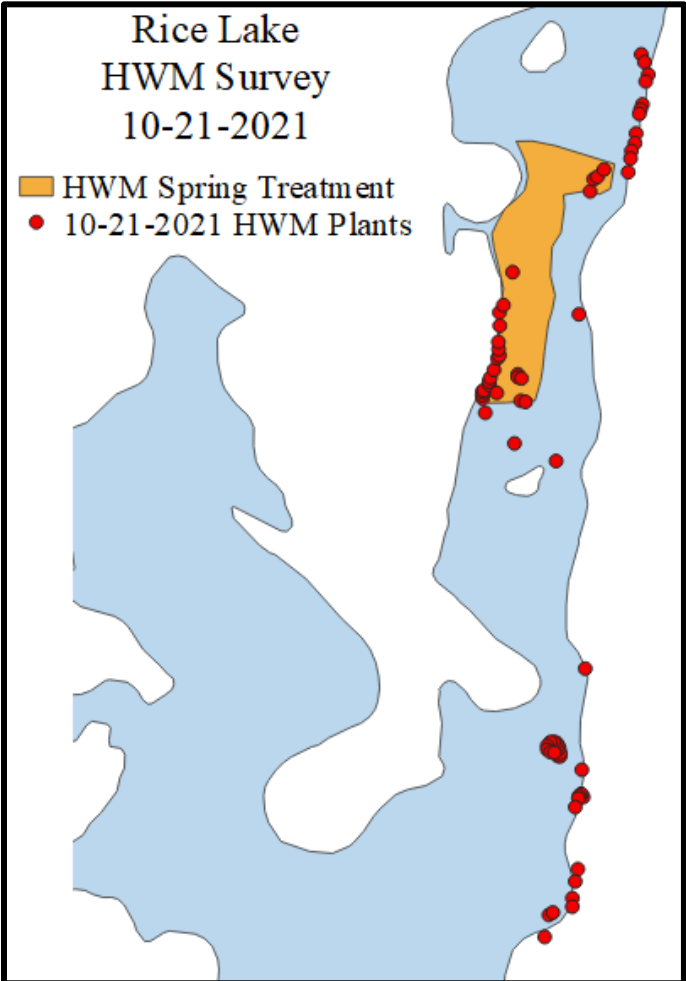


Figure 2: 10-21-2021 LEAPS Clearwater Bay and South Basin HWM survey

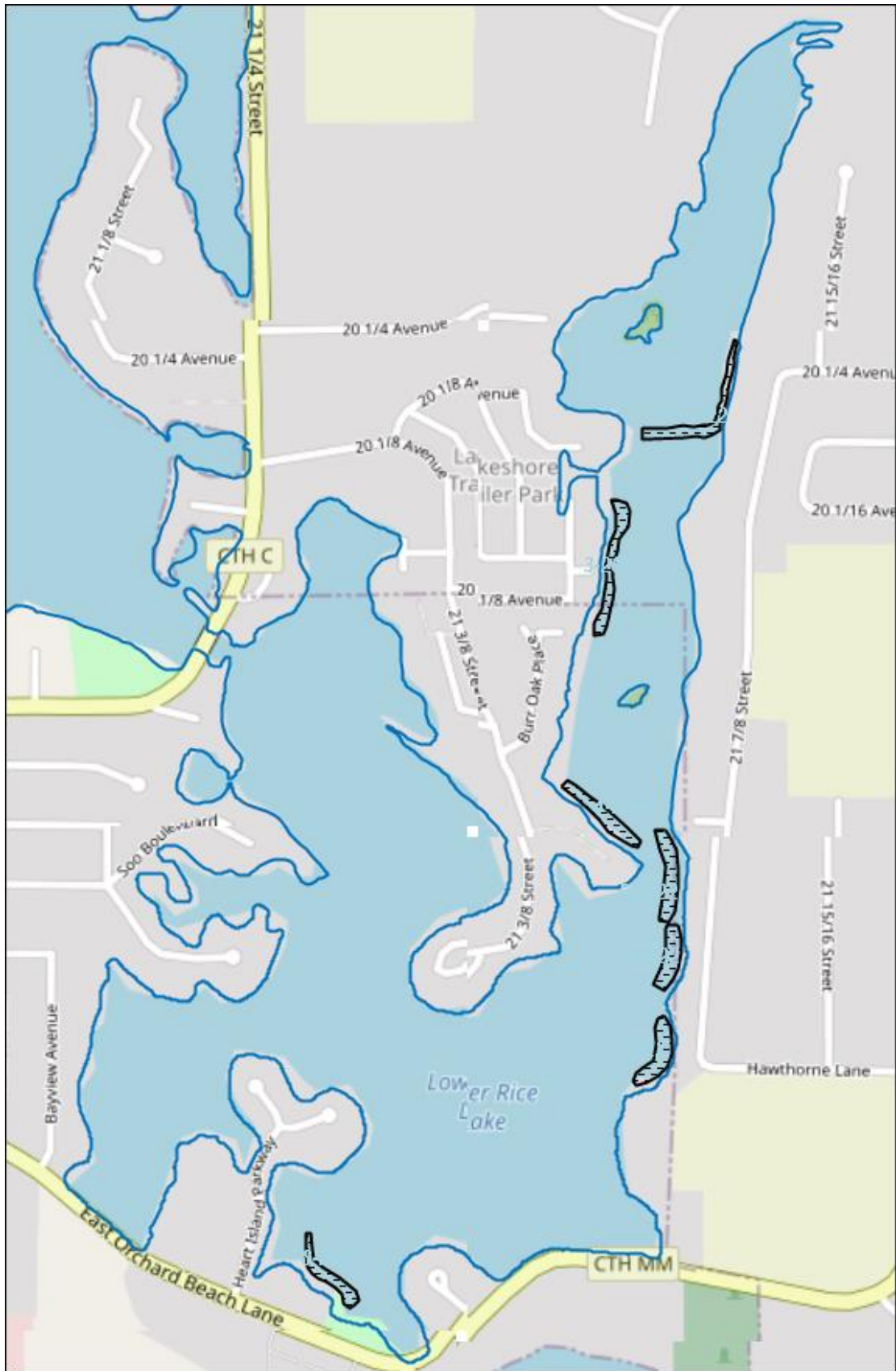


Figure 3: 2022 Preliminary HWM chemical treatment areas (7 beds = 5.81 acres)

