

**Minutes of the Lake Oakland
Lake Improvement Board Meeting
May 17, 2022**

Mr. Sabina called the meeting to order at 3:11 p.m. at the Oakland County Water Resources Commissioner 1st Floor Meeting Room.

PRESENT: Rick Sabina, Citizen Member/Chairperson
George Nichols, Oakland County WRC, Secretary
Karen Joliat, Oakland County Board of Commissioners
Kimberly Markee, Waterford Township Clerk
Terri Nallamotheu, Independence Township Trustee
Paul Hausler, Progressive AE
Michael Perzyk, Resident (3790 Rutherford Court, Waterford, MI)
Angie Okonski, Resident (3781 Rutherford Court, Waterford, MI)

Open Meeting

All participants stated their name and affiliation for the record.

Mr. Sabina reminded everyone to sign the attendance sheet (see Attachment 'A').

Approval of the Meeting Agenda:

Kimberly Markee, supported by Terri Nallamotheu, moved to accept the meeting agenda as presented (see Attachment 'B').

Motion Carried Unanimously

Approval of Meeting Minutes:

Kimberly Markee, supported by Terri Nallamotheu, moved to accept the minutes as submitted for the meeting of October 5, 2021.

Motion Carried Unanimously

Paul Hausler will post the meeting minutes on the Lake Oakland website.

Old Business:

A. Project Work Journal

Paul Hausler provided a handout that outlines the Proposed Annual Budget and Plan Assessments for 2019-2023. (see Attachment 'C')

Paul Hausler provided a Project Work Journal (see Attachment 'D') dated May 16, 2022 that outlines the services regarding plant control and associated costs to date for the 2022 calendar year. The annual EGLE permit fee of \$1,500 is also noted as a deduction. It is noted that a survey was done on May 4, 2022 and the first treatment on the lake was on May 12, 2022.

B. Herbicide Treatment Update

Paul Hausler stated that a herbicide treatment occurred on May 12, 2022 (see Attachment 'E' – May 4, 2022 Treatment Maps). There was very little growth as it was early in the season and the water temperature was 55°F. The targeted species were filamentous algae and Eurasian Milfoil. It is anticipated that the next survey will take place on June 2nd.

C. Plant Harvesting Update

Paul Hausler provided a calendar of Savin Lake Services Mechanical Harvesting Schedule (see Attachment 'F') which shows that the harvesting is scheduled to occur from July 5, thru July 13 on Lake Oakland. A second harvest is tentatively scheduled for August 29 thru September 2.

D. Purple Loosestrife Beetles

Rick Sabina stated that he contacted Cindy at Integrated Weed Control in Bozemen, Montana. He placed an order for 8 containers but there is no commitment as you only pay on the amount that was shipped once they are delivered. They get shipped overnight and need to be planted within 24 hours of arriving. These services fall under the administration and contingency line item.

New Business

A. 2021 Lake Oakland Lake Improvement Board Chairman Report

Rick Sabina presented the report (see Attachment 'G') which showed the treatment and harvest dates that occurred. There was also a comparison of the harvest acreage, truckloads and man hours over the past three years. Since harvesting is paid based on the acre, it seems evident that Lake Oakland is receiving quite a benefit by harvesting later in the season.

Rick Sabina also spoke about the Purple Loosestrife beetles seeding that initially occurred in 2019 and seems to be very beneficial. Discussion also included topics of Water Quality Monitoring, Lake Oakland Fish Survey, and Storm Drain Cleanout and Labeling. The 2021 Water Quality Report is posted on the website. The final results usually take 2-3 years to be distributed by the DNR but the preliminary results show that Blue Gill were the most popular type of fish, and that there are 25-30 different species of fish in the lake. George Nichols will follow up with the Road Commission regarding the status of the catch basin cleaning.

B. 2024-2028 Assessment Budget

The Board decides what they would like to include regarding items on the assessment role. Past costs are viewed regarding lake treatments to establish a projected cost of services over the next five years. Other nearby lake assessments are reviewed to help with determining costs and services. It is anticipated that a public hearing will take place in June 2023.

