

AGENDA

WALLED LAKE LAKE IMPROVEMENT BOARD MEETING

SEPTEMBER 14, 2023
2:00 PM

Novi Civic Center
45175 Ten Mile Road
Novi, MI

- I. Call Meeting to Order
- II. Roll Call
- III. Public Comment
- IV. Approval of Minutes of September 21, 2022 Meeting
- V. Acceptance of 2023 Treasurer's Report and 2022 Annual Financial Report
- VI. Approval to reimburse the Chair to attend educational trainings
- VII. Certification of Delinquent Assessment Reports from Walled Lake and Novi
- VIII. Presentation by Ross Simpson, Earth Food BioChar- product that binds excess phosphate/phosphorus and nutrients from the water
- IX. Discussion of 2023 Treatment Review by Savin Lake Services
- X. Discussion of 2024 Treatment Recommendations by Savin Lake Services
- XI. Consideration of renewal with Savin Lake Services for 2024 lake treatment services
- XII. Consideration of insurance coverage for the Board
- XIII. Approval of 2024 Budget
- XIV. Public Comment
- XV. Other Business
- XVI. Adjournment

Please visit www.cityofnovi.org/lakeboard for additional information

**WALLED LAKE
LAKE IMPROVEMENT BOARD
MEETING MINUTES
SEPTEMBER 21, 2022**

The meeting of the Lake Improvement Board for Walled Lake was held at the Novi Civic Center Council Chambers. The meeting was called to order by Tina Miller, Chair, at 2:04 PM.

Present:

Tina Miller, Riparian Owner Representative (Chair)
Gwen Markham, Oakland County Board of Commissioner's Representative
Megan Mikus, City of Novi Representative (Secretary-Treasurer)
Karen Warren, Oakland County Water Resource Commissioner's Representative
Dennis O'Rourke, City of Walled Lake Representative

Also, Present:

Mark Roberts, Attorney, Secrest Wardle
Paul Barber, Savin Lake Services, Operations Manager

Public Comment

No members of the public commented.

Public comment ended.

Approval of September 21, 2021 Minutes:

Moved by O'Rourke, Supported by Markham

CARRIED 5-0: To approve the minutes of the September 21, 2021 meeting.

Treasurer's Reports

Treasurer/ Member Mikus presented the 2021 Annual Financial Report. She reported expenses were under budget and the year-end balance was \$110,802.17. She noted the City of Walled Lake was overbilled for the 2020 Assessments by \$25.81; therefore, the bill for 2021 Assessments was adjusted for this.

Moved by Mikus, Supported by Markham

CARRIED 5-0: To accept the 2021 Annual Financial Report.

Treasurer/ Member Mikus presented the 2022 Treasurer's Report for activity through September 15, 2022. The balance on hand was \$127,977.22.

Moved by O'Rourke, Supported by Warren

CARRIED 5-0: To accept the 2022 Treasurer's Report for activity through September 15, 2022.

Chair Miller presented a request for reimbursement for educational courses and conferences about lake management she attended in 2022. Member Markham stated she supported the Chair in attending these trainings, especially since Walled Lake is one of the largest lakes in Oakland County.

**WALLED LAKE
LAKE IMPROVEMENT BOARD
MEETING MINUTES
SEPTEMBER 21, 2022**

Moved by Markham, Supported by O'Rourke

CARRIED 5-0: To reimburse Chair Miller \$1042.94 for educational trainings she attended.

Certification of Delinquent Assessment Reports from Walled Lake and Novi

Treasurer/ Member Mikus reported the City of Walled Lake does not have any assessment delinquencies since the City of Walled Lake paid the full assessment amount, \$37,376.96 on March 24. The City of Novi reports a total of \$3,024.65 is delinquent from 27 parcels.

Moved by Mikus, Supported by Markham

CARRIED 5-0: To certify the delinquent assessments received from the City of Novi and to submit them to the City Assessor.

Discussion of 2021 Water Quality Report, 2022 Treatment Review, and 2023 Treatment Recommendations

Member Mikus stated the 2021 Water Quality Report is included in the packet as it was not available before the September meeting last year. She asked Paul Barber, Operations Manager for Savin Lake Services, why some of the September 2021 parameters were poor compared to the May 2021 ones. Paul Barber said it was most likely because the samples were taken after a heavy rain, which would impact the results.

Paul Barber, Operations Manager for Savin Lake Services, gave a PowerPoint presentation on treatment and surveys over the past year. This included a management summary, a timeline of services rendered, and all the treatment maps for the work that was completed for 2022. He found the use of ProcellaCOR and Diquate Dibromide Combo was effective.

Paul Barber, Operations Manager for Savin Lake Services, then continued the PowerPoint presentation with Savin's 2023 Walled Lake Aquatic Weed Control proposal. This included a management plan, recommended surveys, studies, herbicides to be utilized, proposed fees, and estimated costs. The fee schedule, costs, and plan proposed were the same as in 2022. Paul Barber noted he is concern there is too much phosphorous in the lake, which limits nutrients that promotes growth. He recommends taking samples next year, and presenting treatment options then. The Board members were in favor of this.

Member Warren left the meeting temporarily at 3:00 PM.

Consideration of renewal with Savin Lake Services for 2023 lake treatment services

Moved by Mikus, Supported by Markham

CARRIED 4-0: To approve the lake treatment services contract renewal with Savin Lake Services for the year 2023.

**WALLED LAKE
LAKE IMPROVEMENT BOARD
MEETING MINUTES
SEPTEMBER 21, 2022**

Member Warren returned at 3:05 PM.

Insurance Quote for Lake Board

Attorney Roberts recommended the Board look into getting a quote for insurance for the Lake Board to cover any liabilities for the Board in the future. This insurance would be in addition to the insurance the Board requires of the lake management company.

Moved Markham, Supported by O'Rourke.

CARRIED 5-0: To have Member Mikus obtain a quote for the Lake Board for liabilities in the future.

Approval of 2022 Budget

Member/ Treasurer Mikus presented the proposed annual budget for 2023. Since the treatment plan and lake management costs did not change, the budget proposed is the same as in 2022.

Moved by Markham, Supported by Mikus.

CARRIED 5-0: To approve the 2023 annual budget as proposed.

Public comment

No members of the public commented.

Public Comment ended.

OTHER BUSINESS

Member Mikus thanked Member Markham for her service on the Board as this would most likely be her last meeting due to the County's redistricting.

ADJOURNMENT: There being was no further business to come before the Lake Improvement Board; Member Mikus made a motion to adjourn, and all were in favor. The meeting was adjourned at 3: 16PM.

Megan Mikus
Secretary/Treasurer

**WALLED LAKE IMPROVEMENT BOARD
2022 ANNUAL FINANCIAL REPORT**

BALANCE ON HAND:	12/31/21	\$110,802.17
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INCOME	Annual Total	Budget	Notes
Assessments (City of Novi)	\$ 64,810.89	\$ 61,090.00	1,3
Assessments (City of Walled Lake)	\$ 37,376.96	\$ 37,403.00	2
TOTAL INCOME	\$ 102,187.85	\$ 98,493.00	

EXPENSES			
Harvesting and Herbicide Treatments (including studies and surveys)	\$ 84,574.50	\$ 108,365.00	
Permit Fee	\$ 1,500.00	\$ 1,500.00	
Administrative & Legal	\$ 700.20	\$ 1,500.00	
Other	\$ 1,042.94	\$ 1,000.00	
TOTAL EXPENSES	\$ 87,817.64	\$ 112,365.00	

BALANCE ON HAND:	12/31/22	\$125,172.38
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Notes

- 1 Novi payment includes assessments paid to date to Novi
- 2 Walled Lake has paid the assessment in full; overbilled the City \$25.81 for December 2020 assessments; bill for December 2021 assessments was adjusted for this
- 3 Include 2020 Delinquent Tax Settlement from the County (City of Novi)

INCOME DETAIL

<u>Description</u>	<u>Ref. Number</u>	<u>Entity</u>	<u>Amount</u>
2020 Delinquent Taxes (City of Novi)	28391	Oakland County	\$ 1,968.93

EXPENSE DETAIL

<u>Description</u>	<u>Invoice No.</u>	<u>Vendor</u>	<u>Amount</u>
Water Quality Sampling 5/4, Survey 5/31 & Herbicide Treatment 6/6/22	8091	Savin Lake Services	\$ 69,587.00
Legal Services through 07/31/22	1447510	Secretst Wardle	\$ 26.00
Herbicide Treatment 7/18/22	8416	Savin Lake Services	\$ 8,125.00
Herbicide Treatment 8/15/22	8632	Savin Lake Services	\$ 6,862.50
Legal Services through 09/30/22	1452047	Secretst Wardle	\$ 544.20
Conference Reimbursement	CR10649	Tina Miller	\$ 1,042.94
Legal Services through 11/30/22	1456298	Secretst Wardle	\$ 130.00
Permit Fee 2023	9076	Savin Lake Services	\$ 1,500.00

TOTAL EXPENSES **\$ 87,817.64**

Submitted by _____  _____
Megan Mikus, Secretary/Treasurer

**WALLED LAKE IMPROVEMENT BOARD
2023 TREASURER'S REPORT
Through September 1, 2023**

BALANCE ON HAND:	12/31/22	\$125,172.38
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INCOME		Annual Total	Budget	Notes
Assessments (City of Novi)	\$	61,490.14	\$ 61,090.00	1,3
Assessments (City of Walled Lake)	\$	37,402.77	\$ 37,403.00	2
TOTAL INCOME	\$	98,892.91	\$ 98,493.00	
EXPENSES				
Harvesting and Herbicide Treatments (including studies and surveys)	\$	48,576.66	\$ 108,365.00	
Permit Fee	\$	-	\$ 1,500.00	
Administrative & Legal	\$	-	\$ 1,500.00	
Other	\$	-	\$ 1,000.00	
TOTAL EXPENSES	\$	48,576.66	\$ 112,365.00	

BALANCE ON HAND:	09/01/23	\$175,488.63
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Notes

- 1 Novi payment includes assessments paid to date to Novi
- 2 Walled Lake has paid the assessment in full
- 3 Include 2021 Delinquent Tax Settlement from the County (City of Novi)


INCOME DETAIL

<u>Description</u>	<u>Ref. Number</u>	<u>Entity</u>	<u>Amount</u>
2021 Delinquent Taxes (City of Novi)	30653	Oakland County	\$ 1,647.93

EXPENSE DETAIL

<u>Description</u>	<u>Invoice No.</u>	<u>Vendor</u>	<u>Amount</u>
Water Quality Sampling 5/10, Survey 6/1 & Herbicide Treatment 6/7/23	9655	Savin Lake Services	\$ 41,572.65
Herbicide Treatment 7/19/23	9788	Savin Lake Services	\$ 7,004.01

TOTAL EXPENSES **\$ 48,576.66**

Submitted by 
Megan Mikus, Secretary/Treasurer

2023 Chair Educational Reimbursement Request

Michigan Lake Stewardship Associations Conference

Registration Fee	MLSA Conference held May 5-6, 2023	\$ 213.80
Accommodations	Crystal Mountain Resort, Thompsonville, MI (2 nights)	\$ 419.48
Mileage	477.6 miles to/from Novi and Thompsonville @ \$0.655 IRS Mileage Rate (2023)	\$ 31.28

Subtotal \$ 664.56

Michigan Clean Water Corps (MiCorps) Cooperative Lakes Monitoring Program

Secchi Disk Transparency	\$ 30.00
Invasive Aquatic Plants / Exotic Aquatic Plant Watch	\$ 30.00
Summer Total Phosphorus	\$ 30.00

Subtotal \$ 90.00

Grand Total \$ 754.56

MEMORANDUM

TO: WALLED LAKE IMPROVEMENT BOARD MEMBERS

FROM: MEGAN MIKUS, SECRETARY/TREASURER

SUBJECT: CERTIFICATION OF DELINQUENT ASSESSMENTS

DATE: SEPTEMBER 11, 2023

On September 9, 2020, the Walled Lake Improvement Board approved Resolution #5, which confirmed the special assessment roll. Paragraph 6 of the resolution requires that the City Treasurer for each city report any delinquencies to the Lake Board including the parcel number and the amount of delinquency.

The attached report has been provided by the City Treasurer for Novi reporting that a total of \$2,781.65 is delinquent from 27 parcels for the City of Novi. The interest accrued through September 1 for Novi delinquent payments is \$83.47. The City of Walled Lake paid the 2022 Walled Lake Improvement Board Assessment in full on March 22, 2023, in the amount of \$37,402.77.

The Lake Board is required by paragraph 6 of Resolution #5 to “certify the delinquency to the City’s Assessing official, who shall reassess on the City’s annual tax roll of that year the delinquent sum plus and six percent administrative fee and additional penalties as provided by law.”

A motion from the Lake Board is necessary to certify the delinquent amounts plus interest for the City Assessing official for each City.