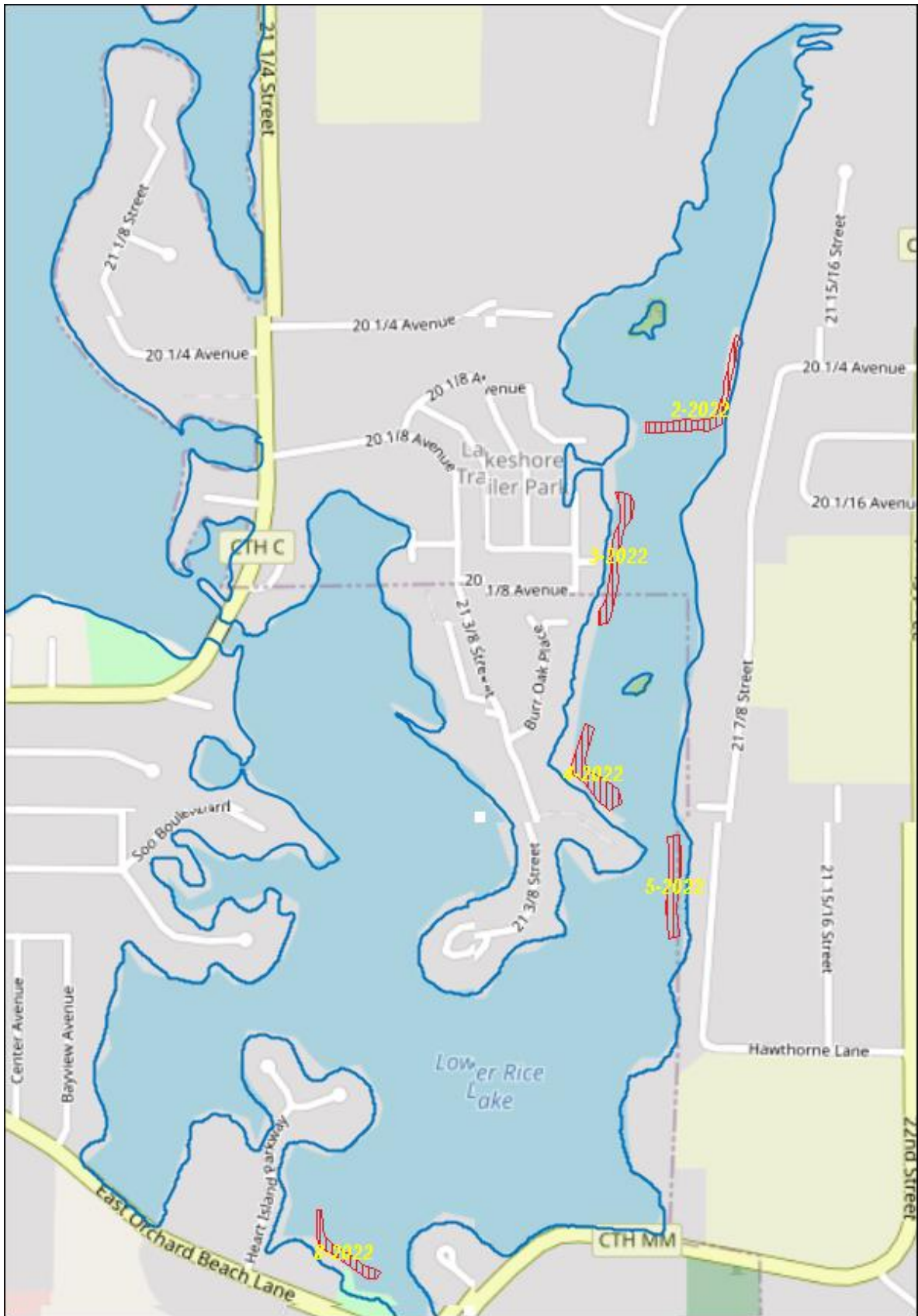


Figure 4: 2022 Final HWM chemical treatment proposal (5 beds = 4.45 acres)

Table 1: Final 2022 HWM chemical treatment details

2022 Rice Lake, Barron County Final Spring HWM ProcellaCOR Chemical Treatment Proposal 5/27/2022							
New Name	Acres	Mean Depth (feet)	Acre-feet	Treatment PDU/acft	PDU Application	Pre/Post Treatment Points	
Bed 1-2022	0.85*	3.0	NA	NA	NA	9	Eliminated
Bed 2-2022	0.93	3.00	2.79	3.00	8.37	6	Modified
Bed 3-2022	0.96	3.00	2.88	3.00	8.64	7	Modified
Bed 4-2022	1.05	4.00	4.20	3.00	12.60	8	Modified
Bed 5-2022	0.86	7.00	6.02	4.00	24.08	9	Modified
Bed 6-2022	0.72*	8.00	NA	NA	NA	7	Eliminated
Bed 7-2022	0.81*	8.00	NA	NA	NA	8	Eliminated
Bed 8-2022	0.65	4.00	2.60	3.00	7.80	7	Modified
	4.45			3.20	61.49	61	
						39	
ProcellaCOR	PDU = 3.2 oz		fl. Ounces	gallons		100 pts total	
Scenario 1	# of PDU = 61.49		196.768	1.5			
	Cost/PDU = \$70.00						
	Total Cost = \$4,304.30						
2022 Rice Lake Herbicide Concentration Testing							
Site	1 HAT	4 HAT	8 HAT	24 HAT	48 HAT		
CB-2022	1	1	1	1	1		
SB-Outlet-2022	1	1	1	1	1		
SB-DeepHole-2022	1	1	1	1	1		
	3	3	3	3	3		
Blanks	2	TOTAL = 17 samples					

2022 PROCELLACOR CONCENTRATION TESTING

In support of the 2022 ProcellaCOR chemical treatment to control HWM in Clearwater Bay and the South Basin, herbicide concentration testing was completed at 3 sites (Table 2, Figure 6). Water samples were collected by the LD Coordinator and LEAPS. Water samples were sent to EPL Bio Analytical Services for analysis. Results were sent to LEAPS. Of the three sites monitored for herbicide concentration, only the SB-Outlet-2022 site was actually directly in a treated area (Bed 5). The applied concentration of herbicide in Bed 5 was supposed to be 4pdus/acre-foot or 7.72 parts per billion (ppb).

Table 2: 2022 ProcellaCOR concentration testing details for Rice Lake

2022 Rice Lake Herbicide Concentration Testing					
Site	1 HAT	4 HAT	8 HAT	24 HAT	48 HAT
CB-2022	1	1	1	1	1
SB-Outlet-2022	1	1	1	1	1
SB-DeepHole-2022	1	1	1	1	1
	3	3	3	3	3
Blanks	2	TOTAL = 17 samples			

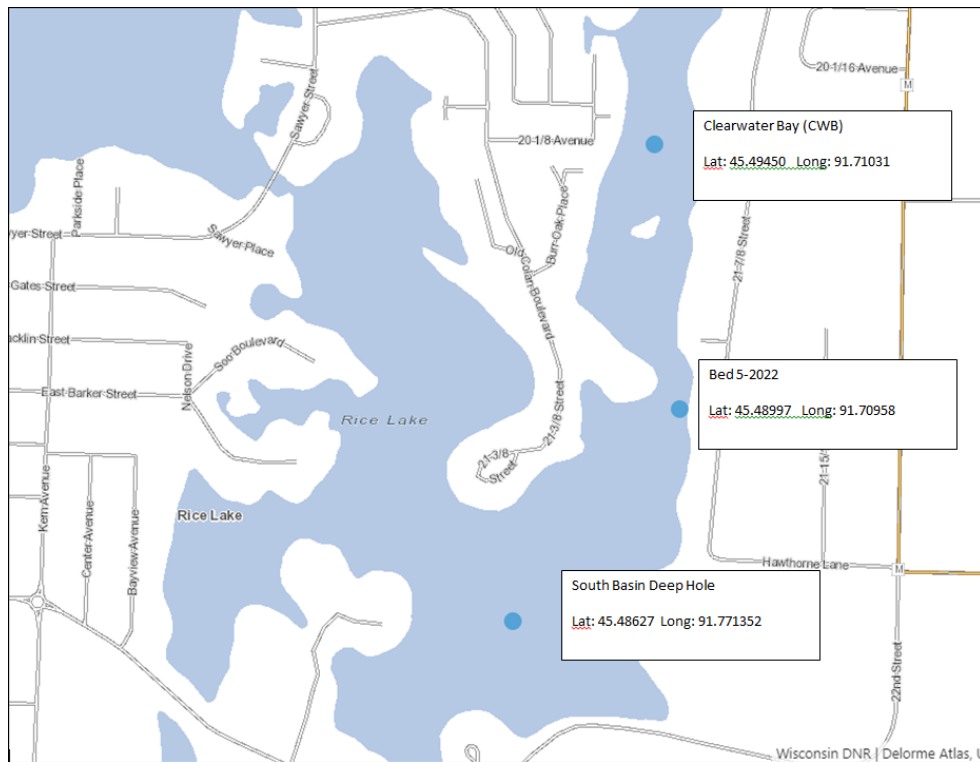


Figure 5: 2022 ProcellaCOR herbicide concentration testing sites – Rice Lake

Figure 6 reflects what happened with the herbicide once it was applied. The Bed 5 site was the only sampling site directly within a treated area. In Bed 5, at 1 hour after treatment (HAT), the concentration of ProcellaCOR was measured at 0.0806 ppm or 80.6 ppb, far exceeding the applied rate. By 4 HAT, the concentration had increased to 355 ppb. At 8 HAT it was down a third to 138 ppb. At 24 HAT it was at 99.2 ppb, and at 48 HAT 55.8 ppb. The HWM in this bed should have been effectively killed by this treatment.