Public Comments:

Angie Okonski brought up the issues with the swans on the lake and how aggressive they can be. She also mentioned the boat launch area has a very strong smell of dead fish. This may be caused by night fisherman dumping their fish as they exit the lake. It was suggested that Angie call the Parks Division of the DNR as they own and maintain the boat launch area.

Michael Perzyk commented on the need to have improvements along Dill Road. It was discussed that the Road Commission for Oakland County (RCOC) is aware of the needed improvements. Aside from the residents, the road is used primarily for the elementary school and the boat launch.

Michael Perzyk commented on the algae blooms popping up and the sediment buildup is terrible, especially in the cove area. There are a lot of lily pads in the area as well. His top three concerns are the weeds, muck, and algae blooms. He is looking to the Board for some help to clean up the area.

There is an outhouse near the boat launch and inquiring how often it gets serviced. There is a strong aroma coming from it and needs to be cleaned out. Rick Sabina stated he will contact the Parks Division of the DNR to find out about getting it serviced.

Lake Oakland Invoice Ratification:

Rick Sabina outlined invoice #17078 from Aqua-Weed Control (dated February 21, 2022) in the amount of \$1,500 for 2022 Herbicide Treatment EGLE Permit Fee, as noted in Item '7a'.

Karen Joliat, supported by Kimberly Markee, acknowledged the correspondence and to ratify the approval and payment of the invoice.

Motion Carried Unanimously

Rick Sabina outlined invoice #185517 from Progressive AE (dated January 3, 2022) for Lake Management Administration and Oversight Quarterly Services thru December 31, 2021, in the amount of \$5,000, as noted in Item '7b'.

Terri Nallamotheu, supported by Karen Joliat, acknowledged the correspondence and to ratify the approval and payment of the invoice.

Motion Carried Unanimously

Rick Sabina outlined invoice #186798 from Progressive AE (dated April 1, 2022) for Lake Management Administration and Oversight Quarterly Services thru March 31, 2022, in the amount of \$5,000, as noted in Item '7c'.

Karen Joliat, supported by Terri Nallamotheu, acknowledged the correspondence and to ratify the approval and payment of the invoice.

Motion Carried Unanimously

Board Member Comments

Rick Sabina discussed the Mobile Aquatic Invasive Species (AIS) Station and that he is still waiting for a usage report from last year. He will check on the availability of this unit again for this year. In Rick's discussion with the contact person, they were stating that they didn't do a very good job in advertising last year. Looking at other ways of notifying the boat owners. Rick will inquire on the availability of usage and will try to get it for two weeks.

Meeting Schedule:

The next Lake Board meeting will be held on Tuesday, June 21, 2022, at 3:00 p.m. The meeting will take place at Oakland County Water Resources Commissioner office. The address is One Public Works Drive, Building 95W, Waterford, Michigan. This will be posted on the website.

Adjournment:

Karen Joliat, supported by Kimberly Markee, moved to adjourn the meeting at 4:20 p.m.

Motion Carried Unanimously

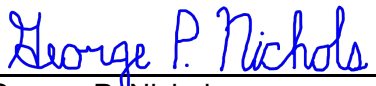


George P. Nichols
Lake Improvement Board Secretary
For Lake Oakland

STATE OF MICHIGAN)
) ss:
COUNTY OF OAKLAND)

I hereby certify that the foregoing is a true and complete copy of the minutes of the Lake Improvement Board for Lake Oakland, Oakland County, Michigan held on the 17th day of May 2022 and that the said minutes are on file in the Office of the Oakland County Water Resources Commissioner and are available to the public.

I further certify that notice of the meeting was posted at least 18 hours before the meeting at the Office of the Oakland County Water Resources Commissioner, which is the principal office of the Lake Improvement Board for Lake Oakland.