City of Novi, Delinquent Lake Board Assessments

Parcel # Owner	Principal 2022 Delinquent Balance	1/2% per month Penalty	Additional 6% Penalty	City of Novi Total Installment
50-22-02-177-008 CICI, TONY & BRISILDA	\$ 39.27	\$ 1.18	\$ 2.36	\$ 42.81
50-22-02-326-011 CHACKO, ANITHA TRUST	\$ 196.34	\$ 5.89	\$ 11.78	\$ 214.01
50-22-02-355-022 GRIFFITH, JENNY KIMBERLY	\$ 196.34	\$ 5.89	\$ 11.78	\$ 214.01
50-22-03-126-002 EQUITY TRUST COMPANY	\$ 19.63	\$ 0.59	\$ 1.18	\$ 21.40
50-22-03-128-006 COOPER, RYAN & JENNIFER	\$ 39.27	\$ 1.18	\$ 2.36	\$ 42.81
50-22-03-131-016 SPACKMAN, CLIVE & STEPHANIE	\$ 196.34	\$ 5.89	\$ 11.78	\$ 214.01
50-22-03-131-049 BERGER, LEONARD	\$ 147.26	\$ 4.42	\$ 8.84	\$ 160.52
50-22-03-153-043 SAINCOME, MARK & DIANE	\$ 6.12	\$ 0.18	\$ 0.37	\$ 6.67
50-22-03-153-046 EBERLEIN, GREG & TEHVA	\$ 16.94	\$ 0.51	\$ 1.02	\$ 18.47
50-22-03-155-001 HENSON, DANNY R & JULIE A	\$ 196.34	\$ 5.89	\$ 11.78	\$ 214.01
50-22-03-155-020 COON, RONALD	\$ 196.34	\$ 5.89	\$ 11.78	\$ 214.01
50-22-03-201-001 PRIOR, JOHN M	\$ 39.27	\$ 1.18	\$ 2.36	\$ 42.81
50-22-03-204-023 HOARE, JAMES & LYDA, MADELANINE	\$ 196.34	\$ 5.89	\$ 11.78	\$ 214.01
50-22-03-204-031 BOYER, DAVID	\$ 196.34	\$ 5.89	\$ 11.78	\$ 214.01

Parcel # Owner	Principal 2022 Delinquent Balance	1/2% per month Penalty	Additional 6% Penalty	City of Novi Total Installment
50-22-03-329-004 GOMEZ, REBECA M. DELGADO	\$ 196.34	\$ 5.89	\$ 11.78	\$ 214.01
50-22-03-330-006 ANTOUNPOUR, CLAUDINE	\$ 196.34	\$ 5.89	\$ 11.78	\$ 214.01
50-22-03-351-037 FISHELL, MELANIE A & DONALD E	\$ 39.27	\$ 1.18	\$ 2.36	\$ 42.81
50-22-03-379-012 VARGAS, FRANCISCO ALEJANDRO MORITA	\$ 39.27	\$ 1.18	\$ 2.36	\$ 42.81
50-22-03-380-005 UNGER, KRISTEN	\$ 39.27	\$ 1.18	\$ 2.36	\$ 42.81
50-22-03-381-011 HODGES, DANIEL	\$ 39.27	\$ 1.18	\$ 2.36	\$ 42.81
50-22-03-382-001 COOK, DAVID	\$ 39.27	\$ 1.18	\$ 2.36	\$ 42.81
50-22-03-383-041 MCMURRAY, CYNTHIA	\$ 19.63	\$ 0.59	\$ 1.18	\$ 21.40
50-22-03-383-057 SPIESER, BEVERLY	\$ 19.63	\$ 0.59	\$ 1.18	\$ 21.40
50-22-03-402-002 VAUGHN, ANDREW	\$ 196.34	\$ 5.89	\$ 11.78	\$ 214.01
50-22-03-404-009 NAPIERALA, HALINA	\$ 196.34	\$ 5.89	\$ 11.78	\$ 214.01
50-22-03-455-005 BATES, KEVIN & RENEE	\$ 39.27	\$ 1.18	\$ 2.36	\$ 42.81
50-22-03-483-007 STREET, JOEL & GRACE	\$ 39.27	\$ 1.18	\$ 2.36	\$ 42.81
27	\$ 2,781.65	\$ 83.47	\$ 166.95	\$ 3,032.07

Walled Lake 2022 Water Quality Report

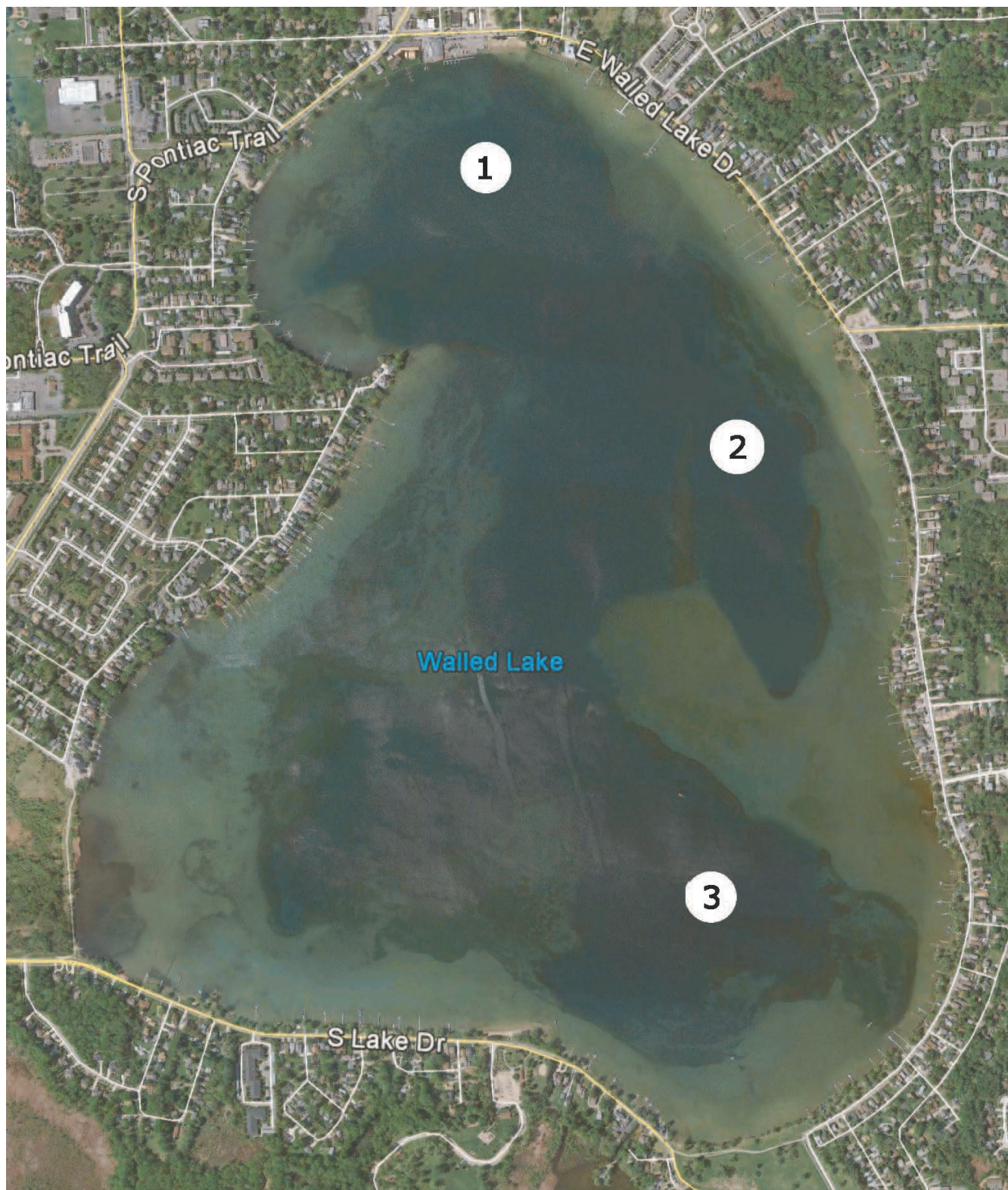
Summary:

Water Quality Testing was completed 2 times on Walled Lake in 2022 at 3 different locations around the lake. Of the parameters tested, Temperature, Dissolved Oxygen, Secchi Disk, and pH were sampled while on the lake. Chlorophyll α , Nitrate-N, Phosphorus, Alkalinity, and Conductivity were sampled by sending the water in sample bottles to an independent laboratory, White Water Associates located in Amasa, MI, where the analysis was ran.

A well-known limnologist named Wally Fusilier developed a grading scale for various parameters of water quality. Data collected in 2022 is shown below and given a grade based on Fusilier's scale. Additionally, historical data and parameter descriptions are provided at the end of this report.

Because herbicide treatment of aquatic vegetation has occurred on Walled Lake, it should be noted that the application of herbicide has no direct impact to the water quality of Walled Lake.

In 2022, most of the data was similar to what we have seen in the past. However, two noticeable differences were slightly higher spring phosphorus values, and slightly reduced secchi disk values. Overall the lake remains the same. We will take note of these two differences and compare with values in 2023.



(Walled Lake Sampling Sites)

2022 Results:

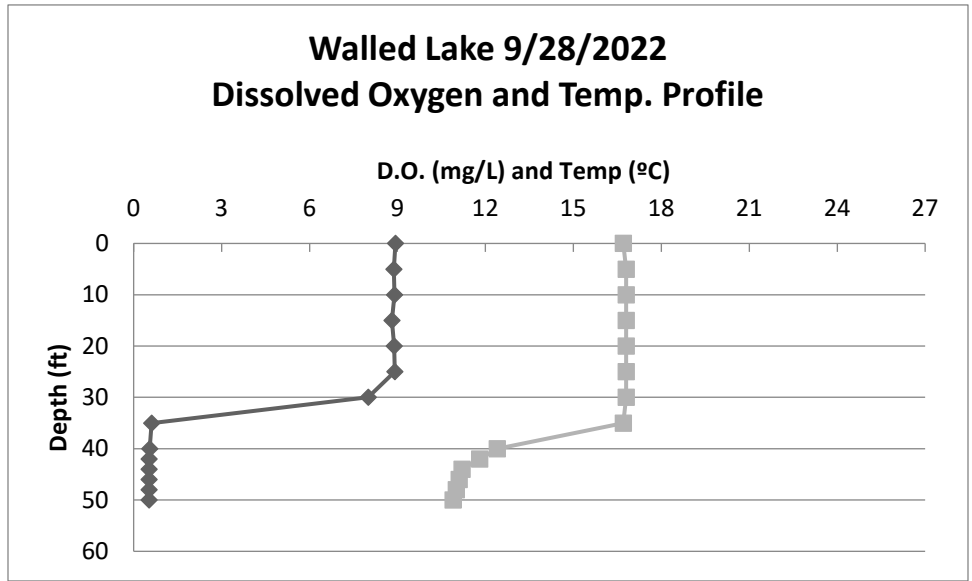
Date	5/4/2022			5/4/2022			5/4/2022			9/28/2022			9/28/2022			9/28/2022		
Station Number	1			2			3			1			2			3		
Temp (°C)	11.7	A		11.8	A		11.8	A		16.7	A		16.7	A		16.5	A	
Dissolved Oxygen (mg/L)	10.8			11.19			11.32			8.75			8.93			9.77		
Dissolved Oxygen (%saturation)	100.6	A		104.0	A		105.2	A		88.8	A		90.7	A		99.2	A	
Chlorophyll a (ug/L)	1.6	A		1.6	A		0.5	A		1.6	A		0.6	A		1.9	A	
Secchi Disk Depth (ft)	10.0	D		9.8	D		10.8	D		11.0	D		11.6	D		11.0	D	
Total Nitrate Nitrogen (ug/L)	<130	A		<130	A		<130	A		ND	A		ND	A		ND	A	
Alkalinity (mg/L)	130.0	A		130	A		130	A		100	A		100	A		100	A	
pH	8.0	A		8.19	A		8.08	A		7.84	A		7.93	A		7.90	A	
Conductivity (umhos/cm)	910.0	F		900	F		880	F		930	F		930	F		930	F	
Total Phosphorus (ug/L)	32.0	C		28	C		23	B		15	A		14	A		<8	A	
Overall Grade		B			B			B			B			B			B	

Scale:

Grade	Temp	Dissolved Oxygen	Chlorophyll α	Secchi Disk Depth	Total Nitrate Nitrogen	Alkalinity	pH	Conductivity	Total Phosphorus
A	0-26.5	85-115	0-2	>19	0-275	50-225	5.75-8.27	0-380	0-20
B	26.5-28.5	85-77; 115-122	2-3	19-16	275-360	50-35; 225-255	5.75-5.55; 8.27-8.47	380-590	20-28
C	28.5-30	77-69; 122-131	3-4	16-12	360-450	35-23; 255-280	5.55-5.33; 8.47-8.69	590-720	28-39
D	30-31.5	69-62; 131-140	4-5	12-9	450-540	23-17; 280-310	5.33-5.14; 8.69-8.88	720-800	39-46
F	>31.5	<62; >140	>5	<9	>540	<17; >310	<5.14; >8.88	>800	>46

Temp and D.O.:

Temp (°C)	D.O. (mg/L)	Depth (ft)
16.7	8.93	0
16.8	8.88	5
16.8	8.90	10
16.8	8.81	15
16.8	8.89	20
16.8	8.91	25
16.8	8.00	30
16.7	0.61	35
12.4	0.55	40
11.8	0.53	42
11.2	0.53	44
11.1	0.53	46
11.0	0.52	48
10.9	0.52	50

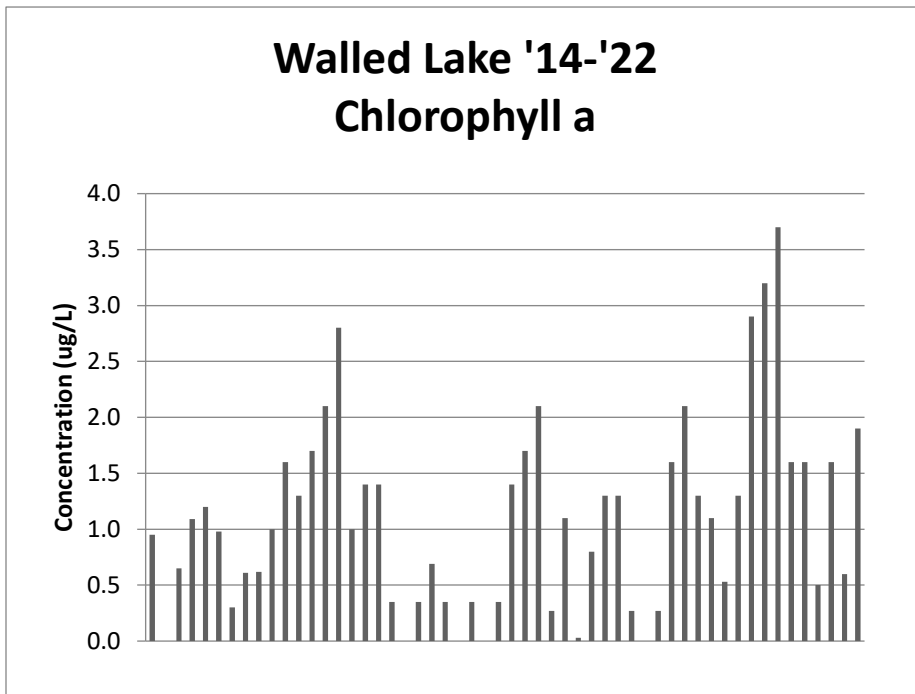
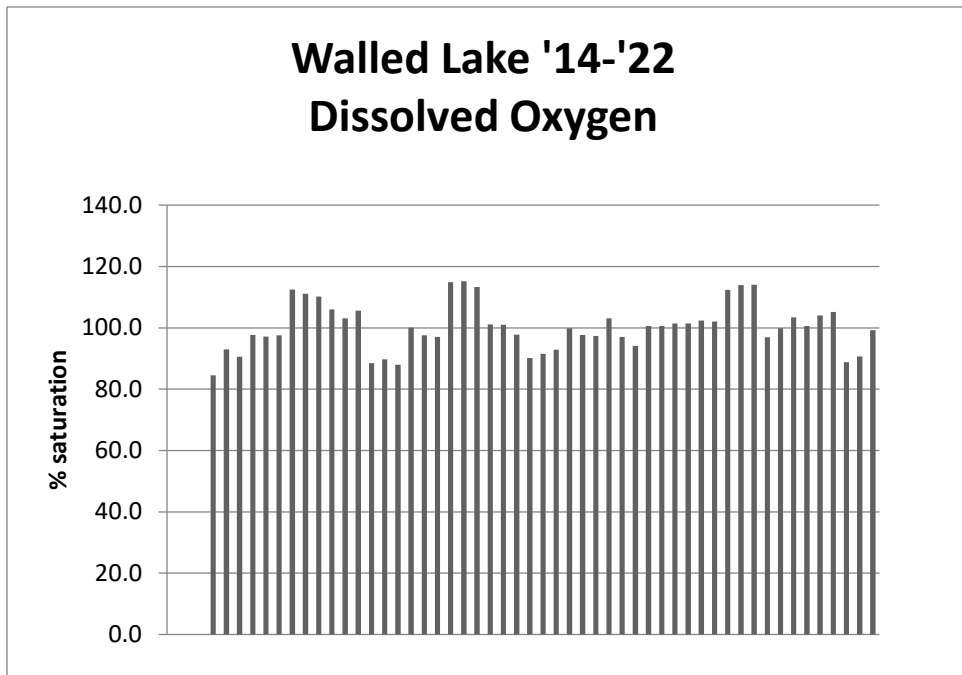