In Clearwater Bay, the sampling site was not in a directly treated area. Instead it was in the center of the bay. If the entire volume of the area of Clearwater Bay that was adjacent to actual treatment sites had been treated with the amount of ProcellaCOR used, the expected whole bay concentration would have been around 0.02 ppb. However, water samples collected at the Clearwater Bay site indicated ProcellaCOR concentrations from a low of “zero” ppb after 48 hours to as much as 324 ppb at 8 HAT. This level of herbicide should have been enough to kill nearly all of the HWM present in that area of Clearwater Bay at that time.

Even in the South Basin, the concentration of ProcellaCOR was measureable; however, it took until 4 HAT for it to be recorded. At that time, the concentration was measured at 452 ppb which seems very high. At all other measured times; the concentration was well below 100 ppb through the 48 hours that were measured.

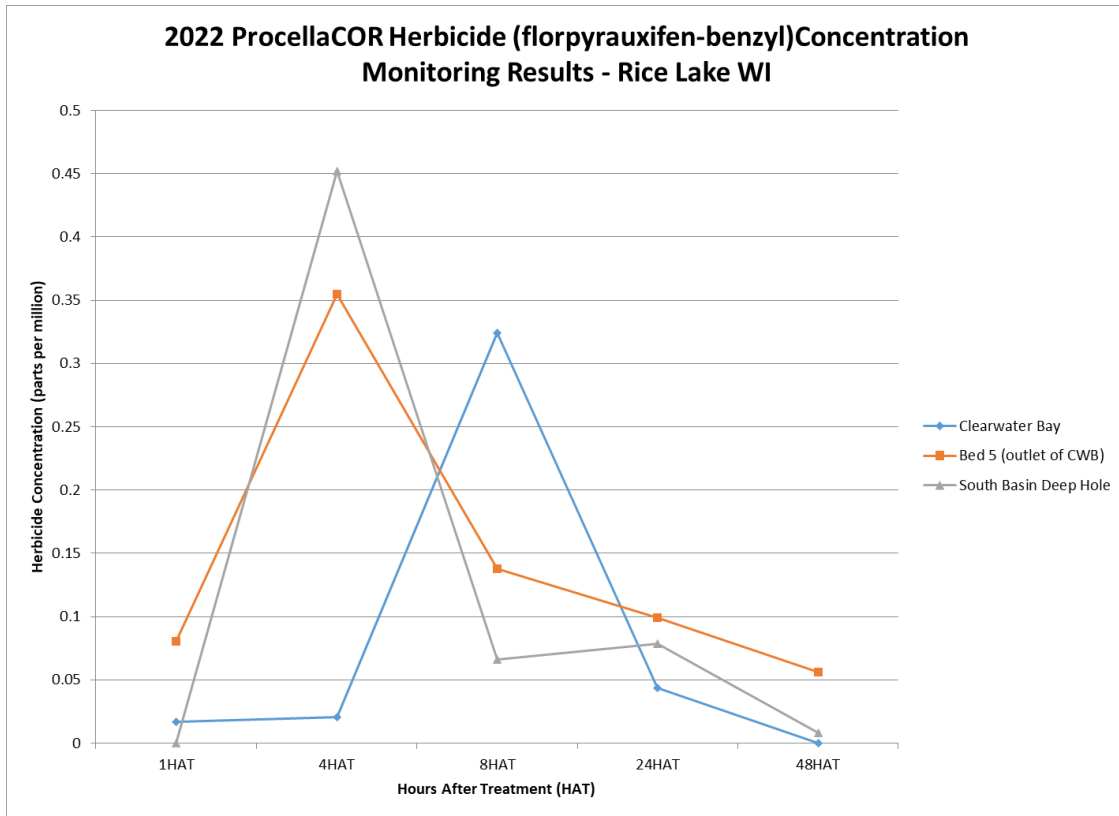


Figure 6: ProcellaCOR herbicide concentration sampling results

2022 PRE-CHEMICAL TREATMENT PI, AQUATIC PLANT SURVEY WORK

In support of the chemical treatment of HWM in Clearwater Bay and the South Basin using ProcellaCOR, a pre and post-treatment point-intercept survey grid was established. The grid included 100 points within proposed treatment areas and throughout Clearwater Bay and parts of the South Basin (Figure 7). On May 13-14, LEAPS completed a pre-treatment survey of these points. During the survey, HWM was documented at XX points. Also, XX different native aquatic plant species were identified. The density of HWM and each species identified was documented, as was the depth at the each point.

The 100 points were again surveyed between Sept 1 and Sept 28 by LEAPS to begin the comparison process from before and after chemical treatment using ProcellaCOR. During the fall survey, HWM was only identified at 19 of the 100 sites. Of these, it was only on the rake at four sites, the rest were visuals. Sixteen different native aquatic plant species were identified with 91 of the 100 points having aquatic vegetation at them.

Another survey of the 100 points will be completed in the early summer of 2023.