George P. Nichols
Lake Improvement Board Secretary
For Lake Oakland

Dated: May 23, 2022

Attachment 'A'

**OAKLAND COUNTY WATER RESOURCES COMMISSIONER
ATTENDANCE SHEET**

DATE: May 17, 2022 @ 3:00 p.m. FACILITATOR: _____

TYPE Lake Improvement Board Meeting (WRC 1st Floor Conference Room)

TOPIC: Lake Oakland Lake Improvement Board Meeting

PRINTED NAME	E-MAIL	ADDRESS	CONTACT NUMBER
Angie Okonski	aokonski@comcast.net	3781 Rutherford Ct. Waterford	248-496-8775
Rick Sabina	sabina@oakland.edu	3112 Pine Tree Ct Waterford	248-877-0150
Michael Perzyk	bater785@hotmail.com	3790 Rutherford Ct Waterford	248-892-3518
GEORGE NICHOLS	nicholsge@oakgov.com	One Public Works Dr. Waterford, MI 48328	248-841-3006
Terri Nallamothy	terrinnallamothu@mac.com	7427 Foxburg Ct Clarkston 48348	248-892-0210
Kimberly Markee	Kmarkee@waterfordmi.gov	5200 Civic Ctr. Dr. Waterford, MI 48329	248-674-6211
Karen Joliat	joliatk@yahoo	418 Lakewood Waterford, MI	248-935-6133

Attachment 'B'

AGENDA

LAKE OAKLAND LAKE IMPROVEMENT BOARD

Tuesday, May 17, 2022 – 3:00 p.m.

Oakland County Water Resources Commissioner 1st Floor Meeting Room

1. Open Meeting
 - a. Introductions and Attendance

2. Approval of the Meeting Agenda for May 17, 2022

3. Approval of Meeting Minutes from October 5, 2021

4. Old Business
 - a. Project Work Journal
 - b. Herbicide Treatment Update – May 12th application
 - c. Plant Harvesting Update
 - d. Loosestrife beetle plantings

5. New Business
 - a. 2021 Lake Oakland Lake Improvement Board Chairperson Report
 - b. 2024-2028 Assessment Budget

6. Public Comments

7. Lake Oakland Invoice Ratification
 - a. Ratification of Aqua-Weed Control Invoice #17078 (dated 2/21/22) for 2022 Herbicide Treatment EGLE Permit Fee in the amount of \$1,500.

- b. Ratification of Progressive AE Invoice #185517 (dated 1/3/22) for Lake Management Administration and Oversight Quarterly Services thru December 31, 2021, in the amount of \$5,000.
- c. Ratification of Progressive AE Invoice #186798 (dated 4/1/22) for Lake Management Administration and Oversight Quarterly Services thru March 31, 2022, in the amount of \$5,000.

8. Board Member Comments

9. All Else

- a. Schedule next meeting date

10. Adjournment

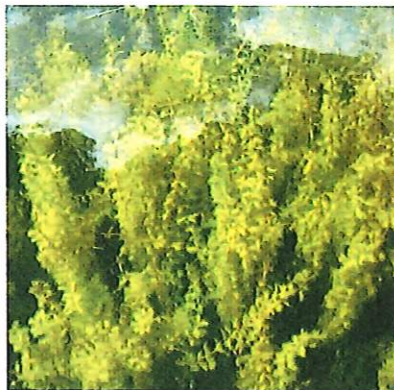
Attachment 'C'

LAKE OAKLAND

LAKE IMPROVEMENT PROJECT PROPOSED ANNUAL BUDGET AND PLAN 2019 -- 2023

IMPROVEMENT	ANNUAL COST
Nuisance Aquatic Plant Control	\$70,000
Aquatic Plant Control Coordination/Field Evaluations	\$9,000
Hydro-Acoustic Mapping	\$1,500
Water Quality Monitoring	\$3,500
Information and Education	\$3,000
Fish Stocking and Goose Round-Up	\$2,500
Administration and Contingency	\$8,000
TOTAL	\$97,500

The Lake Oakland plant control program would include a combination of herbicide treatments and mechanical harvesting. The program would focus primarily on invasive species such as Eurasian milfoil, curly-leaf pondweed and starry stonewort.



