

December 12, 2022

Silver Lake Management District
Jim Purinton - Chairman

Re: 2022 Aquatic Plant Survey and Report, Silver Lake, Kenosha County, Wisconsin

Dear Mr. Purinton and Board members:

In response to your request for aquatic plant management and surveying, Wisconsin Lake & Pond Resource, LLC (WLPR) visited the site in 2021. The purpose of this visit was to document populations of aquatic invasive species (AIS) and the condition of the existing plant community to assess the need for future management.

Background Information

Silver Lake is a 516-acre drainage lake located in the Town of Salem, Kenosha County, Wisconsin. Silver Lake has a maximum depth of 43 feet with a mean depth of 9.3 feet. The Silver Lake Management District is an active lake District that has been managing aquatic plants on the lake through chemical treatments. Hybrid water-milfoil and curly-leaf pondweed (CLP), both AIS, are present within the waterway, with only HWM actively managed for control.

The aquatic plant community of Silver Lake has been healthy, though periodically dense. However, introduction of aquatic invasive species caused an expanding problem with excessive aquatic plant growth. Eurasian water-milfoil, now confirmed as hybrid water-milfoil, has caused the most significant problem within Silver Lake, requiring active management through herbicide applications. Past management has been covered extensively in prior report completed for the SLPA. For further information regarding these applications, please reference the *Silver Lake 2016 Aquatic Plant Management Report* or *Silver Lake 2021 Aquatic Plant Survey Report*.

From the 2021 survey, areas of Hybrid water-milfoil had grown to nuisance levels and required management. Going into the 2022 season, 14 acres of the densest HWM was recommended for control. The most recent AIS management was completed June 8, 2022 to 14.0 acres in four locations of Silver Lake using ProcellaCOR EC (Figure 1).

A copy of the 2022 WDNR approved permit and treatment record are included in Attachment A. To gauge current conditions and plan for 2022 management, a follow-up aquatic plant survey was completed on October 20, 2022 by Wisconsin Lake & Pond Resource.



Wisconsin Lake & Pond Resource LLC

“Providing Professional Resources for Management of Your Lake or Pond”

Professional Pond Management Products and Services
 Aquatic Herbicide and Algaecide Applications
 Lake Management Planning and Services
 Pond Design and Development

2022 Aquatic Plant Survey

WLPR conducted the 2022 survey using a meander method around the entire perimeter of the lake with rake throws and visual observations to verify the presence of AIS. All locations of AIS, primarily E/HWM, were recorded on a GPS. Observations of native aquatic plant species were recorded to create a list of those present within the lake. Results of the mapping survey are found on Figure 2, attachment B.

E/HWM at the time of the survey was noted as green and in good condition, but was preparing to overwinter. Water temperatures for this time of year were slightly below average with excellent clarity noted. Water levels in Silver Lake were near normal at the time of the survey.

Composition of the aquatic plant community remained steady and of moderate diversity for similar lakes within the same region. Though the focus of the survey was to identify areas of HWM growth, native species were noted during the site visit. Overall, 21 different aquatic plant species were noted, including one AIS; hybrid Eurasian water-milfoil (Table 1). Similar to past surveys, there was high diversity per location with rooted vegetation growing to a depth of 14-16’.

| Species | 2022 |
|---------------------------------|-----------|
| Aquatic Invasive Species | |
| Hybrid water-milfoil | X |
| Submersed Species | |
| Chara (muckgrass) | X |
| Common bladderwort | X |
| Common waterweed | X |
| Coontail | X |
| Flat-stem pondweed | X |
| Fries' pondweed | X |
| Floating-leaf pondweed | X |
| Illinois pondweed | X |
| Long-leaf pondweed | X |
| Nitella | X |
| Southern naiad | X |
| Sago pondweed | X |
| Variable pondweed | X |
| Water stargrass | X |
| White-stem pondweed | X |
| Wild celery | X |
| Emergent Species | |
| Hardstem bulrush | X |
| Pickerelweed | X |
| Floating-Leaf Species | |
| Watershield | X |
| White water lily | X |
| Total | 21 |