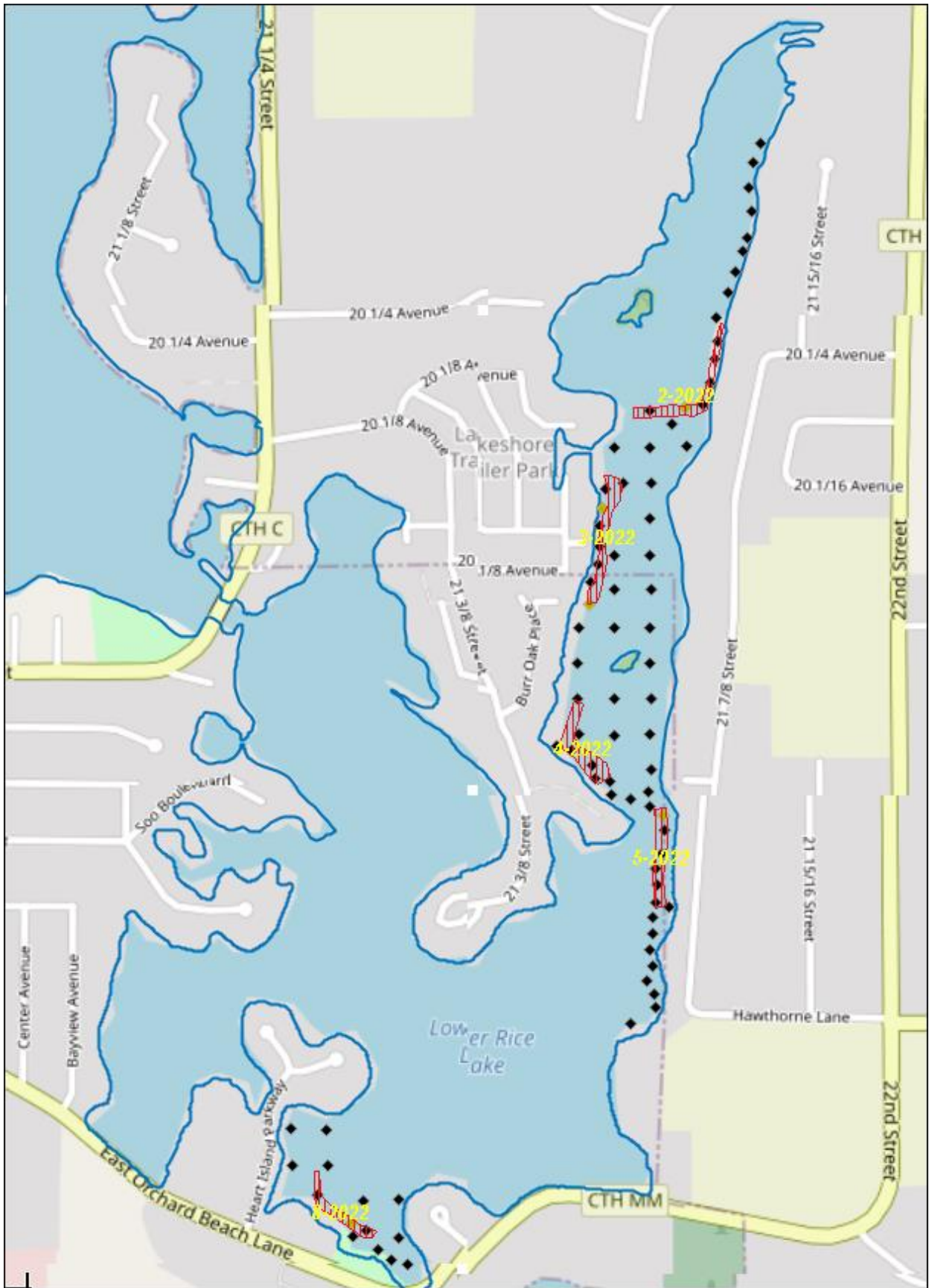


Figure 7: 2022 and 2023 pre and post-chemical treatment PI aquatic plant survey points (100 total)

2022 CURLY-LEAF PONDWEED (CLP) MANAGEMENT

The RLPRD completed CLP management in 2022. Based on 2021 mapping results and discussion with the operators of the RLPRD aquatic plant harvesters, it was decided to chemically treat an area of the lake along the east shore where dense growth CLP requires a lot of extra harvesting time. A 2022 spring treatment was proposed that covered two areas totaling 9.88 acres were planned (Table 3, Figure 8).

Table 3: 2022 CLP chemical treatment proposal - details

2022 Preliminary Curly-Leaf Pondweed Chemical Treatment - East Shore - Endothall (5-17-2022 LEAPS)					
Treatment Area Characteristics			Aquathol® K (liquid)		
Bed	Acreage	Mean Depth (ft)	Acre-Feet	Target A.I. (ppm)	Total Treatment (gallons)
East Shore CLP-1-22	3.25	7.0	22.75	1.5	22.75
East Shore CLP-2-22	6.63	7.0	46.41	1.5	46.41
TOTAL	9.88		69.16		69.16
					\$135/gallon x 69.16 gallons = \$9,340.65

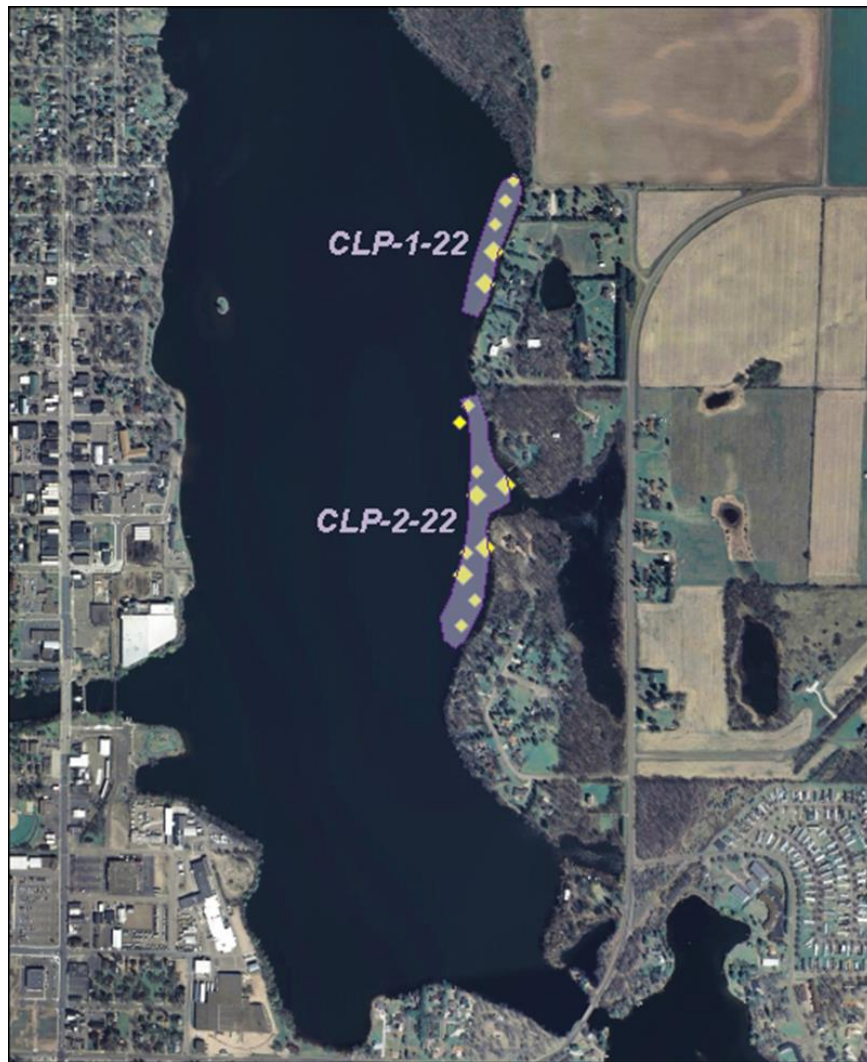


Figure 8: 2022 CLP chemical treatment proposal - map

A chemical application permit was applied for on April 14, 2022 and was approved on May 5, 2022. Northern Aquatic Services completed the treatment on May 24, 2022, applying Aquathol K, an endothall-based, contact herbicide at 1.5ppm.

In addition to the chemical treatment along the east shore of the lake, the RLPRD also completed mechanical harvesting of CLP in other areas of the lake. A mechanical harvesting permit was submitted to the WDNR on April 14, 2022 and was approved by the WDNR on May 6, 2022. Harvesting of CLP is generally done lake-wide wherever abundant CLP is located. The permit however included 20 areas totaling 112 acres (Table 4, Figure 9).