Matt Novotny

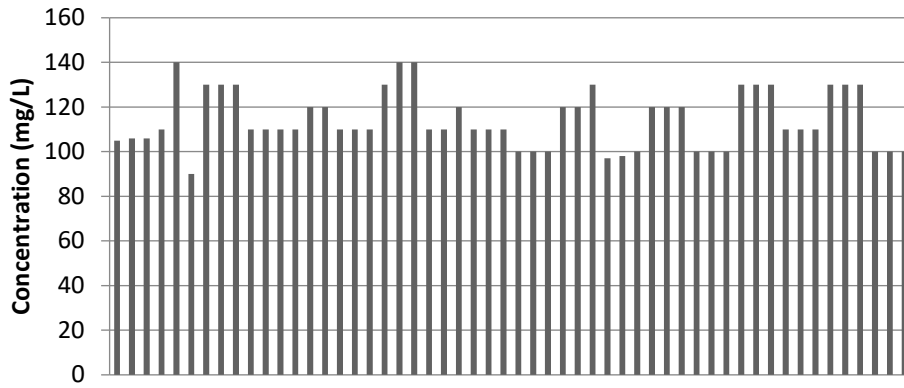
Matthew Novotny

Environmental Scientist

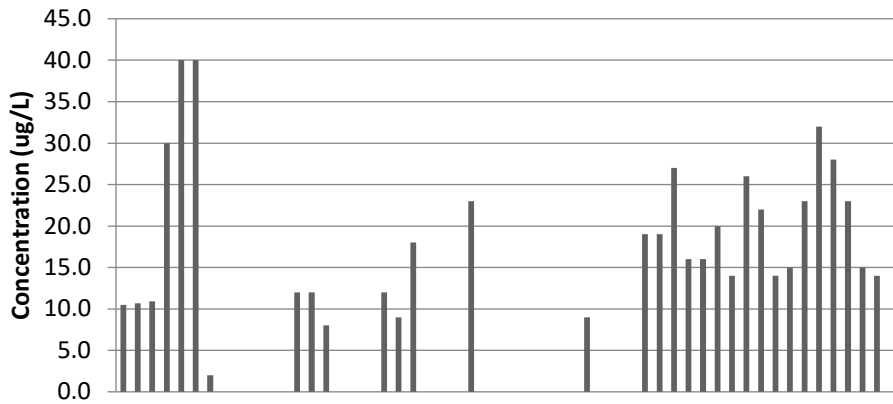
Historical Data:



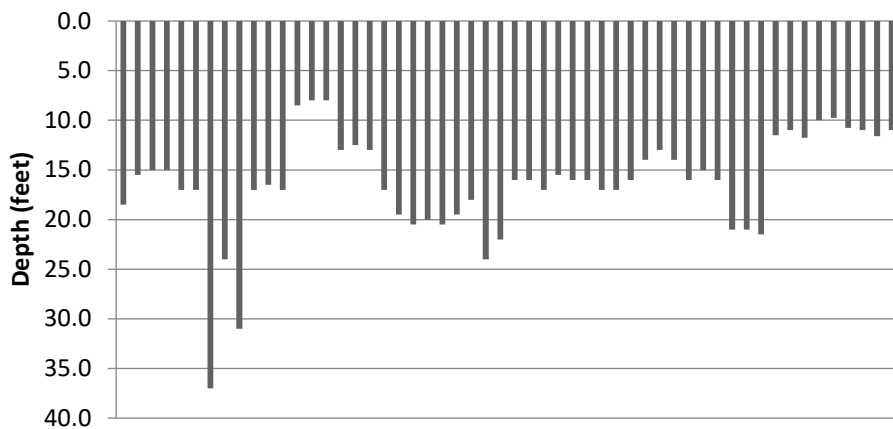
Walled Lake '14-'22 Alkalinity



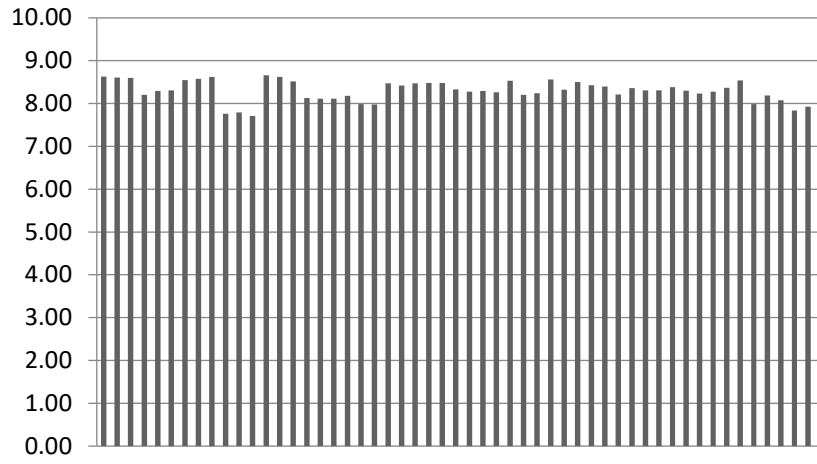
Walled Lake '14-'22 Phosphorus



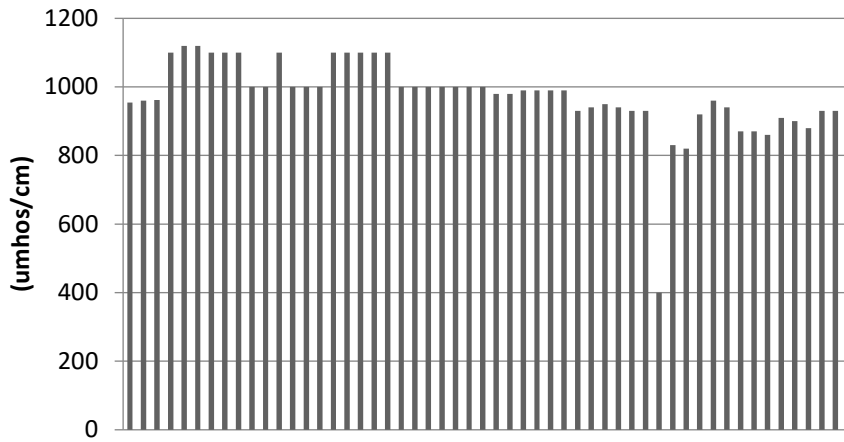
Walled Lake '14-'22 Secchi Disk Depth



Walled '14-'22 pH



Walled Lake '14-'22 Conductivity



Walled Lake Water Quality Data												
Date	Sample Station Number	Temperature (°C)	Dissolved Oxygen		Chlorophyll α (ug/L)	Secchi Disk Depth	Total Nitrate-N (ug/L)	Alkalinity (mg/L)	pH	Conductivity umhos per cm at 25 °C	Total Phosphorus (ug/L)	Grade
			(mg/L)	Percent Saturation								
6/5/2014	1	22.8	N/A	N/A	1.0	18.5	3.4	105	8.63	954	10.5	B
6/5/2014	2	22.2	N/A	N/A	N/A	15.5	3.7	106	8.61	960	10.7	B
6/5/2014	3	22.1	N/A	N/A	0.7	15.0	3.2	106	8.60	962	10.9	B
9/21/2014	1	17.7	7.99	84.6	1.1	15.0	<100	110	8.20	1100	30.0	B
9/21/2014	2	17.5	8.78	92.9	1.2	17.0	<100	140	8.29	1120	40.0	B
9/21/2014	3	17.3	8.74	90.6	1.0	17.0	<100	90	8.31	1120	40.0	B
5/20/2015	1	17.9	9.23	97.7	0.3	37	<60	130	8.55	1100	2	B
5/20/2015	2	17.7	9.18	97.1	0.61	24	<60	130	8.58	1100	<1	B
5/20/2015	3	17.9	9.22	97.6	0.62	31	<60	130	8.62	1100	<1	B
8/31/2015	1	24.5	9.5	112.5	1.0	17.0	<60	110.0	7.76	1000	<5	B
8/31/2015	2	23.7	9.3	111.1	1.6	16.5	<60	110.0	7.79	1000	<5	B
8/31/2015	3	23.4	9.4	110.2	1.3	17.0	<60	110.0	7.71	1100	<5	B
5/17/2016	1	14.7	10.67	106.0	1.7	8.5	<60	110.0	8.66	1000	12.0	B
5/17/2016	2	14.4	10.61	103.1	2.1	8.0	<60	120.0	8.62	1000	12.0	B
5/17/2016	3	14.8	10.63	105.6	2.8	8.0	<60	120.0	8.52	1000	8.0	B
9/29/2016	1	16.6	8.54	88.5	1	13.0	<60	110.0	8.13	1100.0	<9	B
9/29/2016	2	16.6	8.66	89.7	1.4	12.5	<60	110.0	8.11	1100.0	<9	B
9/29/2016	3	16.4	8.66	87.9	1.4	13.0	<60	110.0	8.11	1100.0	<9	B
5/11/2017	1	14.1	10.30	100.1	0.35	17.0	110.0	130.0	8.18	1100.0	12.0	B
5/11/2017	2	13.4	10.26	97.5	0.00	19.5	70.0	140.0	7.99	1100.0	9.0	A
5/11/2017	3	13.0	10.21	97.1	0.35	20.5	100.0	140.0	7.98	1000.0	18.0	A
9/21/2017	1	22.4	10.02	114.9	0.69	20.0	<60	110.0	8.47	1000.0	<8	B
9/21/2017	2	22.8	9.86	115.2	0.35	20.5	<60	110.0	8.42	1000.0	<8	B
9/21/2017	3	21.6	9.88	113.3	0.00	19.5	<60	120	8.47	1000	<8	B
6/11/2018	1	20.7	9	101.1	0.35	18	<80	110	8.48	1000	23.0	B
6/11/2018	2	20.7	8.99	101.0	0	24.0	<80	110	8.48	1000	<8	B
6/11/2018	3	20.6	8.70	97.8	0.35	22.0	<80	110	8.33	1000	<8	B
9/25/2018	1	20.1	8.18	90.2	1.4	16.0	<80	100	8.28	980	<8	B
9/25/2018	2	20.3	8.3	91.5	1.7	16.0	<80	100	8.29	980	<8	B
9/25/2018	3	20.4	8.42	92.8	2.1	17.0	<80	100	8.26	990	<8	B
5/14/2019	1	11.8	10.74	99.8	0.27	15.5	<130	120	8.53	990	<8	B
5/14/2019	2	11.9	10.51	97.7	1.1	16	<130	120	8.2	990	<8	B
5/14/2019	3	11.8	10.47	97.3	0.03	16	<130	130	8.24	990	9.0	B
10/1/2019	1	20.6	9.17	103.0	0.8	17	<130	97	8.56	930	<8	B
10/1/2019	2	20.9	8.64	97.1	1.3	17	<130	98	8.32	940	<8	B
10/1/2019	3	20.4	8.54	94.2	1.3	16	<130	100	8.5	950	<8	B
5/11/2020	1	10.4	11.33	100.5	0.27	14.0	<130	120	8.43	940	19	B
5/11/2020	2	10.4	11.34	100.6	0	13.0	<130	120	8.40	930	19	B
5/11/2020	3	10.3	11.43	101.4	0.27	14.0	<130	120	8.21	930	27	B
9/22/2020	1	18.7	9.39	101.4	1.6	16.0	<130	100	8.36	400	16	A
9/22/2020	2	18.7	9.48	102.4	2.1	15.0	<130	100	8.31	830	16	B
9/22/2020	3	18.8	9.45	102.1	1.3	16.0	<130	100	8.31	820	20	B
5/27/2021	1	22.5	9.62	112.4	1.1	21.00	ND	130.0	8.4	920.0	14.0	B
5/27/2021	2	22.1	9.93	113.9	0.5	21.00	ND	130.0	8.3	960.0	26.0	B
5/27/2021	3	22.3	9.94	114.0	1.3	21.50	ND	130.0	8.2	940.0	22.0	B
9/27/2021	1	20.1	8.79	96.9	2.9	11.50	ND	110.0	8.3	870.0	14.0	B
9/27/2021	2	19.4	9.24	99.8	3.2	11.00	ND	110.0	8.4	870.0	15.0	B
9/27/2021	3	19.9	9.38	103.4	3.7	11.75	16.0	110.0	8.5	860.0	23.0	B
5/4/2022	1	11.7	10.8	100.6	1.6	10.0	<130	130	7.99	910	32	B
5/4/2022	2	11.8	11.2	104.0	1.6	9.75	<130	130	8.19	900	28	B
5/4/2022	3	11.8	11.3	105.2	0.5	10.75	<130	130	8.08	880	23	B
9/28/2022	1	16.7	8.8	88.8	1.6	11.0	ND	100.0	7.8	930.0	15.0	B
9/29/2022	2	16.7	8.9	90.7	0.6	11.6	ND	100.0	7.9	930.0	14.0	B
9/30/2022	3	16.5	9.8	99.2	1.9	11.0	ND	100.0	7.9	930.0	<8	C

Parameter Descriptions:

TEMPERATURE AND DISSOLVED OXYGEN

Temperature exerts a wide variety of influences on most lakes, such as the separation of layers of water (stratification), solubility of gases, and biological activity.