Lake & Pond Resource LLC

“Providing Professional Resources for Management of Your Lake or Pond”

Professional Pond Management Products and Services
Aquatic Herbicide and Algaecide Applications
Lake Management Planning and Services
Pond Design and Development

Since the last large-scale management of 2015 there has been a significant regrowth of E/HWM. The 2021 survey identified E/HWM growing throughout a large portion of the Lake at varying densities. The 2022 survey identified HWM growing at various densities and distribution in the survey locations, but greatly reduced from 2021. The following densities were used to describe the HWM populations:

1. **Spots** – small locations of individual plants or clumps that were not large enough to map around their perimeter.
2. **Scattered** – locations of HWM that had plants closed enough to map as an area, but were still widely scattered. HWM is merely present and not a large component of the biomass.
3. **Low** – HWM identified in distinct beds. While individual plants or clumps may reach the surface, most a lower growing or not as dense. Often mixed with other vegetation.
4. **Moderate** – HWM occupies over half the water column with many plants or clumps at or just below the surface. Few other plant species found.
5. **High** – locations of HWM that were at or near the surface and occupied much of the water column. HWM may be the only plant found growing in these locations.

Control in target areas for HWM was excellent in 2022. Native species impacts were not observed in any treatment location. Observations by location treated in 2022 are as follows.

- **Area A:** Only a few individual stems of HWM were noted along the north side of the control area. Native species were prevalent throughout and dominated by sago pondweed, muskgrass, and white-stem pondweed.
- **Area B:** Control was excellent with no stems or plants of HWM noted. Native plant species remained unimpacted and included sago pondweed, muskgrass, Illinois pondweed, common waterweed, variable pondweed, and wild celery.
- **Area C:** Very good control of HWM with a few scattered stems remaining. Native species also appeared unimpacted here and included a good, diverse mix of species, such as muskgrass, wild celery, water star-grass, long-leaf pondweed, variable pondweed, and southern naiad.
- **Area D:** Good control of HWM was noted with a significant reduction in density and frequency. Only a few stems of HWM were noted to remain at the very norther tip of the target area. Native species found were in good condition, and included variable pondweed, wild celery, sago pondweed, and southern naiad.

Overall, 24.71 acres of HWM were identified in 2022 (Table 2, Figure 1). Populations of hybrid Eurasian water-milfoil undoubtedly exist outside the areas identified in 2022. A breakdown of the HWM present by density across Silver Lake is as follows:

| Density | Acreage |
|--------------|--------------|
| Scattered | 23.9 |
| Low | 0.81 |
| TOTAL | 24.71 |



Lake & Pond Resource LLC

“Providing Professional Resources for Management of Your Lake or Pond”

From 2021 to 2022 there was a significant reduction in HWM frequency that appears to have occurred naturally. The HWM present in late 2022 was largely of scattered density with pockets of low density mixed in one portion of the lake. In a majority scattered density areas HWM was merely present. Meaning, that though it was found growing it was mixed in with native species and not dense enough for active control. Much of these areas had a variety of native species that often grew dense. Densest areas of HWM that remained was found in a shallow depression that allows for an accumulation of organic sediments near the public beach.

An aquatic plant community is dynamic and changes year to year based on growing conditions and many other factors. Some species identified in 2022 were not directly sampled in the past and vice versa, but this should not be a cause for concern.

NEXT STEPS

After prior successful HWM management, this invasive species had rebounded in 2021, then reduced to levels as mapped and is now found at moderate frequency with scattered areas of primarily low density (Figure 2). Past surveys and management for the lake have shown that HWM can occupy large colonies and require management up to whole-lake dosing. All past large-scale management of HWM on Silver Lake has used integrated pest management (IPM) with a constant variety of active ingredients. 2,4-D, one of the active ingredients previously used, will likely see results if used again. Studies and first-hand experience are showing that strains of HWM previously exposed to 2,4-D can become tolerant and require increasingly higher rates for decreasing control results. Use of 2,4-D may not be a feasible treatment option for Silver Lake. The same concern may be viable for the active ingredient fluridone. The 2015 control for HWM was completed using fluridone. Future control with this ingredient should be done at higher rates if selected.