Table 4: 2022 CLP harvesting details

2022 Expected CLP Harvesting Plan March 30, 2022			
<i>Color</i>	<i>Year</i>	<i># of Beds</i>	<i>Total Acres</i>
White/gray	2022	20	112

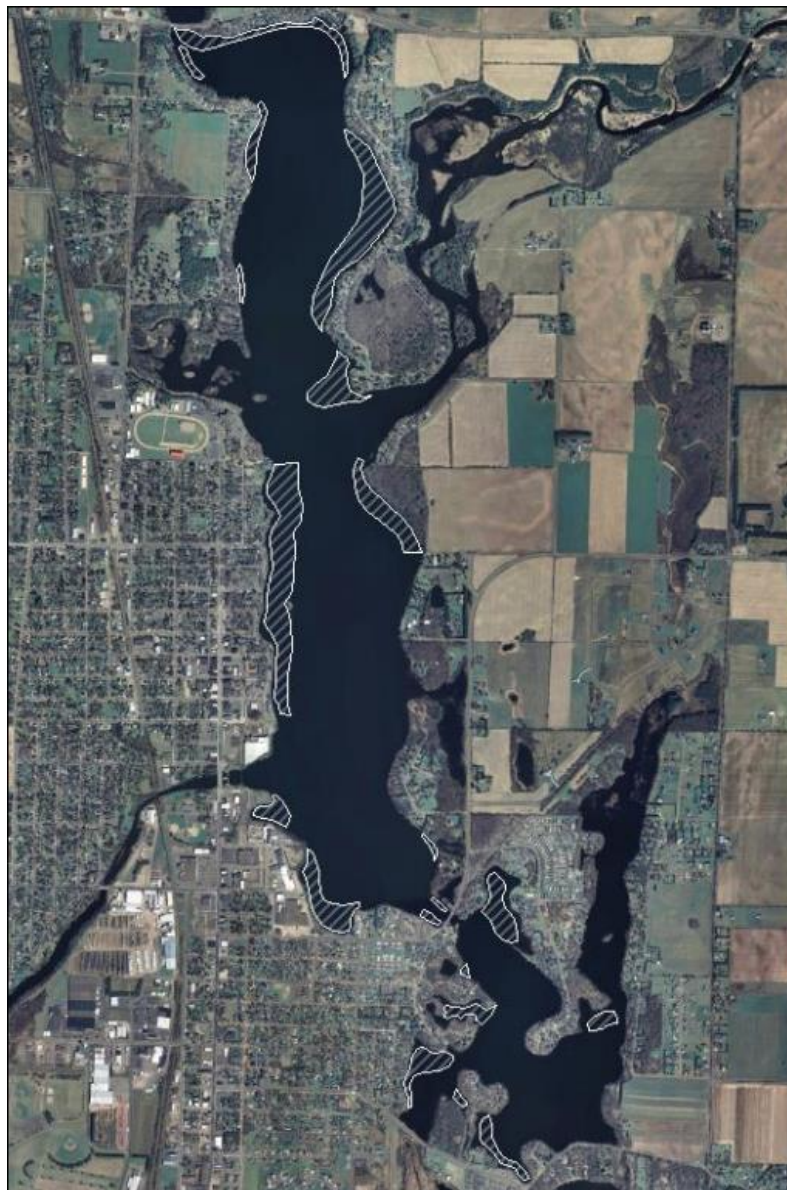


Figure 9: 2022 CLP harvesting map

During the 2022 season, XX tons of CLP was removed from Rice Lake beginning on May 1, 2022 and going through July 4, 2022.

2022 NATIVE AQUATIC PLANT HARVESTING

In addition to harvesting CLP from the lake, and additional 66 acres of navigation lanes and channels are kept open through harvesting during the summer. The WDNR harvesting permit that was prepared for CLP harvesting also included the navigation lanes in Table 5 and Figure 10.

Table 5: 2022 Rice Lake CLP and Navigation Lane Harvesting

2022 Rice Lake, Barron County Summer Navigation Lanes Harvesting Program March 30, 2022			
<i>Color</i>	<i>Width (ft)</i>	<i>Miles</i>	<i>Acres</i>
Yellow	20	2.3	5.58
Green	40	0.36	1.75
Red	60	3.49	25.38
Orange	80	2.51	24.35
Blue	160	0.45	8.73
		9.11	65.79



Figure 10: 2022 Rice Lake navigation lanes

During the 2022 season, XX tons of aquatic vegetation was removed from the navigation and access lanes in Rice Lake.

MOON LAKE

In addition to opening up navigation lanes and access corridors on Rice Lake, the one of the LD harvesters was brought over to Moon Lake to help them clear navigation and access lanes and open water lake use areas. In total, nearly 260 tons of native aquatic vegetation was removed from Moon Lake in 2022 following a permit application prepared by the Moon Lake Association. This is the second year that aquatic plant harvesting has been completed on Moon Lake. In 2021, 390 tons of aquatic vegetation was removed. A majority of this vegetation was watershield (*Brasenia schreberi*).

2022 AQUATIC PLANT SURVEY WORK

Several aquatic plant surveys were completed in Rice Lake in 2022.

CLP

The first was a CLP treatment readiness survey on May 13, 2022 in support of the proposed chemical treatment of CLP along the east shore of the lake. That survey showed that CLP was detectable, leading to a 100-pt PI survey within the proposed treatment areas completed on May 17, 2022. During the 100-pt PI survey, 23 of the 100 points had CLP on the rake averaging at least a 2 (moderate infestation) for rakehead density (Figure 11). Based on these results, the proposed chemical treatment of CLP on the east shore of the lake was completed.

For the first time, CLP bed mapping on Rice Lake was completed by RLPRD volunteers and employees. In mid-June, 2022 CLP was mapped in the entire lake. Surveyors mapped 11 areas totaling 61.6 acres of CLP (Figure 12). The total acreage of CLP in 2022 was <50% of what was mapped in 2021 (134.5 acres) reflective of the changes in growing conditions that can affect the amount of CLP growth in any given year. Interestingly, there is no CLP along Lakeshore Dr. on the west shore, or along the east shore. Both of these areas typically have a lot of CLP. Lakeshore Dr. was chemically treated in 2021. The east shore was chemically treated in 2022. The mapped CLP information will be used to inform CLP management in 2023.

HWM

The first HWM survey was of 100 points prior to the proposed chemical treatment in Clearwater Bay and the South Basin. This survey has already been discussed in a previous section.

A 2022 fall HWM survey and bed mapping was completed by LEAPS in late September. Nearly 20 miles of transects were covered over several trips to the lake. During the surveys, more than 150 points were taken where HWM, or at least a suspect HWM plant, was identified (Figure 13 left). Suspect milfoil plants were found in a couple of new areas of the lake that deserve follow-up in the spring of 2023. When the September 2022 survey results are compared to the 2022 spring herbicide treatment areas, it appears as if the treatment areas remained relatively clear of HWM. However, in areas outside of the treatment locations, like the entirety of the large open center basin in Clearwater Bay, individual HWM plants were abundant, suggesting that the ProcellaCOR, at the concentration it was applied, did not take out much additional HWM (Figure 13 right).



Figure 11: 2022 CLP pre-treatment PI survey points: original 100-pts (left); points with CLP on May 17, 2022 (right)