Dissolved oxygen is the parameter most often selected by lake water quality scientists as being important. Besides providing oxygen for aquatic organisms in natural lakes, dissolved oxygen is involved in phenomena such as phosphorus precipitation to, and release from, the lake bottom sediments and decomposition of organic material in the lake.

Low dissolved oxygen concentrations (below 4 milligrams per liter) are generally insufficient to support fish life. In most Michigan lakes, there is no dissolved oxygen below the thermocline in late summer. Some experts like to see some dissolved oxygen in the bottom water of a lake, even if it is almost zero. This is because as long as there is some dissolved oxygen in the water at the bottom of the lake, phosphorus precipitated by iron to the bottom sediments will remain there. Once a lake runs out of dissolved oxygen in the water at the bottom iron comes back into solution. When that happens, it releases the phosphorus back into the water. This can cause additional algae to grow when the lake mixes.

DISSOLVED OXYGEN, PERCENT SATURATION

Because the amount of dissolved oxygen a water can hold is temperature dependent with cold water holding more than warm water, dissolved oxygen saturation is often a better way to determine if oxygen supplies are adequate. The best is between 90 and 110 percent.

CHLOROPHYLL α

Chlorophyll α is used by lake scientists as a measure of the biological productivity of the water. Generally, the lower the chlorophyll α , the better. High concentrations of chlorophyll α are indicative of an algal bloom in the lake, an indication of poor lake water quality. The highest surface chlorophyll α concentration found by Wallace Fusilier (Water Quality Investigators, WQI) in a

Michigan lake was 216 micrograms per liter. Best is below one microgram per liter.

SECCHI DISK TRANSPARENCY (originally Secchi's disk)

In 1865, Angelo Secchi, the Pope's astronomer in Rome, Italy devised a 20-centimeter (8 inch) white disk for studying the transparency of the water in the Mediterranean Sea. Later an American limnologist (lake scientist) named Whipple divided the disk into black and white quadrants which many are familiar with today.

The Secchi disk transparency is a lake test widely used and accepted by limnologists. The experts generally felt the greater the Secchi disk depth, the better quality the water. However, one Canadian scientist pointed out acid lakes have very deep Secchi disk readings. (Would you consider a very clear lake a good quality lake, even if it had no fish in it? It would be almost like a swimming pool.) Most lakes in southeast Michigan have Secchi disk transparencies of less than ten feet. On the other hand, Elizabeth Lake in Oakland County had 34 foot Secchi disk readings in summer 1996, evidently caused by a zebra mussel invasion a couple of years earlier.

Most limnology texts recommend the following: to take a Secchi disk transparency reading, lower the disk into the water on the shaded side of an anchored boat to a point where it disappears. Then raise it to a point where it's visible. The average of these two readings is the Secchi disk transparency depth.

Secchi disk measurements should be taken between 10 AM and 4 PM. Rough water will give slightly shallower readings than smooth water. Sunny days will give slightly deeper readings than cloudy days. However, roughness influences the visibility of the disk more than sunny or cloudy days.

TOTAL PHOSPHORUS

Although there are several forms of phosphorus found in lakes, the experts selected total phosphorus as being most important. This is probably because all forms of phosphorus can be converted to the other forms. Currently, most lake scientists feel phosphorus, which is measured in parts per billion (1 part per

billion is one second in 31 years) or micrograms per liter (ug/L), is the one nutrient which might be controlled. If its addition to lake water could be limited, the lake might not become covered with the algal communities so often found in eutrophic lakes.

Based on WQI's studies of many Michigan inland lakes, they've found many lakes were phosphorus limited in spring (so don't add phosphorus) and nitrate limited in summer (so don't add nitrogen).

10 parts per billion is considered a low concentration of phosphorus in a lake and 50 parts per billion is considered a high value in a lake by many limnologists.

NITRATE NITROGEN

Nitrate, also measured in the parts per billion range, has traditionally been considered by lake scientists to be a limiting nutrient. The experts felt any concentration below 200 parts per billion was excellent in terms of lake water quality. The highest value found by Fusilier was 48,000 parts per billion in an Ottawa County river which flowed into Lake Macatawa in Holland, Michigan

On the other hand, WQI has studied hundreds of Michigan inland lakes, and many times they find them nitrate limited (very low nitrate nitrogen concentrations), especially in summer.

WQI was finding many lakes have lower nitrate nitrogen concentrations in summer than in spring. This is probably due to two factors. First, plants and algae growing in lakes as water warms can remove nitrates from the water column. And second, bacterial denitrification (where nitrates are converted to nitrogen gas by bacteria) also occurs at a much faster rate in summer when the water is warmer.

Generally limnologists feel optimal nitrate nitrogen concentrations (which encourage maximum plant and algal growth) are about 10-20 times higher than phosphorus concentrations. The reason more nitrogen than phosphorus is needed is because nitrogen is one of the chemicals used in the production of plant proteins, while phosphorus is used in the transfer of energy, but is not used to create plant material. If the nitrate concentration is less than 10-20 times the phosphorus concentration, the lake is considered nitrogen limited. If the nitrate

concentration is higher than 10-20 times the phosphorus concentration, the lake is considered phosphorus limited.

TOTAL ALKALINITY

Alkalinity is a measure of the ability of the water to absorb acids (or bases) without changing the hydrogen ion concentration (pH). It is, in effect, a chemical sponge. In most Michigan lakes, alkalinity is due to the presence of carbonates and bicarbonates which were introduced into the lake from ground water or streams which flow into the lake. In lower Michigan, acidification of most lakes should not be a problem because of the high alkalinity concentrations.

HYDROGEN ION CONCENTRATION (pH)

pH has traditionally been a measure of water quality. Today it is an excellent indicator of the effects of acid rain on lakes. About 99% of the rain events in southeastern Michigan are below a pH of 5.6 and are thus considered acid. However, there seems to be no lakes in southern Michigan which are being affected by acid rain. Most lakes have pH values between 7.5 and 9.0.

SPECIFIC CONDUCTIVITY

Conductivity, measured with a meter, detects the capacity of a water to conduct an electric current. More importantly however, it measures the amount of materials dissolved in the water, since only dissolved materials will permit an electric current to flow. Theoretically, pure water will not conduct an electric current. It is the perception of the experts that poor quality water has more dissolved materials than does good quality water

2021

Date	5/27/2021		5/27/2021		5/27/2021	
Station Number	1		2		3	
Temp (°C)	22.5	A	22.1	A	22.3	A
Dissolved Oxygen (mg/L)	9.6		9.93		9.94	
Dissolved Oxygen (%saturation)	112.4	A	113.9	A	114.0	A
Chlorophyll a (ug/L)	1.1	A	0.5	A	1.3	A
Secchi Disk Depth (ft)	21.0	A	21.0	A	21.5	A
Total Nitrate Nitrogen (ug/L)	ND	A	ND	A	ND	A
Alkalinity (mg/L)	130.0	A	130	A	130	A
pH	8.4	B	8.30	B	8.23	A
Conductivity (umhos/cm)	920.0	F	960	F	940	F
Total Phosphorus (ug/L)	14.0	A	26	B	22	B
Overall Grade		B		B		B

2022

Date	5/4/2022		5/4/2022		5/4/2022	
Station Number	1		2		3	
Temp (°C)	11.7	A	11.8	A	11.8	A
Dissolved Oxygen (mg/L)	10.8		11.19		11.32	
Dissolved Oxygen (%saturation)	100.6	A	104.0	A	105.2	A
Chlorophyll a (ug/L)	1.6	A	1.6	A	0.5	A
Secchi Disk Depth (ft)	10.0	D	9.8	D	10.8	D
Total Nitrate Nitrogen (ug/L)	<130	A	<130	A	<130	A
Alkalinity (mg/L)	130.0	A	130	A	130	A
pH	8.0	A	8.19	A	8.08	A
Conductivity (umhos/cm)	910.0	F	900	F	880	F
Total Phosphorus (ug/L)	32.0	C	28	C	23	B
Overall Grade		B		B		B

2023

Date	5/10/2023		5/10/2023		5/10/2023	
Station Number	1		2		3	
Temp (°C)	14.6	A	14.3	A	14.6	A
Dissolved Oxygen (mg/L)	12.3		12.39		12.17	
Dissolved Oxygen (%saturation)	122.3	C	120.4	B	120.9	B
Chlorophyll a (ug/L)	0.3	A	0.0	A	0.0	A
Secchi Disk Depth (ft)	13.0	C	12.0	D	13.0	C
Total Nitrate Nitrogen (ug/L)	<130	A	<130	A	<130	A
Alkalinity (mg/L)	130.0	A	130	A	130	A
pH	8.8	D	8.76	D	8.59	C
Conductivity (umhos/cm)	970.0	F	950	F	940	F
Total Phosphorus (ug/L)	14.0	A	10	A	13	A
Overall Grade		B		B		B

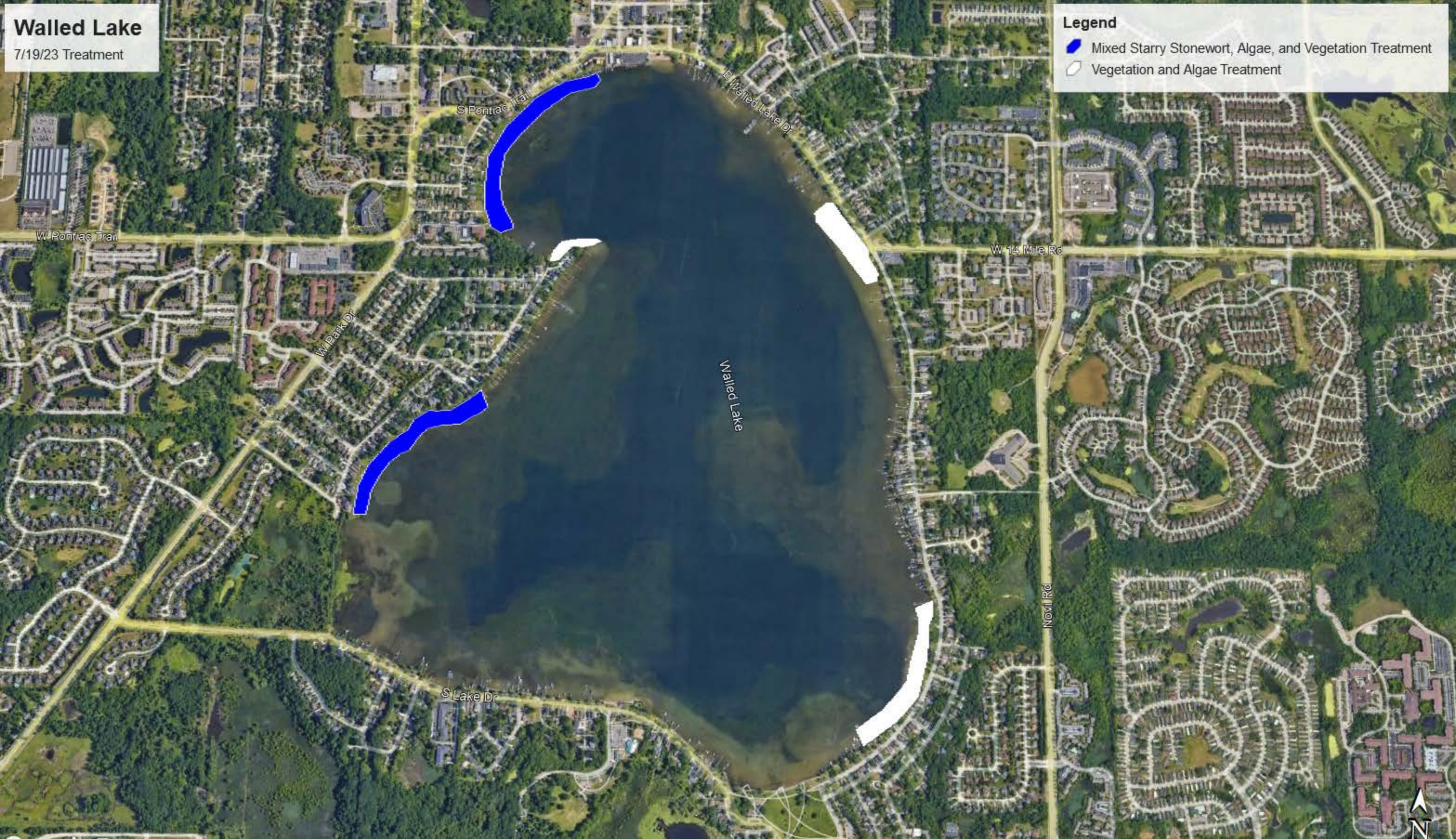
Walled Lake

6/7/23 Treatment

Legend

- Eurasian Watermilfoil and Curly Leaf Pondweed Treatment







Walled Lake

7/19/23 Treatment

Legend

-  Mixed Starry Stonewort, Algae, and Vegetation Treatment
-  Vegetation and Algae Treatment