Current DNR recommendations for control of AIS includes the use of an integrated pest management approach. Use of IPM includes changing methods of control, including but not limited to: varying herbicide active ingredients, mechanical harvesting, hand or suction harvesting, and no-action. The spread of HWM in Silver Lake recorded in 2022 is found throughout littoral zone of the lake, but primarily and scattered and low densities. A majority of the locations are still too scattered to be feasibly or economically controlled. Management in 2023 is recommended for only the densest areas.

It is our recommendation to conduct management of the HWM in Silver Lake to the areas of densest growth. Much of the HWM present is at scattered densities and still below whole-lake density thresholds. The two densest areas are adjacent to the public swimming beach and should be combined into one target location for better success. It is important to continue to gauge the entire lake's aquatic plant community through periodic point-intercept plant surveys. The last whole-lake survey was completed in 2020 for Silver Lake. An aquatic plant management plan update and whole-lake survey are slated for 2023-24 in conjunction with a WDNR surface water grant applied for by the District in late 2022. Results of the grant application are still pending.



Lake & Pond Resource LLC

“Providing Professional Resources for Management of Your Lake or Pond”

In addition to the management plan update, a recommended timeline for 2023 management is as follows:

- **February 2023:** Apply for WDNR permit for up to 1.33 acres for control of HWM (Figure 3).
- **May/June 2023:** Herbicide application for E/HWM control using ProcellaCOR EC. Rates are to be determined based on further discussion with the product manufacturer.
- **August 2023 (management plan update):** whole-lake aquatic plant survey and mapping assess the entire plant population
- **Winter, 2023:** Complete an updated aquatic plant management plan
 - Aquatic plant statistics and changes
 - HWM mapping and management planning
 - Lake user survey
 - Update and submit aquatic plant management plan recommendations to the District and WDNR. Future planning may involve any of the following actions:
 - Varying scale of HWM control in 2024
 - WDNR AIS Grant application to future management
 - Continued monitoring

If you have any questions, require any additional information, or would like a formal proposal on any of the above management options please contact us directly as follows:

Jim Scharl: (920) 872-2032 or jim@wisconsinlpr.com

Respectfully,

A handwritten signature in black ink, appearing to read "Jim Scharl", written in a cursive style.



Lake & Pond Resource LLC

“Providing Professional Resources for Management of Your Lake or Pond”

Professional Pond Management Products and Services
Aquatic Herbicide and Algaecide Applications
Lake Management Planning and Services
Pond Design and Development

Attachment A: 2022 WDNR Permit & Treatment Record

| | |
|-----------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------|
| State of Wisconsin DNR Department of Natural Resources Water Permit Central Intake – attn. APM PO Box 7185 Madison, WI 53707-7185 | Chemical Aquatic Plant Control Permit |
|-----------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------|

Permit Number: SE-2022-30-14126
 Permit Expiration Date: 10/01/2022
 Waterbody Name: Silver Lake

Waterbody # (WBIC): 747900
 Fee Received: 395
 Waterbody Address: PO Box 165

Applicant Name: *Silver Lake Protection Association*

PO Box 165
Silver Lake, WI 53170

Email:

Phone:

Applicator Name: *Wisconsin Lake & Pond Resource, LLC*

N7828 Town Hall Rd
Eldorado, WI 54932

Email: jim@wisconsinlpr.com

Phone: 920-872-2032

Advanced Notification of Treatment is required

GENERAL STATEMENTS AND CONDITIONS:

The Department has received and reviewed your application to chemically treat up to 14.4 acres of aquatic plants in Silver Lake. Aspects of this permit may not be changed. Please go to this web address: <https://permits.dnr.wi.gov/water/SitePages/Permit%20Search.aspx> to search for and download the permit documents. Your permit application meets the minimum requirements by law and a permit is being issued with the following conditions.