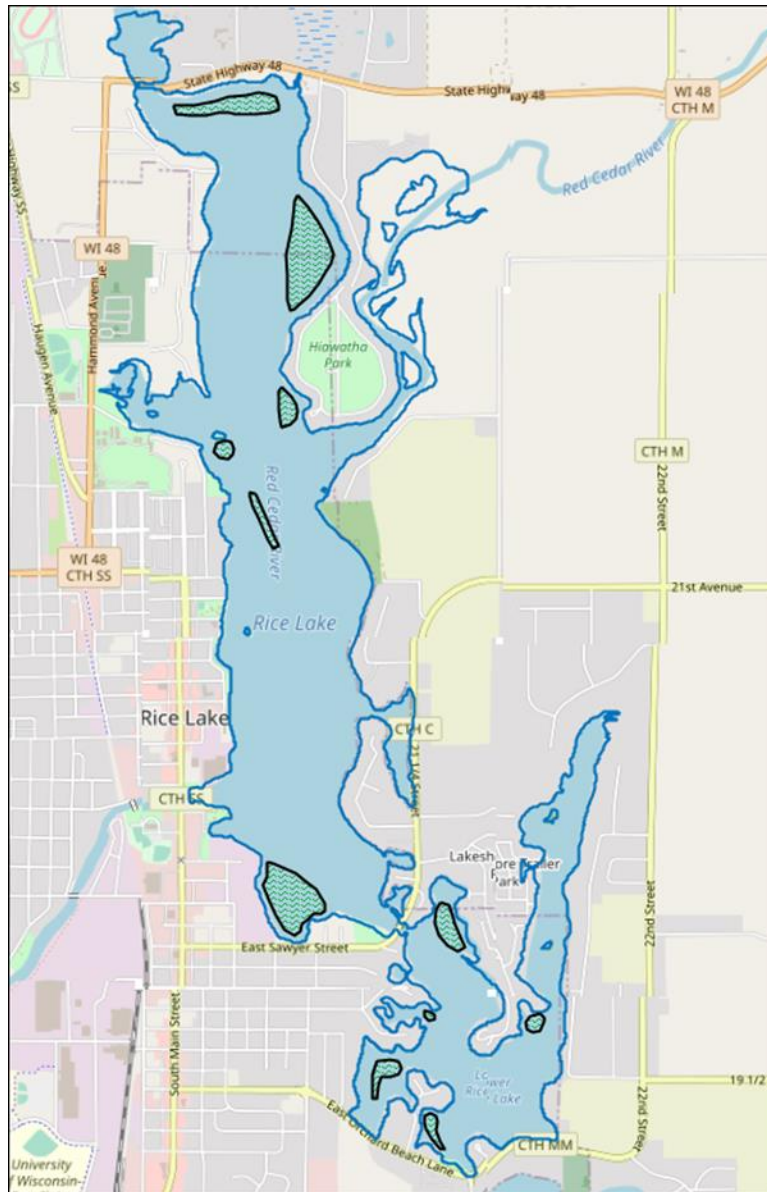


Figure 12: June 2022 CLP bed mapping on Rice Lake

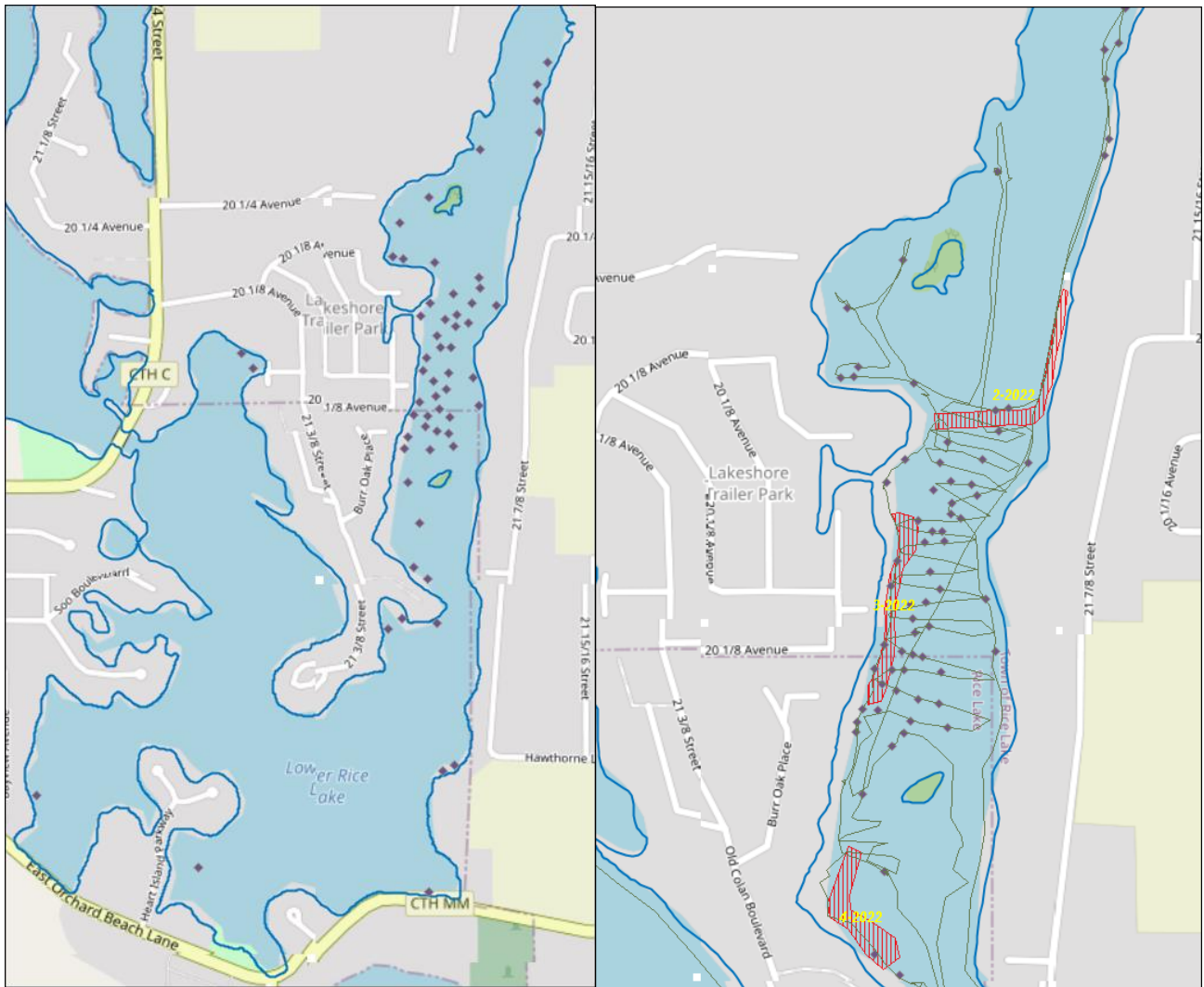


Figure 13: September 2022 HWM meandering survey results (left). Sept. survey results compared to 2022 treatment areas in CWB

2022 AIS MONITORING AND PURPLE LOOSESTRIPE REMOVAL

One of the responsibilities of the LD Coordinator in 2022 was to complete a series of AIS monitoring trips around the lake during the season looking for AIS that are either not known to be in Rice Lake already, or those that are present but at very low levels. The LD Coordinator logged XX trips around the lake in 2022 looking for AIS.

One of the AIS that is monitored for is purple loosestrife. In 2021, several purple loosestrife plants were removed from the southwest corner of the South Basin adjacent to Orchard Beach Lane in August. Again in 2022, several plants were removed from this area. The plants were in the ditch area between the roadway and the open water of the lake. LEAPS pulled these plants by the roots and disposed of them.

2022 WATER QUALITY

Two sites in Rice Lake, the Central Basin (Station ID: 033163) and South Basin (Station ID: 033181) are regularly monitored for several water quality parameters.

The Central Basin was sampled 13 different days during the 2022 season. Parameters sampled included: water clarity, temperature, dissolved oxygen, total phosphorus, and chlorophyll.

The average summer (July-Aug) Secchi disk reading for the Central Basin was 3.25 feet. This value is a little lower than historic readings for the Central Basin, but consistent with values from 2021 (Figure 14). Typically the summer water was reported as clear and green. This suggests that the Secchi depth may be mostly impacted by algae. Algal blooms are generally considered to decrease the aesthetic appeal of a lake because people prefer clearer water to swim in and look at. Algae are always present in a balanced lake ecosystem. They are the photosynthetic basis of the food web. Algae are eaten by zooplankton, which are in turn eaten by fish.



Figure 14: Historic Secchi disk readings of water clarity at the Central Basin in Rice Lake

Chemistry data, including total phosphorus and chlorophyll-a, was collected at the Central Basin in 2022. Phosphorus is the nutrient that in excess promotes heavy plant (including algae) in the lake. Chlorophyll-a is a measurement used to determine the amount of algae in the water. The average summer chlorophyll was 60.6µg/l, much higher than it was during the summer of 2021. The summer total phosphorus average was 59.7µg/l, again higher than values from 2021. Impoundments like Rice Lake that have more than 30µg/l of total phosphorus may experience noticeable algae blooms.