S Pontiac Trail

E Walled Lake Dr

W Pontiac Trail

W 14 Mile Rd

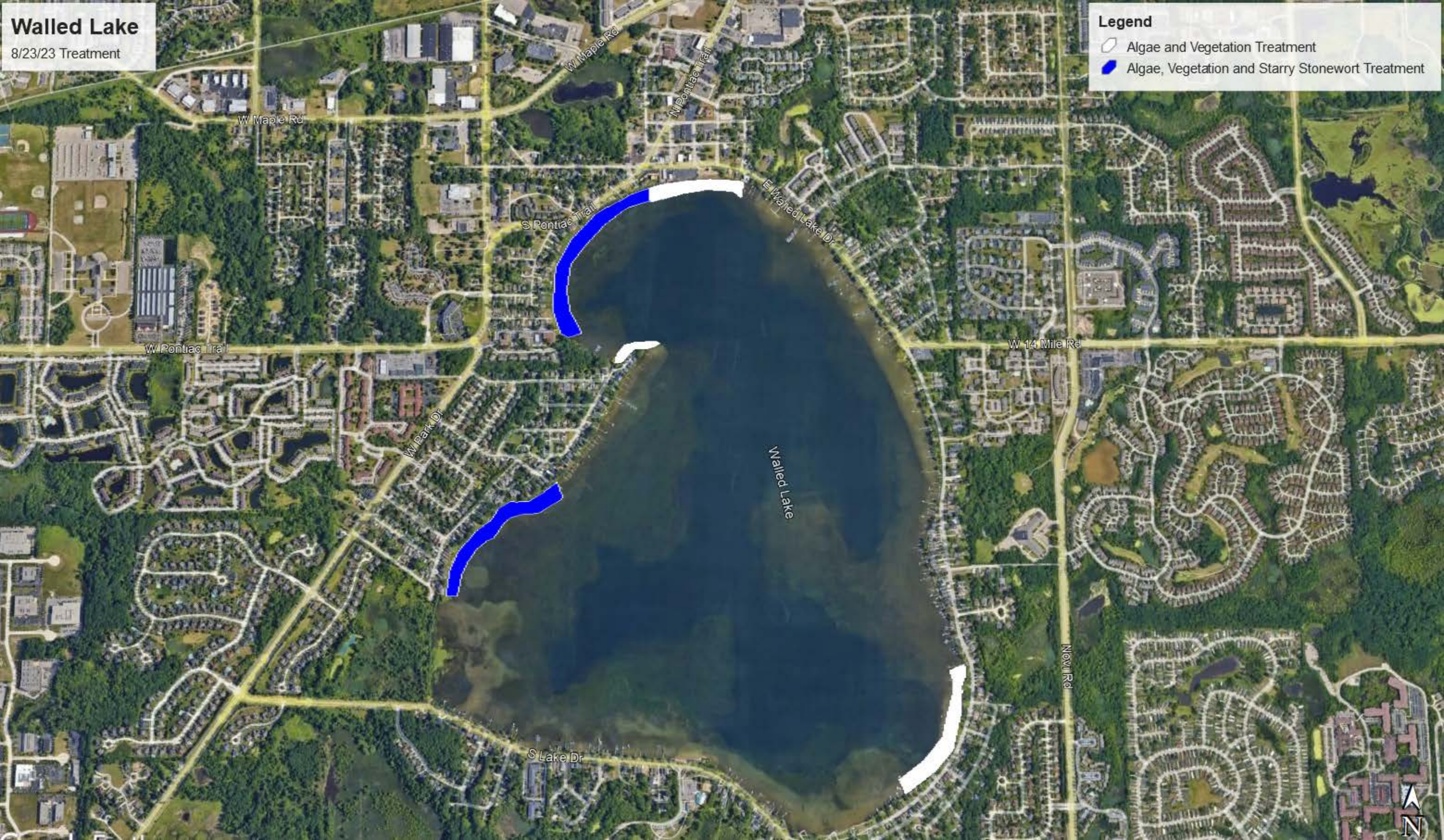
W Park Dr

Walled Lake

Nowl Rd

S Lake Dr





Walled Lake

8/23/23 Treatment

Legend

- Algae and Vegetation Treatment
- Algae, Vegetation and Starry Stonewort Treatment

Walled Lake

W Maple Rd

W Maple Rd

N Pontiac Trail

S Pontiac Trail

E Walled Lake Dr

W Pontiac Trail

W 14 Mile Rd

W Park Dr

Nowi Rd

S Lake Dr





3088 Hottis Rd. Hale, MI 48739 Hale: 989.728.2200 Clare: 989.386.0600 Fax: 989.516.5900

Walled Lake

Lake Treatment Budgetary Information – Treatment Year 2024

In 2022, we believe utilizing the herbicide ProcellaCOR worked great for the systemic treatment of Eurasian Watermilfoil. Because of that treatment, the total acreage of Eurasian Watermilfoil treated in 2023 was greatly reduced. We hope to see a similar trend with the early survey in 2024. Despite that, we would still like to plan for the chance that Eurasian Watermilfoil will reestablish itself in other areas not observed in 2023 and thus increase the total acreage needed to be treated. That being said, we plan on utilizing the herbicide mixture of ProcellaCOR EC and Diquat Dibromide for treatment of Eurasian Watermilfoil in 2024.

Curly leaf pondweed treatment will occur alongside the Eurasian Watermilfoil treatment. What we observed in 2023 was that areas that previously contained Eurasian Watermilfoil in 2022, but did not in 2023, contained curly leaf pondweed instead. This is why the total acreage treated in 2023 was similar to 2022.

The other treatments in 2024 should follow what was previously seen in prior years. Starry Stonewort and other nuisance vegetation will be treated as necessary in July and August.

While we suggest certain lake management services (listed below) for 2024, please note that there are other services we can perform for Walled Lake. Those services and their associated prices can be found in the 2022 Lake Management Proposal for Walled Lake. If you would like us to perform anything else, please let us know.

The following is our recommended services and treatment information for 2024.

Lake Management Services

- Permit Application = \$1,600
- Spring Visual Survey = \$525.15
- Water Quality Sampling (3 sites) @ \$503.93 each = \$1,511.79
- Late Summer Vegetation Survey = \$525.15
- Fall Lakes Management Report/Recommendations = \$822.20
- **Total Lake Management Services 2024** = **\$4,984.29**

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Treatment Information

- May Treatment (or combination of early treatments)
 - 80 acres Systemic Hybrid Watermilfoil Treatment with ProcellaCOR EC @ \$694.89/acre = \$55,591.20
 - 25 acres Curly Leaf Pondweed Treatment Diquat Dibromide @ \$185.66/acre = \$4,641.50
 - 80 acres of Algae Biowash for Eurasian Watermilfoil @ \$22.99/acre = \$1,839.20
 - **Total May Treatment = \$62,071.90**
- July Treatment
 - 10 acres Starry Stonewort Treatment @ \$312.97/acre = \$3,129.70
 - 15 acres Vegetation Control with Diquat Dibromide @ \$185.66/acre = \$2,784.90
 - 10 acres Vegetation Control with Endothall @ \$206.88/acre = \$2,068.80
 - 15 acres Algae Control with Chelated Copper @ \$68.96/acre = \$1,034.40
 - **Total July Treatment = \$9,017.80**
- August Treatment
 - 10 acres Starry Stonewort Treatment @ \$312.97/acre = \$3,129.70
 - 15 acres Vegetation Control with Diquat Dibromide @ \$185.66/acre = \$2,784.90
 - 10 acres Vegetation Control with Endothall @ \$206.88/acre = \$2,068.80
 - 15 acres Algae Control with Chelated Copper @ \$68.96/acre = \$1,034.40
 - **Total August Treatment = \$9,017.80**

- **Total Estimated Treatments for 2024 = \$80,107.50**

- **Total Services Cost for 2024 (Treatments and Services) = \$85,091.79**

Please keep in mind that these amounts are based on prior years and expectations for this year based on treatments and surveys done in over the last few years.

The following restrictions and information are only for treated areas.

- May Restrictions
 - Swimming – 1 Day
 - All other water use – 5-14 days
- July Restrictions
 - Swimming – 1 Day
 - All other water use – 5 days
- August Restrictions
 - Swimming – 1 Day
 - All other water use – 5 days

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September 8, 2023

Walled Lake Improvement Board
Attn: Ms. Megan Mikus & Ms. Tina Miller
26300 Lee BeGole Drive
Novi, MI 48375



Subject: 2024 Walled Lake Management Contract

Savin Lake Services wishes to confirm that the Walled Lake Improvement Board desires to continue with Savin Lake Services for the management of Walled Lake in 2024.

Please sign below indicating that you are re-affirming the current contract (2022 Walled Lake Management Proposal).

If you have any questions – please feel free to contact us at any time.

Sincerely,

Guy Savin – President
Savin Lake Services

Ms. Megan Mikus – Walled Lake Improvement Board

Date

Ms. Tina Miller – Walled Lake Improvement Board

Date



WALLED LAKE
2022 Management Proposal

Prepared for:
The Walled Lake Improvement Board

3088 Hottis Road
Hale, MI 48739
989-728-2200
www.lakeandpond.com



September 16, 2021

Walled Lake Improvement Board
Attn: Ms. Megan Mikkus & Ms. Tina Miller
26300 Lee BeGole Drive
Novi, MI 48375



Subject: 2021 Walled Lake Aquatic Weed Control Proposal

Savin Lake Services Inc. has a sincere interest in remaining the lakes management services provider for Walled Lake. Savin Lake Services is a fully integrated lakes management company offering multiple aquatic nuisance plant control methods. Savin Lakes Services Inc. provides mechanical plant removal (harvesting), and aquatic herbicide control options for our customers. We also provide lake consulting services, whole lake aeration systems, phosphorus mitigation solutions, and lake dredging. Savin Lake Services Inc. has been servicing Michigan's lakes and ponds for over (25) years. We currently provide our services on over (75) lakes & (225) ponds in Michigan. The lakes that we currently have under contract range in size from 10 acres to 2,500 acres.

Savin Lake Services is an A+ Accredited Member of the Better Business Bureau of Michigan. We are also members of the Michigan Lakes & Streams Association, the Midwest Aquatic Plant Management Society, the Michigan Aquatic Managers Association, and the Aquatic Ecosystem Restoration Foundation.

If selected as your lakes management services provider Savin Lake Services will implement an integrated plant management plan to manage Walled Lake safely and effectively. We will continuously assess and study the ecology of the lake to prevent and identify any possible threats. Then evaluate which physical(mechanical), herbicide, and/or biological control method will be the most effective, economical, and feasible option that will eliminate or reduce the threat and positively impact Walled Lake's ecosystem.

Savin Lake Services is pleased to offer the following Proposal, Company Profile, and References, for your consideration. If you have any questions regarding the following proposal, please feel free to contact us at any time.

Sincerely,

Paul Barber – Operations Manager
Savin Lake Services Inc.



PROPOSED LAKE MANAGEMENT PLAN FOR WALLED LAKE

Based on our previous involvement on Walled Lake, Savin Lake Services Inc recommends implementing the following management approach:

- ❖ **Routine monitoring** - Savin Lake Services Inc. will closely monitor the lake by conducting routine vegetation surveys and water quality studies. Conducting routine surveys and studies will result in early detection of potential threats to the lake. Early detection of a potential threat gives us the ability to be proactive instead of reactive in our management approach.
- ❖ **Invasive Plant Management** - Invasive plant communities are a threat to the ecology of a lake. Invasive plants outcompete the desired native plants and greatly impact fisheries habitat and spawning areas, which results in reduced aquatic plant and animal diversity. Invasive plant presence in your lake can also reduce property values and restrict fishing, boating, and other recreational opportunities if not effectively managed. Early detection and rapid response are key to preventing the negative ecological and economic impacts these plant species cause to you and your lake.
 - During previous lake assessment the aquatic invasive plant species detected were Curly Leaf Pondweed, Eurasian/Hybrid Watermilfoil, and Starry Stonewort. These species were found along the drop offs throughout the lake and appeared to be very well established in many areas. Currently, these plants pose the greatest threat to Walled Lake. Savin Lake Services will aggressively attack the invasive plant communities that exist in Walled Lake with aquatic herbicides. Herbicide management is currently the most efficient and cost-effective way to manage invasive plant communities.
 - Utilization of selective systemic herbicides – Targeted plant communities will be managed utilizing selective and systemic herbicides whenever possible.
 - By utilizing these types of herbicides, we can treat the entire plant of an undesirable targeted invasive species and leave the non-targeted indigenous species unharmed. Plants treated systemically will not regrow, and by utilizing selective herbicides, desired indigenous plants are given the opportunity to thrive and outcompete the invasive plants. This method will reduce densities or areas Invasive plants can exist and reduces the risk of new infestations or re-infestations of invasive plants.



- ❖ **Indigenous (Native) Plant Management** – Indigenous plants play a key role in having a healthy and diverse aquatic ecosystem. These plants produce oxygen and provide food sources for other aquatic life, provide suitable fish habitat for fisheries to thrive and cover for prey fish. They also absorb nutrients, stabilize bottom sediments, clarify the water column, and aid in reducing shoreline soil erosion. Due to all the beneficial contributions they provide to the lake, treatment of these type plants should always be kept to a minimum and only managed if they reach a nuisance level that is detrimentally impacting the recreational use of the lake.
 - Savin Lake Services Inc. will utilize herbicides/algacides to control nuisance indigenous plant and alga communities where they are directly impeding recreation use in the near shore developed areas of the lake. If indigenous plants reach a nuisance level in offshore or undeveloped areas of the lake, we will integrate mechanical vegetation harvesting to remove the nuisance vegetation.

RECOMMENDED LAKE SURVEYS AND STUDIES

Water Quality Monitoring Program – Water quality monitoring provides the basis for lake management. Water quality monitoring helps us identify and stop threats within the lake, determine overall condition of the lake, and what treatment actions need to be taken.

We provide a full-service program that will test for Secchi disk, temperature, phosphorus, dissolved oxygen, conductivity, total dissolved solids, pH, and alkalinity. Water quality testing is conducted twice a year. Samples are taken and parameters are tested in the spring and then again in the fall. Savin Lake Services recommends that (3) sites be tested on your lake.

Spring Visual Survey – This survey is to assess plant and algae growth, locate areas containing early season invasive plant communities (Curly Leaf Pondweed & Hybrid/Eurasian Watermilfoil), delineate treatment areas, and determine resources required and ideal timeframe for initial treatment.

Mid-Summer/Post Treatment Survey – This survey is to assess plant and algae growth and evaluate the efficacy of initial treatment. During this survey we will also locate areas containing invasive plant communities (Starry Stonewort or Hybrid/Eurasian Watermilfoil) that were not present during initial application and identify areas containing prolific algae growth or nuisance natives that may require management.

Fall AVAS Survey – This survey is to assess plant and algae growth, identify plant diversity/species richness, determine if any areas of the lake contain any new infestations or regrowth of non-native plant communities, and determine if any additional treatment/management is required for the season. We also inspect the vegetation growth in all previous treatment areas and evaluate if any changes are required in our management approach



RECOMMENDED MANAGEMENT TIMELINE

Winter / Spring - Savin Lake Services will apply for the required annual EGLE permit.

May - A spring BioBase survey of the lake will be completed to determine areas containing Hybrid/Eurasian Watermilfoils and/or Curly Leaf Pondweed that require treatment.

May/Early June – Systemic Milfoil treatment and herbicide treatment for Curly Leaf Pondweed. Treatment date will vary from mid-May to early June depending on the weed growth and water temperature. We will conduct our initial herbicide application utilizing selective systemic herbicides to control areas with Milfoil infestations. We will also utilize contact herbicides like Diquat Dibromide and Aquathol K to manage any areas containing Curly Leaf Pondweed.

Late June: Aquatic herbicide treatment in the near shore developed areas for algae and nuisance native plants will take place (if necessary). Savin Lake Services will utilize algaecides/herbicides to manage various nuisance native plant communities and algae in the near shore developed areas that have reached the nuisance threshold. Treatment will be scheduled so that the swimming restrictions will not impact holidays or weekends.