- It is the responsibility of the applicant to follow the treatment plan outlined in the permit application and permit conditions. The treatment notification protocols, treatment plan, and reporting protocols shall be performed in compliance with Wisconsin Administrative Code Chapter NR 107. Noncompliance with the permit can result in enforcement actions under Wis. Stat. ss. 23.24(6) and 281.98 and restriction of aquatic plant management activities for subsequent years under Wis. Adm. Code Ch. NR 107. The conditions and treatment plan are required to be followed to ensure efficacy of the treatment.
- You shall notify Craig Helker of the Department of Natural Resources at 414-550-2970 or craig.helker@wisconsin.gov, at least 4 business days before treatment with the date and time of proposed treatment
- The Department may stop or limit the application of chemicals to a body of water if at any time it determines that the treatment will be ineffective, or will result in unreasonable restrictions on current water uses, or will produce unnecessary adverse side effects on nontarget organisms.
- You shall have a paper or electronic copy of this cover letter and permit with the individual conducting the treatment.

- You shall submit the Aquatic Plant Management Treatment record on the most updated form supplied by the Department as follows:
 - a. Immediately, if any unusual circumstances occur during treatment.
 - b. Within 30 days, if treatment occurs.
 - c. By October 1 of this year if no treatment occurred.

Notice:

- You shall decontaminate all project equipment used in the waterbody to minimize transport of aquatic invasive species (AIS) immediately after each use on the project site. You shall utilize best management practices: <https://dnr.wi.gov/topic/Invasives/disinfection.html> You shall comply with all provisions in State Stat. s. 30.07 and Wis. Adm Code s. NR 40.07 and Manual code 9183.1 For further information, please refer to the following: <https://dnr.wi.gov/topic/invasives/classification.html>.
- The approval of an aquatic plant management permit does not represent an endorsement of the permitted activity but represents that the applicant has complied with all criteria of this chapter.

If you have any questions or concerns, I can be reached at 414-550-2970 or by email at Craig.Helker@wisconsin.gov

State of Wisconsin Department of Natural Resources for the Secretary

| | | |
|---------------------------|-------------|-------------|
| By: Helker, Craig D | 6/1/2022 | 6/1/2022 |
| Water Resources Biologist | Date Signed | Date Mailed |

Please Note:

If you believe that you have a right to challenge this decision, you should know that Wisconsin statutes and administrative rules establish time periods within which requests to review Department decisions must be filed. For judicial review of a decision pursuant to ss. 227.52 and 227.53, Wis. Stats., you have 30 days after the decision is mailed or otherwise served by the Department, to file your petition with the appropriate circuit court and serve the petition on the Department. Such a petition for judicial review shall name the Department of Natural Resources as the respondent. This notice is provided pursuant to s. 227.48(2), Wis. Stats. To request a contested case hearing pursuant to s. 227.42, Wis. Stats., you have 30 days after the decision is mailed, or otherwise served by the Department, to serve a petition for hearing on the Secretary of the Department of Natural Resources. The filing of a request for a contested case hearing is not a prerequisite for judicial review and does not extend the 30-day period for filing a petition for judicial review.

**Chemical Aquatic Plant Control Application and Permit
Wisconsin Pollutant Discharge Elimination System (WPDES)
Pesticide Pollutant Permit Application**

Form 3200-004 (R 06/19) Page 1 of 4

Notice: Use of this form is required by the Department for any application filed pursuant to ss. 281.17(2) and 283.37, Wis. Stats., and Chapters NR 107, 200 and 205, Wis. Adm. Code. This permit application is required to request coverage for pollutant discharge into waters of the state. Personally identifiable information on this form may be provided to requesters to the extent required by Wisconsin's Open Records Law [ss. 19.31-19.39, Wis. Stats.].

| DNR Use Only | |
|--------------|------------------------|
| ID Number | Permit Expiration Date |
| Waterbody # | Fee Received |

Section I - Applicant Information - Name of Permit Applicant. Also indicate names and addresses of all individuals, associations, communities or town sanitary districts sponsoring treatment. Attach additional sheets if necessary.