Eurasian milfoil



Curly-leaf pondweed



Starry stonewort

Plant control activities are proposed to be coordinated under the direction of the Lake Oakland Improvement Board's consultant, Progressive AE. The consultant would be responsible for preparing contract documents for the plant control program, conducting GPS-guided surveys of the lake to determine the scope of work to be performed by the plant control contractors, and conducting follow-up surveys to ensure work is performed in a satisfactory manner. The consultant would report to the lake board regarding plant control effectiveness, and maintain a written record of the timing, scope and cost of plant control activities.

Lake Oakland was mapped in 1944 by the Michigan Department of Conservation. Since that time, significant alterations to the shoreline have occurred. To provide an updated map of the lake, recent orthodigital photography would be used to delineate the lake shoreline and a hydro-acoustic survey of the lake bottom would be conducted to measure current water depths, plant bio-volume (i.e., the height of plants in the water column) and sediment hardness. A series of maps of Lake Oakland would then be created that show depth contours, the height and location of plants in the lake, and sediment hardness. In addition, an updated aquatic vegetation survey map with GPS reference points would be created to facilitate future aquatic plant surveys. Digital copies of all maps would be posted on the lake board's website.

Annual water quality sampling would be conducted in the spring and late summer to evaluate baseline water quality conditions in Lake Oakland. Samples would be collected at 10-foot intervals from the surface to the bottom over the deepest basin to measure temperature, dissolved oxygen, and total phosphorus. In addition, measurements of Secchi transparency and chlorophyll-a levels would be taken during each sampling period. In the first year of the monitoring program, the following additional parameters would be analyzed surface to bottom: total suspended solids, chloride, pH and alkalinity. Sampling conducted during the project would provide a benchmark from which to gauge future changes in water quality. Monitoring results would be posted annually on the lake board's website.

Information regarding the Lake Oakland Improvement Project would continue to be posted on the Lake Oakland Improvement Board's website (www.lakeoaklandboard.org). The website would be updated annually and include information regarding lake board activities, the nuisance plant control program, water quality monitoring results, updated lake maps, lake and watershed facts, and would include links to other information sources.

Fish stocking and goose round-ups are proposed to be conducted on an as-needed basis throughout the duration of the project.

Project administration and contingency would include costs related to public hearing proceedings, mailings, meetings, and contingent expenses.

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Attachment 'D'