July: A mid-summer/post treatment survey and Starry Stonewort treatment will be conducted. This survey will be to check the efficacy of treatments and identify any other areas of the lake that may require treatment. We will also conduct an herbicide application in July for Starry Stonewort and any remaining areas of concern found during survey.

August: We will complete another herbicide application to manage any areas of concern containing invasive or nuisance native plant communities (if necessary). Savin Lake Services will utilize algaecides and contact herbicides to control any invasive plants and manage nuisance natives and algae in near shore areas and our vegetation harvesters to manage offshore natives and reduce Starry Stonewort biomass (if necessary).

September: A fall AVAS survey will take place to identify plant diversity/species richness, plant densities and determine if any areas of the lake contain any new infestations or regrowth of non-native plant communities, we will also survey all previous treatment areas for efficacy and evaluate if any changes in our management approach are required

Fall: Savin Lake Services will issue a Fall Lakes Management Summary containing treatment reports, AVAS Survey results, and a Lake Management Plan and recommendations for the following treatment season



RECOMMENDED HERBICIDES TO BE UTILIZED

Savin Lake Services anticipates utilizing the following aquatic herbicides on Walled Lake:

2,4 – D Ester (Navigate) – an aquatically labeled herbicide in a granular formulation for systemic management of invasive Watermilfoils.

ProcellaCOR EC- an aquatically labeled herbicide for systemic management of invasive Watermilfoils.

Diquat Dibromide - an aquatically labeled broad spectrum contact herbicide for management of various milfoils & pondweeds.

Aquathol K – an aquatically labeled broad spectrum contact herbicide for management of various milfoils & pondweeds.

Hydrothol 191 – an aquatically labeled contact herbicide/algaecide that provides for management of various pondweeds and Macroalgae like Starry Stonewort.

Copper Sulfate – an aquatically labeled algaecide for management of algae and macroalgae.

Citrine Plus – an aquatically labeled algaecide in a Chelated Copper formulation for management of algae and macroalgae.

Cygnat Plus – an additive that promotes efficacy of treatments.



PROPOSED FEES:

The below pricing is based on the indicated application rate for each product listed. The customer agrees that the unit prices named will be utilized for billing. Unit price adjustments shall be proportional to the unit adjustments in dosage (for example if 2,4-D Ester is utilized at 150 lbs. per acre then the billed rate will be 50% higher than the below quoted unit price). Prices for treatment and or harvesting of aquatic vegetation on Walled Lake will be as follows:

Systemic Herbicides

- | | |
|--|------------------------|
| 1. 2, 4-D Ester @ 100 lbs./acre for systemic milfoil control | \$ 525.00 per acre |
| 2. Triclopyr Granular @ 120 lbs. / acre | \$ 595.00 per acre |
| 3. Triclopyr Liquid - (like Renovate 3) @2.5 gals / acre | \$ 315.00 per acre |
| 4. Sonar A.S. – price per gallon (6 ppb) | \$ 2,275.00 per gallon |
| 5. ProcellaCOR EC | \$ 80.00 per PDU |

Contact Herbicides

- | | |
|--|--------------------|
| 6. Diquat Dibromide - Non-native plants @ 1 gal / acre | \$ 175.00 per acre |
| 7. Diquat Dibromide - Native plants @ 2 gal / acre | \$ 245.00 per acre |
| 8. Diquat Dibromide & Aquathol K combo @ 1 gal / acre | \$ 280.00 per acre |
| 9. Aquathol K / Hydrothol 191 @ 1 gal / acre | \$ 195.00 per acre |
| 10. Endothal's @ 2 gals / acre | \$ 285.00 per acre |
| 11. Flumioxazin - Clipper (200 ppb) | \$ 350.00 per acre |
| 12. Flumioxazin - Clipper- (100 ppb) + Diquat | \$ 310.00 per acre |
| 13. Nautique for Wild Celery @ 7.5 gal / Acre | \$ 415.00 per acre |
| 14. Harpoon Granular @ 240 lbs. / acre - Wild Celery | \$ 695.00 per acre |

Algaecides

- | | |
|---|--------------------|
| 15. Algae – for Planktonic or Filamentous | \$ 55.00 per acre |
| 16. Algae – Max Copper Sulfate Rates for Chara or SSW 4.4 lbs./acre ft. | \$ 70.00 per acre |
| 17. Algae – Chelated Copper (like Captain / Cutrine Plus) 1 gal / acre | \$ 65.00 per acre |
| 18. Copper Sulfate/Chelated Copper + Hydrothol 191 combo - Starry Stonewort | \$ 295.00 per acre |

Emergent Plant Control

- | | |
|--|----------------------|
| 19. Glyphosate - Lily pads, Cattails, Purple Loosestrife | \$ 65.00 per 40'x40' |
|--|----------------------|

Bacterial Augmentation

- | | |
|--|--------------------|
| 20. Mukk Busster® Biological/Enzyme Muck Control | \$ 275.00 per acre |
|--|--------------------|

Vegetation Harvesting

- | | |
|--|--------------------|
| 21. Mechanical Harvesting of Nuisance Natives (minimum 30 acres) | \$ 475.00 per acre |
| 22. Mechanical Harvesting of Starry Stonewort (mnnimum 30 acres) | \$ 575.00 per acre |

Lake Surveys and Studies

- | | |
|---|------------------------|
| 23. Water Quality Monitoring Program (Per site each year) | \$ 475.00 per site |
| 24. Visual Spring & Fall Plant Surveys | \$ 495.00 per survey |
| 25. AVAS Plant Surveys | \$ 995.00 per survey |
| 26. ciBioBase Survey (Vegetation Density, Bottom Hardness & Depth Contours) | \$ 3,775.00 per survey |

Miscellaneous

- | | |
|---|----------------------|
| 27. Fall Lake Management Summary Report | \$ 775.00 per report |
| 28. Yearly Michigan EGLE Permit fee | \$ 1,500.00 per year |

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SAVIN LAKE SERVICES RECOMMENDED MANAGEMENT QUOTE:

Savin Lake Services recommends an annual budget of \$110,000.00 for the management of Walled Lake. These funds would be used for but not limited to include all required treatments for native and non-native plant communities, algae treatments, vegetation harvesting, surveys/reports, water quality testing, and the annual EGLE permit fee.

Please keep in mind that these are approximate numbers based on treatment records in the past. There are many variables in a lakes ecosystem that can change from year to year that make it hard to give an exact number. These recommendations are provided to assist in establishing an annual budget for the lake's management. It is important to note that Savin Lake Services is willing to work within any budget provided. We will only recommend and manage what we feel is in the best interest of the overall health of the lake and make it more desirable for use by the riparian owners. Our goal is to keep the invasive plant communities in check throughout the entire lake, manage nuisance natives only where necessary to make riparian owner's docks and swim areas more desirable for use, and to reduce nutrient loading to improve the health and water quality of the lake.

Recommended lake management cost not including treatment(s) or harvesting:

Permit application:	\$ 1,500.00
Spring Biobase Survey:	\$ 3,775.00
Post treatment/ Mid-Summer survey:	\$ 495.00
Fall AVAS Survey:	\$ 995.00
Standard water quality analysis & report (3 sites)	\$ 1,425.00
Fall lake management summary report and following year recommendations	\$ 775.00
Total lakes management costs not including aquatic herbicide treatment(s) or harvesting costs	\$ 8,965.00

Estimated Herbicide Treatment Cost Analysis:

Initial application:

120 acres of Systemic Hybrid Milfoil treatment & Curly Leaf Pondweed Control utilizing ProcellaCOR EC @ 6 PDU/acre & Diquat Dibromide @ 1 gal./acre	\$78,600.00
120 acres of Algae biowash control utilizing Chelated Copper @ 0.25 gal./acre	\$ 2,600.00

Second application:

20 acres of nuisance native plant control utilizing Diquat Dibromide & Aquathol K combo	\$ 5,600.00
20 acres of Algae control Chelated Copper @ 1 gal./acre	\$ 1,300.00
10 acres of Starry Stonewort control Copper Sulfate/Chelated Copper + Hydrothol 191	\$ 2,950.00

Third application:

20 acres of nuisance native plant control utilizing Diquat Dibromide & Aquathol K combo	\$ 5,600.00
20 acres of Algae control Chelated Copper @ 1 gal./acre	\$ 1,300.00
10 acres of Starry Stonewort control Copper Sulfate/Chelated Copper + Hydrothol 191	\$ 2,950.00

Total Estimated Herbicide Treatment Cost **\$100,900.00**

Total Estimated Cost of All Lake Management \$109,865.00



AGREEMENT TERMS:

MECHANICAL HARVESTING:

- Savin Lake Services will provide all necessary labor and materials to provide aquatic vegetation harvesting services utilizing our own vegetation harvesters.
- Proposed Price is based on a minimum of 30 acres being cut. If minimum acreage requirement is not met a \$2,500.00 setup and mobilization fee will be added to the total cost of actual acreages cut.
- Price includes removal and transportation of aquatic vegetation to a location within (5) miles of Lake.
- Savin Lake Services will harvest to a maximum depth of 5 ft where practical. Harvesting cannot be performed in areas with less than 18" of water depth. Savin Lake Services will make all reasonable efforts to harvest as needed between docks, and as close as possible to shorelines. For safety reasons, our harvesting crews will not harvest within (10) ft of any boat / dock / raft etc.
- Please note that a suitable launch is necessary to launch and remove our vegetation harvesters from your waterbody. Our harvester / trailer combinations weigh between 12,000 and 18,000 lbs. Savin Lake Services will make every reasonable effort to remove our harvesters from your water body without additional charges. However, any additional costs associated for towing or removal of our vegetation harvesters due to poor launch conditions will be the responsibility of the customer.
- Savin Lake Services will ensure that the launch area is kept clean and raked at the end of each day. All Savin Lake Services harvesters utilize a marine grade hydraulic oil for safety. The MSDS sheets for this hydraulic oil will be kept on site during any harvesting operations.
- All Savin Lake Services harvesters are equipped with GPS guidance systems so that we can ensure that we do not miss areas of harvesting on your lake. We will provide you a report at the end of each harvest which will indicate the exact area that we have harvested, and the total acres harvested.
- Savin Lake Services harvesters will pick up and collect most of the cut vegetation, however, it is important to note that some "cut and drift" vegetation will normally wash to shore during harvesting operations. We will work hard to minimize that amount of cut vegetation that washes to shore; however, it will be the responsibility of the property owners to collect and dispose of any vegetation that cannot be captured by our vegetation harvesters



LILY PAD CONTROL:

This is an optional program for the treatment of lily pads in the lake. Lily pad treatments are not part of the quoted price. This service is optional. Per the EGLE (State of Michigan) regulations, an area of 40ft X 40ft can only be treated at each residence. Boat lanes to open water can be considered for treatment also.

NON - TARGET SPECIES

Please be aware that we can only control weeds and algae that is present at the time of treatment. Emergent vegetation (cattails, bulrush, purple loosestrife), and lily pads require separate programs for control and are not treated unless specifically desired by the customer. We have no power over future weed and algae growth based on the current aquatic herbicides registered for aquatic use in Michigan.

POSTING OF TREATMENT AREAS

Posting signs will be placed every 80-100 ft. along the lake shore in developed areas and undeveloped areas where we intend to treat. All launches and access sites will be posted. We will use brightly colored signs and the colors will be different for each treatment. Please do not remove these signs until the last restriction date has passed. We will try to post the signs the day before treatment occurs, however there are some occasions that signs do get posted the morning of.

LIABILITY ISSUES

Dead and dying fish are an ugly sight. Truth is that most species of fish are relatively short-lived and have a high rate of mortality. Even large fish, too large to be eaten by predators such as bass and pike, experience a death rate of approximately 50% per year. Fortunately, the deaths are usually spread-out over the year and are rarely observed or become a problem except when concentrated as a fish kill. Only a fraction of the dead fish will ever be observed because many decompose on the bottom or are eaten by scavengers such as turtles and crayfish.

Most of the time, fish kills are due to natural causes over which we have no control, such as weather. Natural fish kills are of three basic seasonal types: winterkill, which occurs in late winter but may not be seen until early spring; spring kill, which is occurs in late May to early June; and summer kill, which occurs on the hottest days of mid-summer. Savin Lake Services cannot be held responsible for fish kills, as most fish kills are natural fish kills.

The above information was taken from the DNR website. For more information regarding fish kills please go here: http://www.michigan.gov/dnr/0,4570,7-153-10364_52259-119822--,00.html

PROPOSAL TERMS:

Any unforeseen change in State Regulatory Agency requirements concerning the implementation of any part of this agreement shall nullify this agreement.

Documentable aquatic management cost increases or decreases more than 3% per year may cause this contract to be re-evaluated in conjunction with the Walled Lake Improvement Board Board.

Savin Lake Services will not charge additionally for telephone conversations, meeting attendance, or an hourly rate for our staff. Those items are part of our standard operating philosophies.



TERM AND TERMINATION:

The term of this Professional Services Agreement shall commence on the signature date and shall continue for a period ending on December 31, 2022, or later with approved extension.

Agreement term extensions beyond calendar year 2022 at the amount of proposed price plus 3% are contingent upon the discretion of the Walled Lake Improvement Board Board.

If either party hereto fails to comply with a provision of this agreement, then the other party shall have the right to terminate this agreement by giving written notice of the default to the defaulting party and the defaulting party fails to cure the default within fifteen (15) days of receipt of said notice.

PAYMENT TERMS:

An invoice for the permit fee will be billed in the winter of the previous year (ex: Treatments for 2022 will have the permit fee billed in winter of 2021). Checks will be paid directly to Savin Lake Services. Savin Lake Services will apply for the EGLE permit through the State of Michigan once permit fee is received.

Following each treatment or service provided an invoice will be mailed or emailed. The invoice will show the date of treatment/service, acres treated, type of treatment/service, price per acre and total monies due. Invoice payment will be due in full net Sixty (60) days after the service rendered date.

AGREEMENT ACCEPTANCE

If the above proposal meets your needs, please sign below indicating your acceptance, and return to us at your earliest convenience. If you have any questions – please feel free to contact us at any time.

We look forward to continuing to work with the Walled Lake Improvement Board on the Walled Lake management project soon.

Sincerely,

A handwritten signature in cursive script that reads "Paul Barber".

Paul Barber – Operations Manager
Savin Lake Services Inc.

Ms. Megan Mikkus – Walled Lake Improvement Board

Date

Ms. Tina Miller – Walled Lake Improvement Board

Date



SAVIN LAKE SERVICES – COMPANY PROFILE

Savin Lake Services has been managing lakes and ponds in Michigan since 1995. The business was originally started as Rustin Lake & Pond Service by Dennis Rustin and was based in the Clare, Michigan area. Guy Savin purchased the company in 2004 and moved the main office location to Hale, Michigan. The business has grown over twenty (20) times the original size in the past 15 years. Savin Lake Services mission statement is simple. We truly believe that we are “Preserving our Lakes Today, for Our Generations Tomorrow”.