The overall Trophic State Index (based on chlorophyll) for Rice Lake at the Central Basin was 66 (Figure . This TSI suggests that water quality in the Central Basin was eutrophic, or nutrient rich. This TSI usually suggests blue-green algae become dominant and algal scums are possible, extensive plant overgrowth problems possible. These conditions accurately describe the Central Basin of Rice Lake in 2022.

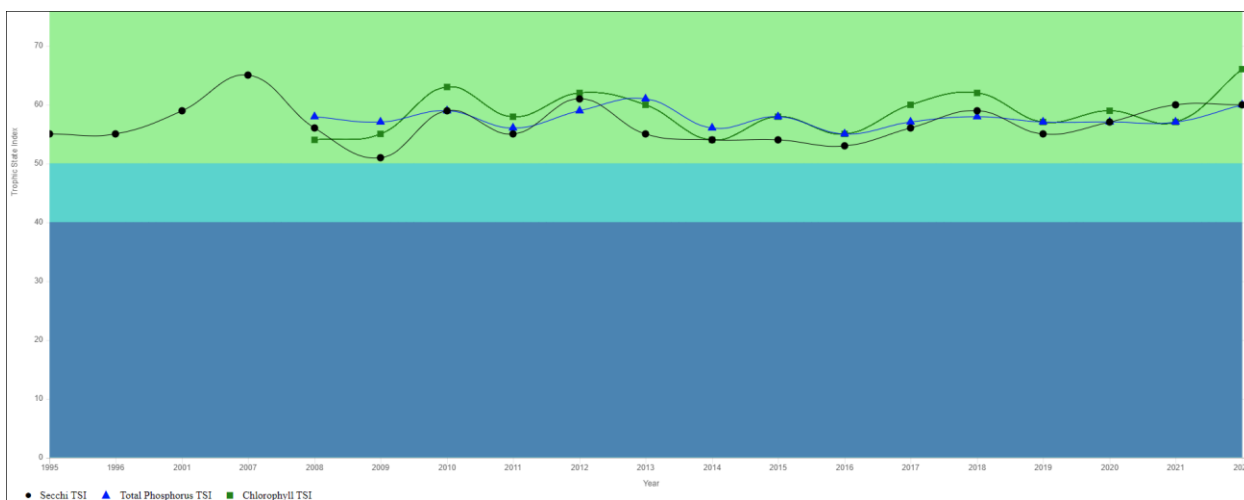


Figure 15: Historical TSI values for water clarity, total phosphorus, and chlorophyll-a at the Central Basin in Rice Lake

The South Basin of Rice Lake was sampled 11 different days during the 2022 season. Parameters sampled included: : water clarity, temperature, dissolved oxygen, total phosphorus, and chlorophyll.

The average summer (July-Aug) Secchi disk reading for the South Basin was 5.06 feet. This is consistent with historic water clarity in the South Basin of Rice Lake (Figure 16). Typically the summer water was reported as clear and green.

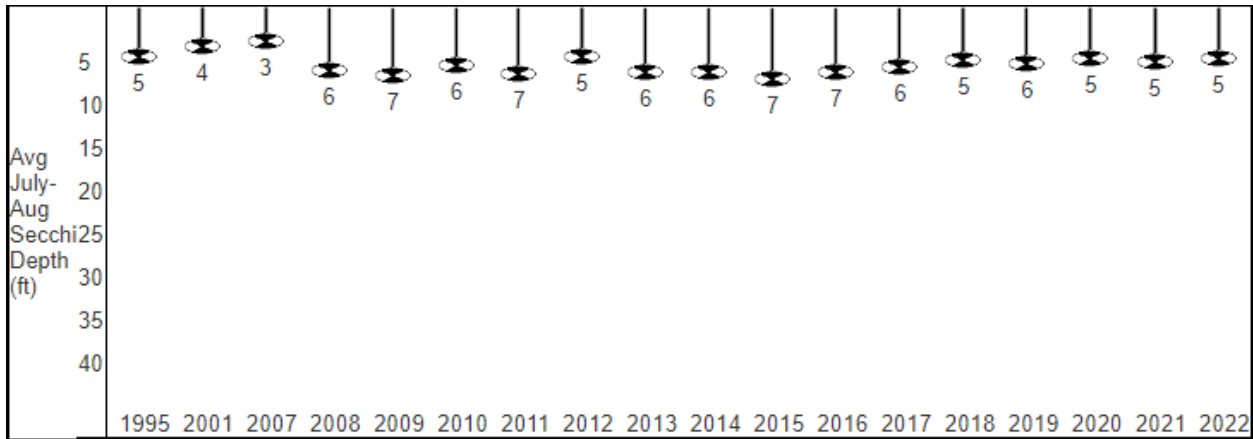


Figure 16: Historic Secchi disk readings of water clarity at the South Basin in Rice Lake

Chemistry data, including total phosphorus and chlorophyll-a, was collected at the South Basin in 2022. The average summer chlorophyll in the South Basin was 24.5µg/l, almost double what it was in 2021. The summer total phosphorus average was 27.2µg/l, just slightly less than it was in 2021.

The overall Trophic State Index (based on chlorophyll) for the South Basin was 59 (Figure 17). Like the TSI for the Central Basin, this value was higher than it was in 2021. The TSI suggests that the South Basin of Rice Lake was eutrophic. This TSI usually suggests decreased clarity, fewer algal species, oxygen-depleted bottom waters during the summer, plant overgrowth evident, warm-water fisheries (pike, perch, bass, etc.) only.

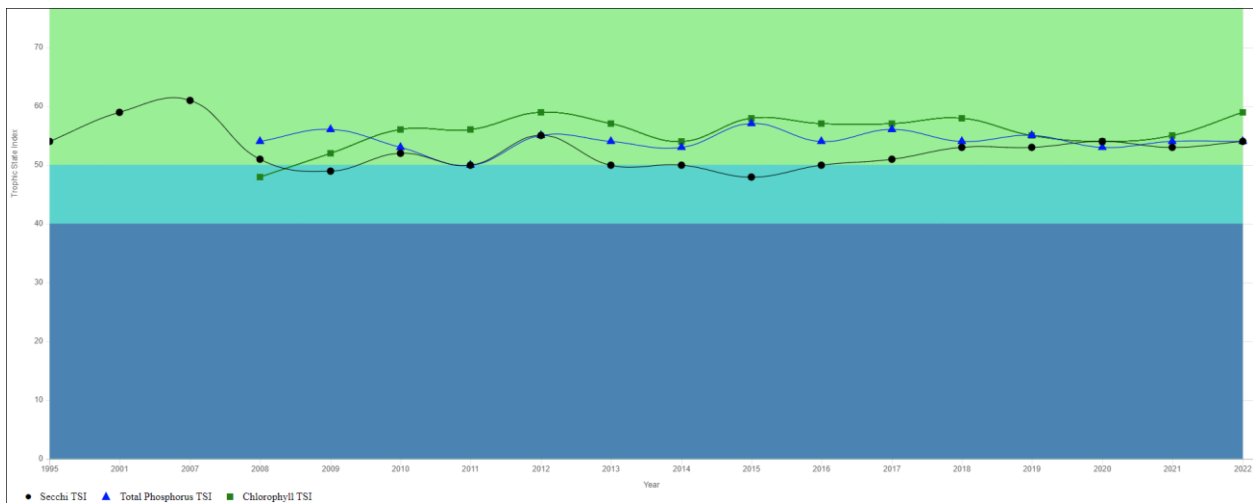


Figure 17: Historical TSI values for water clarity, total phosphorus, and chlorophyll-a at the South Basin in Rice Lake

Typically, the South Basin and Central Basin of Rice Lake behave differently in regards to water quality. The South Basin generally holds better water quality than the Central Basin well into August. This is due to the South Basin being deeper and separate from the impacts of the Red Cedar River and Bear Creek that flow into the Central Basin. However, by mid-August water quality in the South Basin begins to deteriorate when oxygen in the deeper water is depleted leading to an internal release of phosphorus into the lake. The Central Basin generally does not stratify like the South Basin, so the oxygen seldom is depleted (Figure18).