Project Work Journal Lake Oakland

2022 Beginning Balance: \$70,000.00

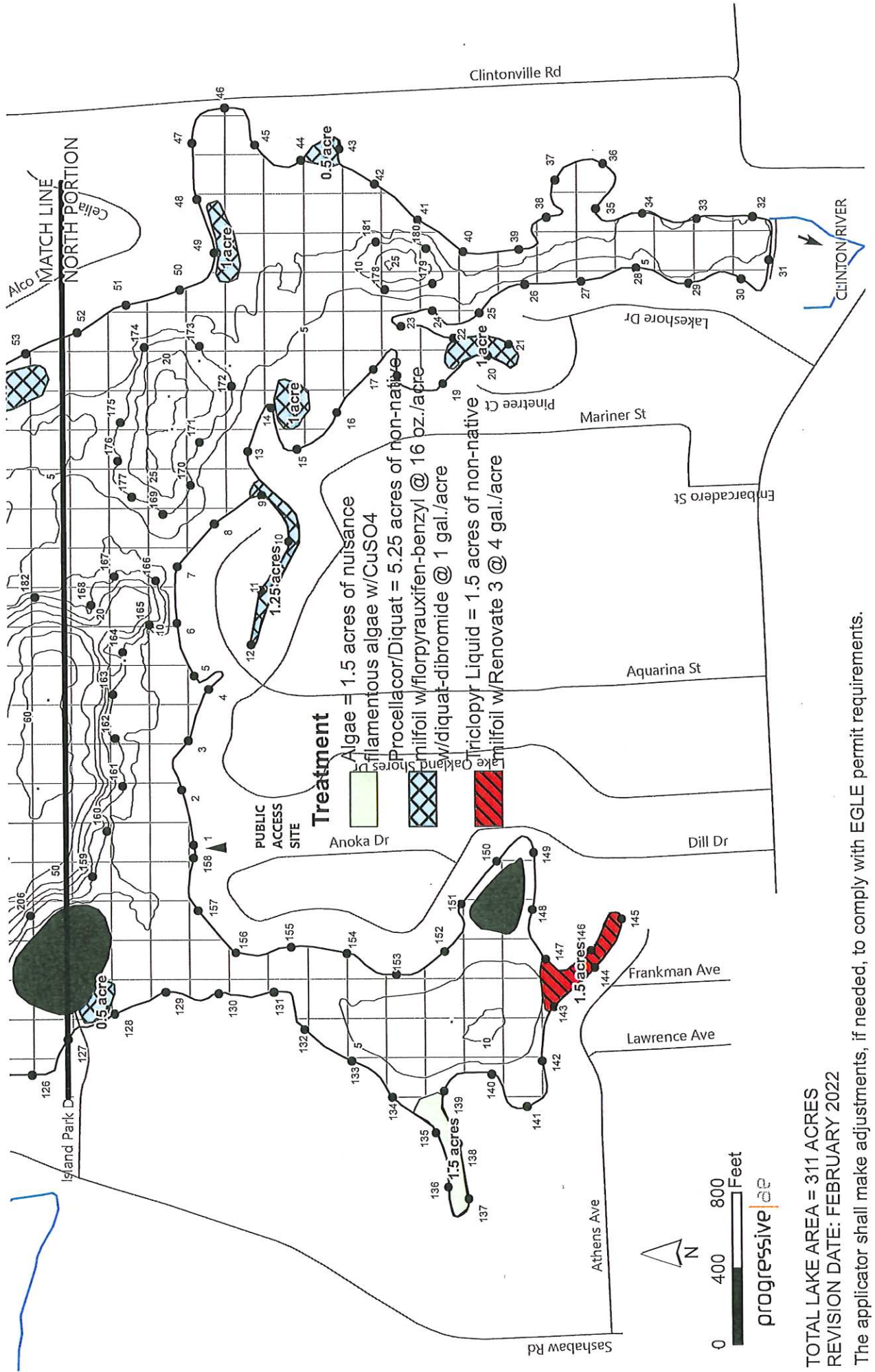
Date	Type	Results	Dose Rate	Remaining Balance
1/3/2022	Permit	Reimbursement for 2022 EGLE permit fee		
	Application Date	Target Species	Qty	Cost
1/10/2022	Permit Fee		1.00 each	\$1,500.00
			Invoice 17078 Total	\$1,500.00
5/4/2022	Survey	Found some milfoil. Very little curly-leaf pondweed. Water temp. = 55F.		
	Treatment Date	Target Species	Dose Rate	Remaining Balance
5/12/2022	Algae control (filamentous and planktonic)	Filamentous or Planktonic Algae	1.50 acre(s)	\$60.00
5/12/2022	Triclopyr liquid	Eurasian Milfoil	7.50 acre(s)	\$2,499.98
5/12/2022	ProcellaCOR	Eurasian Milfoil	11.75 PDU	\$1,351.25
5/12/2022	Diquat dibromide @ 1 gal/acre + 4 PDU ProcellaCOR	Eurasian Milfoil	11.75 acre(s)	\$6,110.00
			Work Order Total	\$10,021.23

6/2/2022 Follow Up

Attachment 'E'

**LAKE OAKLAND (SOUTH PORTION)
OAKLAND COUNTY, MICHIGAN
MAY 4, 2022 TREATMENT MAP**

☐ = 1 ACRE



TOTAL LAKE AREA = 311 ACRES
REVISION DATE: FEBRUARY 2022

The applicator shall make adjustments, if needed, to comply with EGLE permit requirements.