Savin Lake Services main office location is based in Hale, Michigan, and our work is located all over Michigan. Although we have only a single main office location – Savin Lake Services has been successful in managing lakes all over Michigan very well. We disperse our lakes management crews to a geographic location in Michigan and they remain in that area (typically staying in hotels) until all work in that area is completed. We feel that this philosophy allows us to service our lakes well, without adding the additional overhead associated with multiple locations. Savin Lake Services currently employs (12) commercially certified applicators, and (6) additional team members.

Savin Lake Services utilizes technology in our company that is not available with any other aquatic management company in the state of Michigan. Our GPS technology not only controls the application rate of the products that we apply to lakes, but our GPS technology also allows us to ensure that we are neither overlapping nor missing areas on your lake. We can also provide you with an application report generated from our GPS system, so that you know exactly where we have applied herbicide products to a lake, for each application that we perform utilizing our GPS enabled boats. Savin Lake Services also provides mechanical removal (harvesting) of submerged aquatic vegetation utilizing our own fleet of vegetation harvesters, and our vegetation harvesters are equipped with GPS guidance systems so that we can ensure that we do not miss areas of harvesting on your lake.

We have built our business based on servicing our customers well, and our location will allow us to respond to any issues or concerns that may arise on Walled Lake within a (2) day timeframe. Our solid reputation speaks for itself. We are known for a high level of quality service, and we have a strong commitment to customer satisfaction.

Savin Lake Services manages our business so that we may complete all our initial aquatic herbicide lake treatments between May 15th, and June 15th, depending on the weather, water temperature, and aquatic weed growth on a lake. We then treat each lake every 4 - 6 weeks during the summer. We feel that this management philosophy is very important. It ensures that our customer's lakes are looking good for the entire summer season.



If chosen to as your aquatic weed control service provider, Savin Lake Services will annually mail the Michigan Department of Environment, Great Lakes, and Energy (MEGLE) required “7 Day Lake Treatment notice” to all property owners on Walled Lake Improvement Board to comply with the MEGLE requirements for this notice. Savin Lake Services will post each lake (at no additional charge) with brightly colored signs 8 ½” x 11” prior to any lake treatment. These postings explain the planned date of treatment, the type of treatment that we are using, and the water restrictions associated with that treatment. Typically, our treatments will require a (1) day restriction of swimming, and up to a (14) day restriction on watering lawns / irrigation from the lake. We will re-post the lake with different colored signs for each additional treatment that we perform. This offers the property owners a visual cue to realize that we have completed an additional treatment. The homeowners are responsible for removing the signs after all water restrictions have expired.

The products that we use for aquatic nuisance weed control are of the highest quality and used in the safest manner possible. All the products are registered by the Federal EPA (Environmental Protection Agency) and controlled by the Michigan EGLE. The required permits are issued by the Michigan EGLE, and Savin Lake Services will manage the application for these permits (at no additional charge). Savin Lake Services is licensed by the State of Michigan and carries all required insurances. License and insurance will remain in effect to cover the entire treatment season. All the employees of Savin Lake Services are well trained and hold commercial certifications.

Savin Lake Services will add the Walled Lake Improvement Board to our insurance liability policy as “additional insured” at no additional charge (see below for copy of our Accord Page for our insurances).



CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)
01/05/2021

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must have ADDITIONAL INSURED provisions or be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER Diebold Insurance Agency 817 W Houghton Ave. P.O. Box 188 West Branch MI 48661		CONTACT NAME: Jackie Rachow PHONE (A/C, No, Ext): (989) 345-0200 FAX (A/C, No): (989) 345-0232 E-MAIL ADDRESS: jackie@dieboldinsurance.com	
INSURED Savin Lake Services, Inc 3088 Hottis Road Hale MI 48739		INSURER(S) AFFORDING COVERAGE INSURER A: Navigators INSURER B: Motorists Insurance INSURER C: Retailers Mutual Insurance Co INSURER D: INSURER E: INSURER F:	

COVERAGES CERTIFICATE NUMBER: 20 to 21 New WC REVISION NUMBER:

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

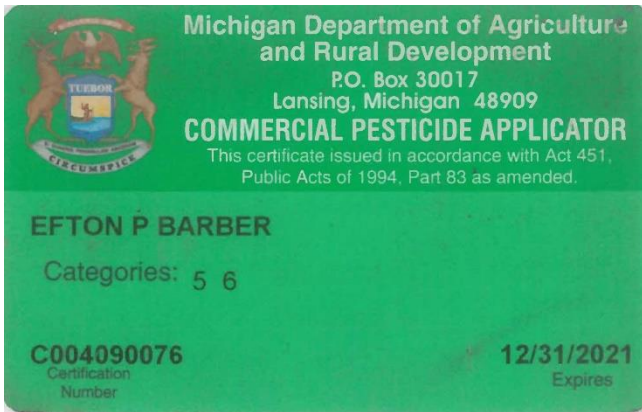
INSR LTR	TYPE OF INSURANCE	ADDL INSD	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS
A	<input checked="" type="checkbox"/> COMMERCIAL GENERAL LIABILITY <input type="checkbox"/> CLAIMS-MADE <input checked="" type="checkbox"/> OCCUR GEN'L AGGREGATE LIMIT APPLIES PER: <input checked="" type="checkbox"/> POLICY <input type="checkbox"/> PRO JECT <input type="checkbox"/> LOC OTHER:			NY20MPKZ0211J02	05/01/2020	05/01/2021	EACH OCCURRENCE \$ 1,000,000 DAMAGE TO RENTED PREMISES (Ea occurrence) \$ 50,000 MED EXP (Any one person) \$ 5,000 PERSONAL & ADV INJURY \$ 1,000,000 GENERAL AGGREGATE \$ 2,000,000 PRODUCTS - COMP/OP AGG \$ Operation Pollution \$ 1000,000 COMBINED SINGLE LIMIT (Ea accident) \$ 1,000,000 BODILY INJURY (Per person) \$ BODILY INJURY (Per accident) \$ PROPERTY DAMAGE (Per accident) \$ Uninsured/Underinsured \$ 1,000,000
B	AUTOMOBILE LIABILITY <input checked="" type="checkbox"/> ANY AUTO <input type="checkbox"/> OWNED AUTOS ONLY <input type="checkbox"/> SCHEDULED AUTOS <input type="checkbox"/> HIRED AUTOS ONLY <input type="checkbox"/> NON-OWNED AUTOS ONLY			5000008262	05/01/2020	05/01/2021	BODILY INJURY (Per person) \$ BODILY INJURY (Per accident) \$ PROPERTY DAMAGE (Per accident) \$ Uninsured/Underinsured \$ 1,000,000
	UMBRELLA LIAB <input type="checkbox"/> OCCUR EXCESS LIAB <input type="checkbox"/> CLAIMS-MADE DED: RETENTION \$						AGGREGATE \$ \$
C	WORKERS' COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? <input type="checkbox"/> Y <input checked="" type="checkbox"/> N (Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below		N/A	WCP00012195	12/15/2020	12/15/2021	<input checked="" type="checkbox"/> PER STATUTE <input type="checkbox"/> OTH-ER E.L. EACH ACCIDENT \$ 2,000,000 E.L. DISEASE - EA EMPLOYEE \$ 2,000,000 E.L. DISEASE - POLICY LIMIT \$ 2,000,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)

CERTIFICATE HOLDER Insured's Copy - Reference Only	CANCELLATION SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS. AUTHORIZED REPRESENTATIVE
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LICENSE: (Commercial Pesticide Applicator License):



LICENSE: (MDARD Pesticide Application Business License):





SAVIN LAKE SERVICES PROFESSIONAL STAFF:

Guy B. Savin, IV – President / Owner / Operator

Specialties: Lake management services, aquatic vegetation control, corporate strategic planning, full-lake aeration specialist, pond design and development. Education: B.S. Business Administration, Northwood University. Guy Savin has been involved with lake management for over twenty (20) years and as president he leads his team growing the business, attending trade conferences, and keeping current with regulations and lake management technologies. He is involved with the strategic direction of the company and is an active proponent of positive change within the industry. Guy is also an active member of many related organizations including the Secretary of the Michigan Aquatic Manager Improvement Board and the Midwest Aquatic Plant Management Society.

Paul Barber – Operations Manager/Regional Lakes Manager

Specialties: Lake and pond management services, aquatic and terrestrial vegetation control, project management, and fountain and aeration specialist. Paul Barber has been Certified Herbicide Applicator (including Category V and Category VI) for over 12 years and in that time, he has gained a vast amount of hands-on experience in all fields of services that we offer. Paul attends and has completed numerous classes, trade conferences, and sales/service training seminars to further his education and stay up to date on the latest technologies and changes in the industry. As Operations Manager, Paul oversees daily operations to ensure tasks are completed in a safe and timely manner, within budget, and meet or exceed company standards. Paul is also responsible for coordinating project details, staff and resource scheduling, skills and safety training, annual follow-up treatment reporting, required posting, and our GPS technology equipped boats.

Matt Novotny – Environmental Scientist/Regional Lakes Manager

Specialties: Certified Herbicide Applicator (including Category V and Category VI), water quality technician, and Ecological Studies. Education: B.S. Geochemistry, Western Michigan University. Matt Novotny has a wide variety of environmental knowledge obtained through his degree at Western. He heads up our water quality division, completes EGLE permit applications for herbicide applications, and acts as a lake consultant. Matt is also responsible for all required permitting, and annual follow-up treatment reporting. Matt's versatility allows him to be a part of many aspects of Savin Lake Services.

Contact Information

Savin Lake Services Inc.
3088 Hottis Rd.
Hale, MI 48739
(877)-SAV-LAKE { 877-728-5253}
(989) 728-2200 Fax: (989) 516-5900

guysavin@lakeandpond.com
paulbarber@lakeandpond.com
mattnovotny@lakeandpond.com

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Savin Lake Services Equipment Listing & Team Members:

EQUIPMENT:

- 12' Semi V hull aluminum pond treatment boat with 8HP Mercury outboard
- 12' Semi V hull aluminum pond treatment boat with 10HP Mercury outboard
- 14' Semi V hull aluminum lake & pond treatment boat with 15HP Mercury outboard
- 16' Semi V hull aluminum lake & pond treatment boat with 25HP Mercury outboard
- 19' Carolina Skiff fiberglass lake treatment boat with 60 HP Mercury outboard
- 16' Carolina Skiff fiberglass lake treatment boat with 60 HP Mercury outboard
- 17' Semi V hull aluminum lake & pond treatment boat with 40 HP Mercury outboard
- 20' Semi V hull aluminum lake treatment boat with 90HP Mercury outboard
- 20' Classic lake treatment airboat with Chevy 350 C.I. marine engine
- 2017 Chevrolet Tahoe with V Max trailering package
- 2017 Chevrolet Equinox – AWD with trailering package
- 2016 Chevrolet Silverado ½ Ton – 4x4 Crew Cab Truck
- 2014 Chevrolet Silverado ½ Ton-4x4 Extended Cab Truck
- 2011 Chevrolet Silverado ½ Ton-4x4 Extended Cab Truck
- (2) 2011 Chevrolet Silverado 1 Ton – 4 x 4 Duramax Diesel Crew Cab Trucks
- 2010 Chevrolet Silverado ¾ Ton – 4 x 4 Duramax Diesel Crew Cab Truck
- 2007 Chevrolet Silverado ¾ Ton - 4 x 4 Crew Cab Truck
- 2006 Chevrolet Kodiak 3 Ton – 4 x 4 Duramax Diesel Crew Cab Truck
- 2004 Chevrolet Silverado ½ Ton - 4 x 4 Extended Cab Truck
- 2003 Chevrolet S-10 – 4 x 4 Extended Cab Truck
- Liquid spray equipment including tanks, hoses, pumps, spray guns, etc.
- GPS coordinate mapping & application capabilities.
- Aquarius Systems H-220 Harvester (280 cubic feet capacity) – 5 ft. cutter head width
- Aquatics Unlimited Harvester (220 cubic feet capacity) - 8 ft. cutter head width
- Aquamarine H-650 Harvester (650 cubic feet capacity)- 8 ft. cutter head width
- (2) Aquarius Systems HM-420 Harvester (440 cubic feet capacity) – 7 ft cutter head width
- Vegetation Harvester (pontoon platform) for cut / float retrieval – 3 ft cutter head width

TEAM MEMBERS:

- Guy Savin – President & Commercially Certified Applicator since 2004
- Paul Barber – Operations Manager / Regional Lakes Manager & Commercially Certified Applicator since 2009
- Matt Novotny – Environmental Scientist / Regional Lakes Manager & Commercially Certified Applicator since 2012
- Seth Gibson – Environmental Scientist/ Fisheries Biologist/ Regional Lakes Manager
- Mike Kujawa – Pond Services Manager, and Commercially Certified Applicator since 2010
- Rhonda Sumeracki – Office Manager
- Scott Miller – Harvesting Operations Supervisor & Certified Marine Mechanic
- Justin Tenbusch – Commercially Certified Applicator since 2016
- Mark Halfacre – Commercially Certified Applicator since 2018
- Dario Martinez – Commercially Certified Applicator since 2020
- Caleb Barber – Posting Crew Member & Harvester Operator
- Mark Hooper – Posting Crew Member & Harvester Operator
- Anthony Scott – Posting Crew Member & Harvester Operator
- Sean Molloy – Harvester Operator
- Phillip Duchene – Harvester Operator
- Steven Obuch – Harvester Operator

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EXPERIENCE AND REFERENCES:

FIFE LAKE AQUATIC VEGETATION CONTROL

CLIENT:

Fife Lake Nuisance Weed Commission
Fred Joles - Former Fife Lake Township Supervisor
Weed Control Contact (231) 620-0098

LOCATION:

Grand Traverse and Kalkaska Counties, Michigan

KEY SERVICES PROVIDED:

Lake Management
Nuisance Weed Control
2,4-D granular application
Diquat Dibromide liquid application
Lily Pad Control

PROJECT DURATION:

2006 – 2021 (Contracted through 2021)

TOTAL CONTRACT COST:

\$575,000.00

PROJECT DESCRIPTION

The history between Savin Lake Services and Fife Lake actually dates back to 2006 when Savin Lake Services was awarded the lake management contract and aided in the establishment of a Special Assessment District. Ironically, a lake management and consulting firm selected a competing herbicide applicator in 2007 based upon the board's preference. Resulting from the public outcry originating from the dissatisfaction of the property owners in 2007, Savin Lake Services was awarded a multi-year contract in 2008 to return Fife Lake to its pre-2007 splendor. GPS generated application reports are provided at the conclusion of every visit. The systemic control philosophy that we have implemented has reduced the annually recurring hybridized milfoil population from 150 acres to approximately (10) acres treated per year. We have recently signed a five (5) year contract with Fife Lake for treatment through the 2021 season.