| | | | | | |
|-------------------------------------------------------------|-------------|--------------------------------------------|---------------------|-------------|-------------------|
| Name Silver Lake Protection Association | | Name Silver Lake Protection Association | | | |
| Street Address PO Box 165 | | Street Address PO Box 165 | | | |
| City Silver Lake | State WI | ZIP Code 53170 | City Silver Lake | State WI | ZIP Code 53170 |
| Phone Number (include area code) Primary: (708) 227-2855 | | Secondary: dave@oceaventures.com | | | |

Section II - Aquatic Plant Control Location

| | | | | | | | |
|-----------------------------------------------------------------------------------------------------------------------------------|--|-----------------------------------------------------------------------------------------------------------------------------------|--|------------------------------------------------------------------------------------------------------------------------------------------------|--|----------------------------------------------------------------------|--|
| Waterbody to be Treated (waterbody where treatment area is located) | | | | Lake Surface Area 516 acres | | Estimated Surface Area that is 10 Feet or Less in Depth 300 acres | |
| Silver Lake | | County Kenosha | | Name of Applicator or Firm Wisconsin Lake & Pond Resource, LLC | | | |
| Section 17 | | Township 01 N | | Range 20 | | E W | |
| Latitude 42.5507290 | | Longitude -88.1529200 | | Street or Route N728 Town Hall Rd | | | |
| City Eldorado | | State WI | | ZIP Code 54932 | | County Fond Du Lac | |
| Phone Number (include area code) (920) 872-2032 | | Email Address jim@wisconsinlpr.com | | Applicator Certification Number for Category 5 Aquatic Pesticide Application 041446, 073906, 080532, 092501, 077803, 105360, 111179, 111622 | | | |
| Business Location License Number (if applicable) | | 03-015182-012226 | | Restricted Use Pesticide License Number (if applicable) | | | |
| Name of Lake Property Owners' Association Representative or Lake District Representative (if none, please indicate) David Zyer | | Name of Lake Property Owners' Association Representative or Lake District Representative (if none, please indicate) David Zyer | | | | | |

| Area(s) Proposed for Control: | Treatment Length | Treatment Width | Estimated Acreage | Average Depth | Calculated Volume |
|-------------------------------|------------------|-----------------|---------------------------------|-------------------------------|-------------------|
| 1. | ft X | ft + | 43,560 ft ² = 6.7 ac | X 4 ft = | 26.8 ac-ft |
| 2. | ft X | ft + | 43,560 ft ² = 1 ac | X 3.5 ft = | 3.5 ac-ft |
| 3. | ft X | ft + | 43,560 ft ² = 0.5 ac | X 2.5 ft = | 1.25 ac-ft |
| 4. | ft X | ft + | 43,560 ft ² = 6.2 ac | X 3.5 ft = | 21.7 ac-ft |
| 5. | ft X | ft + | 43,560 ft ² = ac | X ft = | ac-ft |
| 6. | ft X | ft + | 43,560 ft ² = ac | X ft = | ac-ft |
| 7. | ft X | ft + | 43,560 ft ² = ac | X ft = | ac-ft |
| 8. | ft X | ft + | 43,560 ft ² = ac | X ft = | ac-ft |
| 9. | ft X | ft + | 43,560 ft ² = ac | X ft = | ac-ft |
| Estimated Acreage Grand Total | | | 14.4 ac | Calculated Volume Grand Total | 53.25 ac-ft |

If the estimated acreage is greater than 10 acres, or is greater than 10 percent of the estimated area 10 feet or less in depth in Section II, complete and attach Form 3200-004A, Large-Scale Treatment Worksheet. Private pond treatments are exempted from this requirement. Is this area within or adjacent to a sensitive area designated by the Department of Natural Resources? Yes No

DNR Use: NHI Review? Yes No Describe:

**Chemical Aquatic Plant Control Application and Permit
WPDES Pesticide Pollutant Permit Application**

Form 3200-004 (R 06/19) Page 2 of 4

Section III - Fees

1. s. NR 107.11(1), Wis. Adm. Code, lists the conditions under which the permit fee is limited to the \$20 minimum charge.