08/17/2022			09/13/2022			10/01/2022		
Depth FEET	Temp. DEGREES F	D.O. MG/L	Depth FEET	Temp. DEGREES F	D.O. MG/L	Depth FEET	Temp. DEGREES F	D.O. MG/L
0	74.2	14.02	0	68.8	10.64	0	58.4	10.93
3	73.7	14.16	3	68.5	10.69	3	58.2	10.92
6	72	7.95	6	68.1	10.36	6	58.1	10.4
9	70.8	7.1	9	67.5	9.7	9	58	9.78
12	69.8	4.88	12	67.1	9.6	12	57.7	7.03
15	69.3	.23	15	67.3	7.77	14	57.5	3.54

08/17/2022			09/13/2022			10/01/2022		
Depth FEET	Temp. DEGREES F	D.O. MG/L	Depth FEET	Temp. DEGREES F	D.O. MG/L	Depth FEET	Temp. DEGREES F	D.O. MG/L
0	73.9	9.8	0	70.6	7.42	0	59.6	10.56
3	73.7	9.77	3	70.2	7.35	3	59.8	10.57
6	72.3	6.18	6	69.8	7.05	6	59.7	9.51
9	72	4.46	9	69.6	6.7	9	59.7	9.41
12	71.3	4.19	12	69.6	6.2	12	59.7	8.65
15	67.4	1.85	15	69.3	4.71	15	59.6	8.12
18	64.2	.25	18	68.5	.28	18	59.4	6.72
19.5		.13						

Figure 18: Dissolved oxygen and temperature profiles from the middle of August to early October: Central Basin (top) and South Basin (bottom)

2023 PRELIMINARY MANAGEMENT PLANNING

Preliminary HWM management planning for 2023 includes more physical and diver removal of individual plants in both Clearwater Bay and the South Basin. A small chemical treatment of one area of Clearwater Bay totaling 2.8 acres has been proposed (Figure 19). If the treatment is permitted, ProcellaCOR at a little higher application rate will be the recommended herbicide. An alternative treatment would include a larger area and use a liquid 2,4D-based herbicide.

No chemical treatment of CLP is expected in 2023, however, the RLPRD will continue to harvest CLP from the entire lake, and native aquatic vegetation from the same navigation and access lanes that have been harvested in the past.

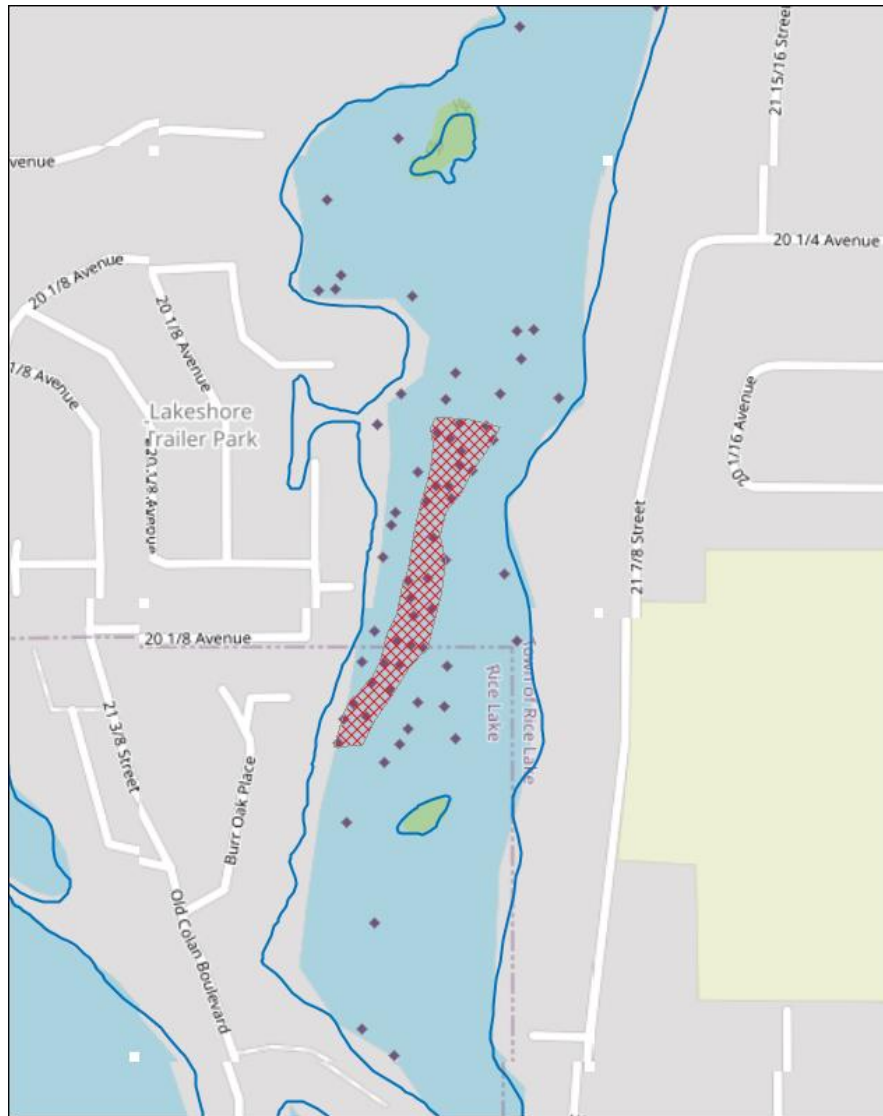


Figure 19: 2023 potential HWM chemical treatment area in Clearwater Bay

2022 WATERCRAFT INSPECTION – CLEAN BOATS CLEAN WATERS

The following are the details from the 2022 watercraft inspection program at the main public boat landings on Rice Lake.

- Three Landings – 519.5 hours
 - Orchard Beach – 268.5 hrs
 - Stein – 246 hrs
 - Arnolds – 4 hrs
- Weekend Time = 230.5 hrs
- Weekday Time = 289 hrs
- Boats Inspected = 535
- People Contacted = 1,297
- 9 lakes w/EWM, 3 lakes with zebra mussels

The RLPRD has already submitted a CBCW grant to cover watercraft inspection in 2023.

2023 RECREATIONAL BOATING FACILITIES (RBF) GRANT APPLICATION

The RLPRD currently owns three large mechanical harvesters. The newest was purchased only a few years ago. The oldest is approaching 30 years in operation, built for the RLPRD in 1994. This oldest harvester, while having been meticulously maintained by the RLPRD, suffered many mechanical breakdowns in 2022 that slowed down harvesting results. With the goal of replacing that harvester by 2024, the RLPRD has submitted an RBF grant requesting funds from the State of Wisconsin to help purchase a new one.

2023

The grant awarded to the RLPRD in early 2022 continues through the end of 2023. Most of the tasks completed in 2022 will be completed again in 2023. However, none of the existing grant money will be used to implement chemical management. If chemical management is used to control HWM in 2023, it will be covered by RLPRD funds.