EXPERIENCE AND REFERENCES (Continued):

LAKE SOMERSET AQUATIC VEGETATION CONTROL AND DREDGING OPERATIONS

CLIENT:

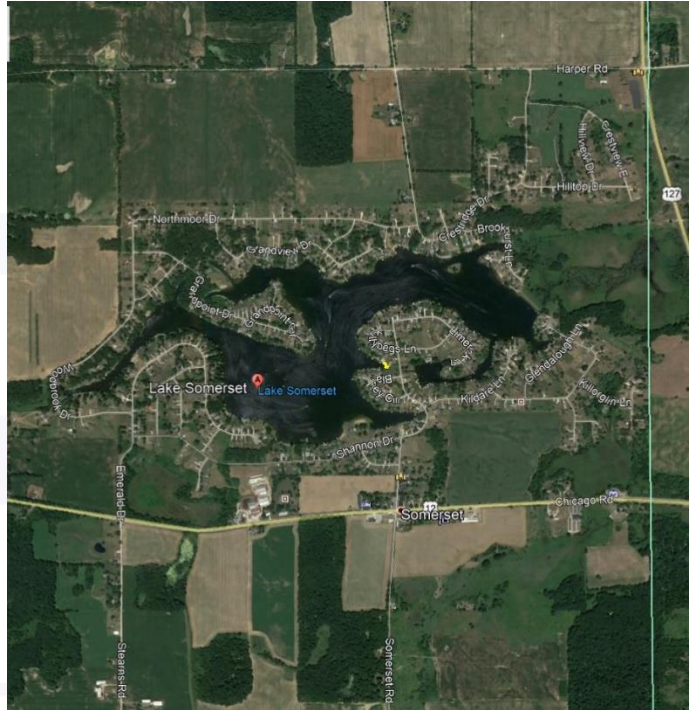
Lake Somerset POA
Jodi Dahlberg - President
(517) 815-4100 (cell)

LOCATION:

Hillsdale County, Michigan

KEY SERVICES PROVIDED:

- Lake Management
- Dredging Operations
- Nuisance Weed Control
- 2,4-D granular application
- Diquat Dibromide liquid application
- Aquatic Vegetation Harvesting
- Lily Pad Control



PROJECT DURATION:

2018 – 2023

TOTAL CONTRACT COST:

\$ 1,050,400.00

PROJECT DESCRIPTION

Lake Somerset offers over 187 acres of all sports activity located in Somerset Township in Hillsdale County. Savin Lake Services was originally awarded a \$ 700,000 dredging project in 2018, and in 2019 LSPOA hired us to be their lake management partner also.

This lake is a great example of our philosophy to “take control before things get out of control” as the Lake Somerset Improvement Board Board has renewed our contract this year for another three (3) years.



TERM AND TERMINATION:

The term of this Professional Services Agreement shall commence on the signature date and shall continue for a period ending on December 31, 2022, or later with approved extension.

Agreement term extensions beyond calendar year 2022 at the amount of proposed price plus 3% are contingent upon the discretion of the Walled Lake Improvement Board Board.

If either party hereto fails to comply with a provision of this agreement, then the other party shall have the right to terminate this agreement by giving written notice of the default to the defaulting party and the defaulting party fails to cure the default within fifteen (15) days of receipt of said notice.

PAYMENT TERMS:

An invoice for the permit fee will be billed in the winter of the previous year (ex: Treatments for 2022 will have the permit fee billed in winter of 2021). Checks will be paid directly to Savin Lake Services. Savin Lake Services will apply for the EGLE permit through the State of Michigan once permit fee is received.

Following each treatment or service provided an invoice will be mailed or emailed. The invoice will show the date of treatment/service, acres treated, type of treatment/service, price per acre and total monies due. Invoice payment will be due in full net Sixty (60) days after the service rendered date.

AGREEMENT ACCEPTANCE

If the above proposal meets your needs, please sign below indicating your acceptance, and return to us at your earliest convenience. If you have any questions – please feel free to contact us at any time.

We look forward to continuing to work with the Walled Lake Improvement Board on the Walled Lake management project soon.

Sincerely,

Paul Barber – Operations Manager
Savin Lake Services Inc.

Approved by Board at
September 21, 2021 meeting.
Megan Mikus, Secretary

Ms. Megan Mikus – Walled Lake Improvement Board

3/8/22

Date

Ms. Tina Miller – Walled Lake Improvement Board

Date



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Approved by Board at
September 21, 2021 meeting.

Megan Mikkus, Secretary

3/8/22

Date

3-8-2022

Date

Ms. Megan Mikkus – Walled Lake Improvement Board

Ms. Tina Miller – Walled Lake Improvement Board

MEMORANDUM

TO: WALLED LAKE IMPROVEMENT BOARD MEMBERS

FROM: MEGAN MIKUS, SECRETARY/TREASURER

SUBJECT: INSURANCE COVERAGE FOR THE BOARD

DATE: SEPTEMBER 11, 2023

At the last Board meeting on September 21, 2022, it was advised by the Board's attorney to get a quote for insurance for the Lake Board to cover any future liabilities. This coverage would be in addition to the insurance the Board requires of the lake management company to hold.

I contacted the WRC and other Oakland County Lake Boards. In my correspondence over the past year, only one Lake Board was able to provide me with a comparable quote for Directors and Officers insurance only. The feedback from that entity is only one insurance company provided a quote despite reaching out to several.

The City of Novi's insurance broker, Kapnick, provided the attached proposal from Atain Insurance Company. The annual premium and associated taxes and fees total \$6,926.98.

In the 2024 proposed budget, I have included this cost in case the Board decides to take action on this coverage.



Insurance Quote Presented to:

Atain

Insured: Walled Lake Improvement Board

Proposed Policy Period:

9/8/2023 - 9/8/2024

BY:

Atain Insurance Companies
220 Kaufman Financial Center
30833 Northwestern Hwy.
Farmington Hills, MI 48334
www.atainins.com



Atain Insurance Companies
 220 Kaufman Financial Group
 30833 Northwestern Hwy.
 Farmington Hills, MI 48334

Quotation

Issuing Company:	Atain Insurance Company Rated A (Excellent), Financial Size Category VIII, Non-Admitted	Date: 9/8/2023
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Named Insured:	Walled Lake Improvement Board
DBA:	
Mailing Address:	45175 Ten Mile Road Novi, MI 48375
Physical Address:	45175 Ten Mile Road Novi, MI 48375

Policy Period:	9/8/2023 - 9/8/2024
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Policy #	TBD	Renewal of: N/A
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Business Description:	Conservation Association
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Limits of liability:	Defense Costs offered outside the Limit of Liability Separate Professional Liability & General Liability Limits
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Directors, Officers and Organization Liability:

\$1,000,000	Limit - Per Claim	Deductible: \$2,500
\$1,000,000	Limit - Aggregate	

Employment Practices Liability:

\$1,000,000	Limit - Per Claim	Deductible: \$2,500
\$1,000,000	Limit - Aggregate	
\$100,000	Fair Labor Standards Act (FLSA) Sublimit	

Occurrence General Liability:

\$1,000,000	Limit - Per Claim	Retro Date: N/A
\$2,000,000	Limit - Aggregate	Deductible: \$2,500
INCLUDED	Limit - Products Completed Operations	
\$1,000,000	Limit - Personal Advertising/Injury	
\$100,000	Limit - Fire Damage	
\$10,000	Limit - Medical Expense	
No Cover	Hired and Non-Owned Auto Sublimit	

This quotation is for informational purposes only and is based upon the insurance application submitted. The potential insured may be subject to additional requirements that may affect their insurability or estimated premium. Only the actual insurance policy can provide coverages, conditions, exclusions, premiums and deductibles.



Sexual/Physical Abuse Defense Sublimit:

No Cover	Limit - Per Claim
No Cover	Limit - Aggregate

Employee Benefits Liability:

No Cover	Limit - Per Claim	Retro Date: N/A
No Cover	Limit - Aggregate	Deductible: N/A

Commercial Property Coverage:

No Cover	Limit - Commercial Building	Coinsurance: N/A
No Cover	Limit - Business Personal Property	Deductible: N/A
No Cover	Limit - Business Income and Extra Expense	W/H Deductible: N/A
No Cover	Limit - Scheduled Property	
No Cover	Limit - Theft	

Subjectivities:

FULLY Completed, signed and dated Atain NP D&O/EPL application – no more than 30 days prior to eff date.
 5 years loss history. If applicant has been in business less than five years, please provide history equivalent to the number of years in business.
 If GL, Acords 125 & 126 completed, signed and dated.
 TRIA form completed, signed and dated.

Policy Premium:

Directors, Officers and Organizational Liability	\$2,502	Premium: \$	6,319
Employment Practices Liability	Included	SL tax: \$	157.98
Commercial Property Coverage	No Cover	Policy fee: \$	450
Inland Marine Coverage	No Cover	Inspection fee / Carrier fee: \$	-
General Liability	\$3,635	Total: \$	6,926.98
Certified Acts of Terrorism	\$182		

Total Advance Premium **\$6,319** *does not include surplus lines tax*

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Forms & Endorsements:

DECLARATIONS	ASIC-NPDOL-DEC
COMMON POLICY CONDITIONS	NPDOL0001
COVERAGE PART A - NON PROFIT D&O LIABILITY	NPDOL0002
ANTI-TRUST & UNFAIR TRADE PRACTICES EXCLUSION	NPDOL0005
PUNITIVE DAMAGES PART A	NPDOL0044
COVERAGE PART B - EMPLOYMENT PRACTICE LIABILITY	NPDOL0003
PUNITIVE DAMAGES PART B	NPDOL0043
FAIR LABOR STANDARDS ACT SUBLIMIT ENDORSEMENT	NPDOL0046
DISCRIMINATION EXCLUSION	NPDOL0009
GENERAL PROFESSIONAL E&O EXCLUSION	NPDOL0010
PERSONAL INJURY EXCLUSION	NPDOL0016
SEXUAL ABUSE EXCLUSION	NPDOL0020
USA & TERRITORIES ENDORSEMENT	NPDOL0021
AFFILIATED PARTIES EXCLUSION	NPDOL0022
BROAD FORM POLLUTION EXCLUSION	NPDOL0024
BUILDER/DEVELOPER EXCLUSION - (10/12)	NPDOL0025
FAILURE TO MAINTAIN INSURANCE EXCLUSION	NPDOL0026
FAILURE TO PROVIDE/SUPPLY WATER EXCLUSION	NPDOL0027
LAND COUNSELING EXCLUSION	NPDOL0033
COMMUNICABLE DISEASE EXCLUSION	NPDOL2132
REMEDIATION OF WATER SUPPLY EXCLUSION	NPDOL0042
ATAIN INSURANCE COMPANIES CLAIM REPORTING INFORMATION	AF001772
POLICY JACKET	AF100
SCHEDULE OF FORMS AND ENDORSEMENTS	SOFAE
COMMON DECLARATIONS	UNLPFD1
SERVICE OF SUIT ENDORSEMENT	AF900
FRAUD, CONCEALMENT AND MISREPRESENTATION ENDORSEMENT	AF3380
MINIMUM EARNED PREMIUM & CANCELLATION	AF3550
COMMON POLICY CONDITIONS	IL0017
ABSOLUTE SILICA DUST EXCLUSION	AF3400
COMBINED COVERAGE EXCLUSION	AF001007
INFRINGEMENT, MISAPPROPRIATION - 07/22	AF001396
EXCLUSION - ASBESTOS	AF001737
COMMERCIAL GL SUPPLEMENTAL DEC	UNLPFSD1L
AMENDMENT OF SECTION IV	AF3378
CGL COVERAGE FORM AND CONDITIO	CG0001
ACCESS OR DISCLOSURE OF DATA EXCLUSION	CG2107
FUNGI OR BACTERIA EXCLUSION	CG2167
AMENDMENT OF INSURED CONTRACT DEFINITION	CG2426

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Atain Insurance Companies
220 Kaufman Financial Group
30833 Northwestern Hwy.
Farmington Hills, MI 48334

EMPLOYEES, IND. CONTRACTORS, LEASED WORKERS, VOLUNTEERS	AF000839
KNOWN INJ/DAMAGE EXCL- PERS & ADV INJ	AF000873
AMENDMENT-AIRCRAFT, AUTO OR WATERCRAFT EXCLUSION	AF000899
DAMAGE TO PREMISES RENTED TO YOU LIMITATION	AF001401
AMENDMENT OF NONPAYMET/CANCELLATION CONDITIONS	AF001707
EXCLUSION - STATE OF MISSOURI	AF001729
ACCEPTED TERRORISM COVERAGE	CG2170
Exclusion - Total Cannabis and Related Products	AF001788
TOTAL LIQUOR LIABILITY EXCL	BW58
COMMUNICABLE DISEASE EXCL	CG2132
DESIGNATED PREMISES ENDT	CG2144
EXCL-FAILURE TO SUPPLY	CG2250
DIVING BOARDS, WATER SLIDES, REC. APPARATUS EXCL	AF000714
EXCLUSION-AMUSEMENT DEAFES, PARTICIPANTS, ETC.	AF000832
ANIMAL EXCL	AF000835
SADDLE ANIMAL LIABILITY EXCL	AF000850
WATER HAZARDS ENDT	AF000854
CLIMBING, REBOUNDING, GAMES AND DEAFES EXCL	AF001434
CLASSIFICATION LIMIT	AF33510
NEW CONSTRUCTION RESIDENTIAL EXCL.	AF33515A

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**WALLED LAKE IMPROVEMENT BOARD
2024 ANNUAL BUDGET
PROPOSED**

<i>Description</i>	<i>Annual Budget</i>
<u>Income</u>	
City of Novi Assessments	\$61,090
City of Walled Lake Assessments	\$37,403
TOTAL INCOME	\$98,493

<u>Expenses</u>	<u>Notes</u>
Harvesting and Herbicide Treatments (including surveys and studies)	\$83,500
Permit Fee	\$1,600
Administrative & Legal	\$8,500 1
Other	\$1,000
TOTAL EXPENSES	\$94,600

Notes

1- Includes \$7000 for insurance coverage