2. s. NR 107.11(4), Wis. Adm. Code, lists the uses that are exempt from permit requirements.

3. s. NR 107.04(2), Wis. Adm. Code, provides for a refund of acreage fees if the permit is denied or if no treatment occurs.

4. Fee calculations:
If proposed treatment is over 0.25 acre, calculate acreage fee:
(round up to nearest whole acre, to maximum of 50 acres.)
_____ acres X \$25 per acre = \$ _____
If proposed treatment is ≤ 0.25 acre, acreage fee is \$0.

Enter Acreage Fee (from above) \$ 375.00
Basic Permit Fee (non-refundable) \$ 20.00
Total Fee Enclosed \$ 395.00

Site Map: Attach a sketch or a printed map of lake indicating area and dimensions of each individual area where plant control is desired and flow of surface water outside treatment area. Also show location of property owners riparian to and adjacent to the treatment area. Attach a separate list of owners and corresponding treatment dimensions coded to the lake map, if necessary.

Section IV - Reasons for Aquatic Plant Control

Is this permit being requested in accordance with an approved Aquatic Plant Management Plan? Yes No

Treatment Type: Lake Pond Wetland Marina Other

Goal of Aquatic Plant Control:

- Maintain navigational channel
- Maintain boat landing and carry in access
- Improve fish habitat
- Maintain swimming area
- Control of invasive exotics
- Other: _____

Nuisance Caused By:

| | | | |
|--------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <input type="checkbox"/> Algae | <input type="checkbox"/> Emergent water plants (majority of leaves and stems growing above water surface, e.g. cattails, bulrushes) | <input type="checkbox"/> Floating water plants (majority of leaves floating on water surface, e.g., waterlilies, duckweed) | <input checked="" type="checkbox"/> Submerged water plants (leaves and stems below water surface, flowering parts may be exposed, e.g., milfoil, coontail) |
| <input type="checkbox"/> Elodea | <input type="checkbox"/> Japanese Knotweed | <input type="checkbox"/> Reed Canary Grass | <input type="checkbox"/> Reed Manna Grass |
| <input type="checkbox"/> Common/Glossy Buckthorn | <input checked="" type="checkbox"/> Eurasian Watermilfoil | <input type="checkbox"/> Naiad | <input type="checkbox"/> Reed Manna Grass |
| <input type="checkbox"/> Coontail | <input type="checkbox"/> Flowering Rush | <input type="checkbox"/> Narrow-Leaf Cattail | <input type="checkbox"/> Slarry Stonewort |
| <input type="checkbox"/> Curly Leaf Pondweed | <input type="checkbox"/> Hybrid Cattail | <input type="checkbox"/> Phragmites | <input type="checkbox"/> Yellow Floating Heart |
| <input type="checkbox"/> Duckweeds | <input checked="" type="checkbox"/> Hybrid Watermilfoil | <input type="checkbox"/> Purple Loosestrife | <input type="checkbox"/> Yellow Iris |
| <input type="checkbox"/> Pondweeds | <input type="checkbox"/> Other plants: | | |

Section V - Chemical Control

Full Trade Name of Proposed Chemical(s):