**LAKE OAKLAND (NORTH PORTION)
OAKLAND COUNTY, MICHIGAN
MAY 4, 2022 TREATMENT MAP**

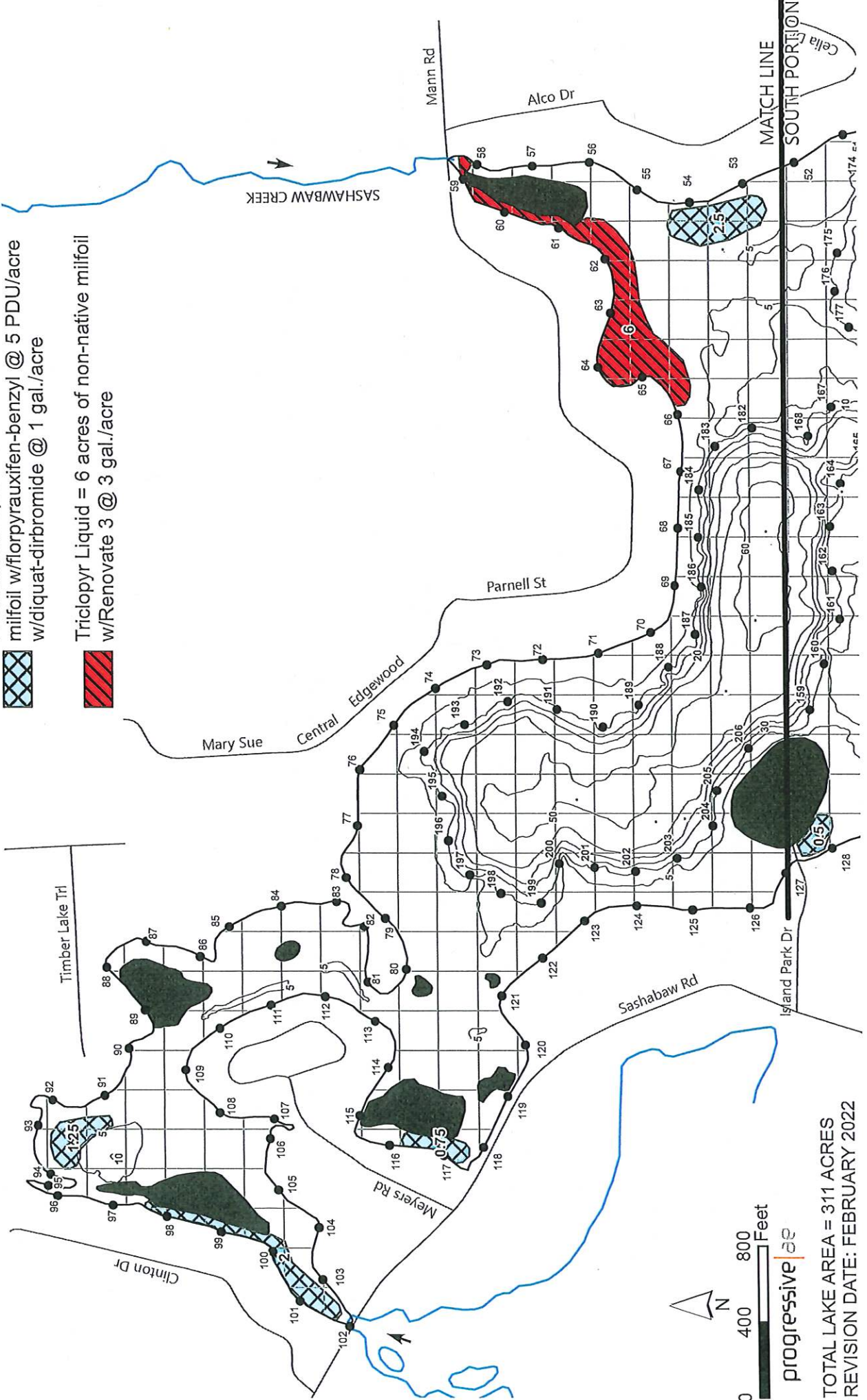
□ = 1 ACRE

Treatment

Procellacor/Diquat = 6.5 acres of non-native
milfoil w/florpyrauxifen-benzyl @ 5 PDU/acre
w/diquat-dibromide @ 1 gal./acre



Triclopyr Liquid = 6 acres of non-native milfoil
w/Renovate 3 @ 3 gal./acre



0 400 800 Feet
progressive | ae

TOTAL LAKE AREA = 311 ACRES
REVISION DATE: FEBRUARY 2022

The applicator shall make adjustments, if needed, to comply with EGLE permit requirements.