| | | | | | |
|-------------------------------------------|------------------------------------------------|---------------------------------------------|----------------------------------------------------|------------------------------------------|-------------------------------------------|
| <input type="checkbox"/> Algimycin PWF | <input type="checkbox"/> Clearcast | <input type="checkbox"/> Garlon 3A | <input type="checkbox"/> Navigate | <input type="checkbox"/> Renovate LZR | <input type="checkbox"/> Sonar Genesis |
| <input type="checkbox"/> Aqua Star | <input type="checkbox"/> Cleargate | <input type="checkbox"/> Green Clean | <input type="checkbox"/> Navitrol | <input type="checkbox"/> Renovate Max G | <input type="checkbox"/> Sonar H4C |
| <input type="checkbox"/> Aquanet | <input type="checkbox"/> Clipper | <input type="checkbox"/> Habitat | <input type="checkbox"/> Navitrol DPF | <input type="checkbox"/> Renovate OTF | <input type="checkbox"/> Sonar PR |
| <input type="checkbox"/> AquaPro | <input type="checkbox"/> Clipper SC | <input type="checkbox"/> Harpoon | <input type="checkbox"/> Nutrisorb | <input type="checkbox"/> Reward | <input type="checkbox"/> Sonar Q |
| <input type="checkbox"/> Aquashade | <input type="checkbox"/> Current | <input type="checkbox"/> Harvester | <input type="checkbox"/> Orb-3 | <input type="checkbox"/> Rodeo | <input type="checkbox"/> Sonar RTU |
| <input type="checkbox"/> Aquashadow | <input type="checkbox"/> Cutrine-Plus | <input type="checkbox"/> Havoc Amine | <input type="checkbox"/> Phycocyanin SCP | <input type="checkbox"/> Roundup Custome | <input type="checkbox"/> Sonar SRP |
| <input type="checkbox"/> Aquastrike | <input type="checkbox"/> Cutrine-Plus Granular | <input type="checkbox"/> Hydrothol 191 | <input type="checkbox"/> Polaris | <input type="checkbox"/> SCI-62 | <input type="checkbox"/> SonarOne |
| <input type="checkbox"/> Aquathol K | <input type="checkbox"/> Cutrine-Ultra | <input type="checkbox"/> Hydrothol Granular | <input type="checkbox"/> Polaris AC | <input type="checkbox"/> Sculpin G | <input type="checkbox"/> Stingray |
| <input type="checkbox"/> Aquathol Super K | <input type="checkbox"/> DMA 4 IVM | <input type="checkbox"/> Komeen | <input type="checkbox"/> Pond-Klear | <input type="checkbox"/> SeClear | <input type="checkbox"/> Symmetry NXG |
| <input type="checkbox"/> Avast! SC | <input type="checkbox"/> EarthTec | <input type="checkbox"/> Komeen Crystal | <input checked="" type="checkbox"/> ProcellaCOR EC | <input type="checkbox"/> SeClear G | <input type="checkbox"/> Touchdown Pro |
| <input type="checkbox"/> Captain | <input type="checkbox"/> Element 3A | <input type="checkbox"/> K-Tea | <input type="checkbox"/> Refuge | <input type="checkbox"/> Shore-Klear | <input type="checkbox"/> Tribune |
| <input type="checkbox"/> Captain XTR | <input type="checkbox"/> Flumioxazin 51% WDG | <input type="checkbox"/> Milestone | <input type="checkbox"/> Renovate 3 | <input type="checkbox"/> Shredder Amine | <input type="checkbox"/> Weedar 64 |
| <input type="checkbox"/> Chinook | <input type="checkbox"/> Formula F-30 | <input type="checkbox"/> Nautique | <input type="checkbox"/> Renovate LZR | <input type="checkbox"/> Sonar AS | <input type="checkbox"/> Weedestroy AM-40 |

Other Proposed Chemical(s): _____

Method of Application: _____

**Chemical Aquatic Plant Control Application and Permit
WPDES Pesticide Pollutant Permit Application**

Form 3200-004 (R 06/19) Page 3 of 4

Section V - Chemical Control (continued)

| | | |
|-----------------------------------|---------------------------------------------------------------|---------------------------------------------|
| Alternatives to Chemical Control: | Feasible? | If No, Why Not? |
| 1. Mechanical harvesting | <input type="radio"/> Yes <input checked="" type="radio"/> No | spreads AIS |
| 2. Manual removal | <input type="radio"/> Yes <input checked="" type="radio"/> No | too large of areas |
| 3. Sediment screens/cover | <input type="radio"/> Yes <input checked="" type="radio"/> No | non-target damage |
| 4. Dredging | <input type="radio"/> Yes <input checked="" type="radio"/> No | not feasible |
| 5. Lake drawdown | <input type="radio"/> Yes <input checked="" type="radio"/> No | no ability to draw down |
| 6. Nutrient controls in watershed | <input type="radio"/> Yes <input checked="" type="radio"/> No | not a control option for immediate concerns |
| 7. Other: | <input type="radio"/> Yes <input checked="" type="radio"/> No | |

Note: If proposed treatment involves multiple properties, consider feasibility of EACH alternative for EACH property owner.