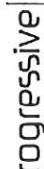
Attachment 'F'

Savin Lake Services – Mechanical Harvesting Schedule | 2022

Project	Scheduled Harvest(s)	Unit Costs	Additional Insured Parties Required	Local Contact(s)
Stone Lake	June 20 – June 24	[REDACTED]	<ul style="list-style-type: none"> Stone Lake Improvement Board Progressive AE 	Emilie Sarratore (269) 655-4473 (manager@cassopolis-mi.us) Ted Gogol (tcgogol@gmail.com)
Lake Oakland	July 5 – 13	\$450.00 per acre for plants; \$575.00 per acre for SSW	<ul style="list-style-type: none"> Lake Oakland Improvement Board Progressive AE 	Rick Sabina (sabina@oakland.edu)
Upper Straits Lake	July 15 - 19	[REDACTED]	<ul style="list-style-type: none"> Upper Straits Clean Lake Association 	Joe Pierucci (joe.pierucci@gmail.com)
Stony Lake	July 21 - 27	[REDACTED]	<ul style="list-style-type: none"> Stony Lake Improvement Board Progressive AE 	Dave Zoller (231) 861-5606 (dzoller@hotmail.com)
Lake Oakland	August 29 – Sept. 2	Same as above	<ul style="list-style-type: none"> Same as above 	Same as above

Paul: Here is the mechanical harvesting final schedule for 2022. Please call us immediately if you see any conflicts or have any questions.

Authorization to begin harvesting, along with a map of areas to be harvested shall be provided by the Consultant via email from water@progressiveae.com. Upon receipt of the authorization email, the Contractor shall enter the anticipated harvesting start- and end-date at water.progressiveae.com.

progressive | 

Attachment 'G'

2021 LAKE OAKLAND LAKE IMPROVEMENT BOARD REPORT

Treatment of Invasive and Nuisance Weeds

May 5 Survey – May 18 Treatment
June 10 Survey – June 15 Treatment
July 12 Survey – July 20 Treatment
August 5 Survey - August 11 Treatment
September 1 Survey – September 13 Treatment

The late spring and summer of 2021 were once again warm ones that promoted robust aquatic plant growth in Lake Oakland, thus requiring 5 treatments. Immediately ahead of all treatment dates, Aqua-Weed Control posted markers on the lakefront areas that were to be directly treated. It is important to mention that these postings do not specifically identify what chemicals were added at each site. In order to determine which chemicals were added near to your shoreline, lake riparians can refer to treatment maps that are posted on the “News” page of the lake board website (www.lakeoaklandboard.org). Alternatively, lake riparians can sign-up for emails with attached treatment/harvesting maps that will alert them to upcoming treatments, harvests, and board meetings (form can be found on the front page of the website; **50 riparians are now enrolled**). It is also important to recall that many Lakeshore Drive lakefront properties are located within 1000 feet of the Lake Oakland dams and are not allowed to be directly treated according to Michigan DNR policy, although these lakefront properties do receive some downstream effect from treated areas.

That being stated, the most problematic invasive weed in Lake Oakland continues to be milfoil, both Eurasian and a native/Eurasian hybrid species. A newly approved product for controlling milfoil, ProcellaCOR, has been used with great success on over 20 acres in Lake Oakland since 2019, but is more expensive than Triclopyr (the primary product used to treat milfoil in other areas of the lake), but it does come with a 3-year guarantee. The supplier has paid for follow-up treatments deemed necessary in the treated areas since the initial application. Other treatments focused on algae and other nuisance weeds that grow and bloom throughout the summer, such as curly-leaf pond weed and wild celery.

Harvest of Invasive and Nuisance Weeds

June 28 - July 8
August 25 - 31

Beginning in 2019, the lake board decided to delay the initial harvest until after the July 4th holiday. The historic reason for an earlier harvest had been to ensure that the lake is in good shape for the festivities surrounding that holiday. However, late season growth of nuisance weeds had become a problem, so the lake board worked to reserve funds for a second late-season harvest in 2020 and 2021. Outcomes of these combined changes have resulted in much greater quantities of weeds harvested during the past three years:

Mid-June 2018: 24 acres weeds & 15 acres starry stonewort, **3 truckloads**, 44+ man hours
Late-July 2019: 20 acres weeds & 15 acres starry stonewort, **35 truckloads**, 280+ man hours
July & Sept 2020*: 52 acres weeds & 28 acres starry stonewort, **37 truckloads**, 365+ man hours

June/July & August 2021*: 38 acres weeds & 26 acres starry stonewort, **51 truckloads**, 300+ man hours

*, denotes two harvests

Since the lake board pays for harvesting by the acre, it seems evident that we are receiving quite a bit more bang for the buck by harvesting later in the season and we have been able to schedule a second harvest for the past two years. It is also important to point out that those who reside close to the Lake Oakland dams are included in both harvests.

PURPLE LOOSESTRIFE

After a pause in beetle availability, the lake board was able to continue with a biological approach aimed at keeping this invasive plant species in check (see the 2020 Lake Oakland Lake Improvement Board Report for more information). After an initial seeding in 2019 on the Sashabaw Creek island (the most dense area of infestation on the lake) with larvae of beetles that feed solely on purple loosestrife plant leaves, a second seeding was done with adult beetles in late June of 2021. Some beetles were also seeded on the Legion Hall island this year. Inspection of plants in late August 2021 revealed evidence of beetle activity (see photo), whereas plants in untreated areas appeared intact.



Once established, these beetles will spread out over other parts of the lake to areas that are beginning to experience purple loosestrife infestation. The board plans to do a third seeding in summer of 2022. I personally have been managing the common lakefront areas in my subdivision for the past 4 years, but am also asking lakefront owners to be on the lookout for blooms in their properties and to remove them before they get too large to do so manually. **I would be glad to help you remove these invasive weeds!**

Lake Oakland Water Quality Monitoring

The lake board is contracted with ProgressiveAE to conduct annual testing of lake water quality (clarity, chlorophyll, phosphorous, oxygen, pH) and a data base is being developed for our lake. A final report on 2020 Lake Oakland water quality (<https://www.lakeoaklandboard.org/water-quality>) are available for review and a final report for 2021 will be posted sometime this fall.

Lake Oakland Fish Survey

The Michigan DNR conducted a fish survey on Lake Oakland from May 10-13. The last survey was conducted in 2001 and an update is needed to help inform the lake board about past fish stocking and the need for future fish stocking. A final report should be available for Lake Oakland in about one year, and once available will be posted on the lake board website. Preliminary data compiled from combined data obtained from Lake Oakland and Woodhull Lake indicate good biodiversity of predator and prey species.

Storm Drain Cleanout & Labeling

At the request of a lake riparian who resides in Lake Oakland Heights, George Nichols (Water Commissioner's Office representative on the lake board) submitted a request to the Road Commission for Oakland County (RCOC) for catch basin cleaning in that subdivision. These are catch basins that drain directly into Lake Oakland. Towards a similar end, I created a photo map of 12 drains in the Lake Oakland Estates subdivision and Mr. Nichols submitted a request to have those catch basins cleaned as well. RCOC has noted that these requests are on their schedule, but they could not provide an exact date. Mr. Nichols will periodically contact RCOC for a schedule update.

Relatedly, the lake board has purchased a 12" x 30" stencil for use in labeling catch basin drains in response to a request from a lake riparian.



This stencil is available to all Lake Oakland riparians and the lake board recommends that white paint be used to label these drains and to first contact the homeowners where these drains are located in order to inform them of the labeling and to gain their acknowledgment of the work.

Respectfully submitted,

Rick Sabina
Chair, Lake Oakland Lake Improvement Board