Note: Chemical fact sheets for aquatic pesticides used in Wisconsin are available from the Department of Natural Resources at the following link: dnr.wi.gov/Lakes/plants/factsheets/

Will surface water outflow be controlled to prevent chemical loss? Yes No

Have proposed chemicals been permitted in a prior year on the proposed site? All Some None

What were the results of the treatment?
good target control

Is treatment area greater than 5% of surface area? Yes No

If yes, calculate whole lake concentration (in ppm). Refer to DNR Lake pages dnr.wi.gov/Lakes to answer the following:

Does the lake stratify? Yes No

If yes, calculate whole lake concentration using volume above thermocline.
If no, calculate whole lake concentration using total lake volume.

Whole Lake Concentration: _____ ppm Proposed Chemical(s): _____

Section VI - Applicant Responsibilities and Certification

- The applicant has prepared a detailed map which shows the length, width and average depth of each area proposed for the control of rooted vegetation and the surface area in acres or square feet for each proposed algae treatment.
- The applicant understands that the Department of Natural Resources may require supervision of any aquatic plant management project involving chemicals. Under s. NR 107.07, Wis. Adm. Code, supervision may include inspection of the proposed treatment area, chemicals and application equipment before, during or after treatment. The applicant is required to notify the regional office 4 working days in advance of each anticipated treatment with the date, time, location and size of treatment unless the Department waives this requirement. Do you request the Department to waive the advance notification requirement? Yes No
- The applicant agrees to comply with all terms or conditions of this permit, if issued, as well as all provisions of Chapter NR 107, Wis. Adm. Code. The required application fee is attached.
- The applicant has provided a copy of the current application to any affected property owners' association, inland lake district and, in the case of chemical applications for rooted aquatic plants, to all owners of property riparian or adjacent to the treatment area. The applicant has also provided a copy of the current chemical fact sheet for the chemicals proposed for use to any affected property owner's association or inland lake district.
- Conditions related to invasive species movement. The applicant and operator agree to the following methods for controlling, transporting and disposing of aquatic plants and animals, and moving water:
 - Aquatic plants and animals shall be removed and water drained from all equipment as required by s. 30.07, Wis. Stats., and ss. NR 19.055 and 40.07, Wis. Adm. Code.
 - Operator shall comply with the most recent Department-approved 'Boat, Gear, and Equipment Decontamination and Disinfection Protocol', Manual Code # 9183.1, available at <http://dnr.wi.gov/topic/invasives/disinfection.html>

Check if you are signing as Agent for Applicant.

I hereby certify that the above information is true and correct and that copies of this application have been provided to the appropriate parties named in Section II and that the conditions of the permit and pesticide use will be adhered to.

Signature of Applicant _____ Date Signed _____

All portions of this permit, map and accompanying cover letter must be in possession of the chemical applicator at time of treatment. During treatment all provisions of Chapter NR 107, specifically ss. NR 107.07 and NR 107.08, Wis. Adm. Code, must be complied with, as well as the specific conditions contained in the permit cover letter.

**Chemical Aquatic Plant Control Application and Permit
WPDES Pesticide Pollutant Permit Application**

Form 3200-004 (R 06/19) Page 4 of 4

Section VII - WPDES Permit Request

Is WPDES coverage being requested? Refer to <http://dnr.wi.gov/topic/wastewater/aquaticpesticides.html> for more information.

No: Already have WPDES coverage. Yes - complete section VII with signature

WPDES coverage not needed

Select which permit you are requesting:

| | |
|-------------------------------------------------------------------------|-------------------------------------------------------|
| <input type="checkbox"/> WI-0064556-1 Aquatic Plants, Algae & Bacteria | <input type="checkbox"/> WI-0064564-1 Aquatic Animals |
| <input type="checkbox"/> WI-0064581-1 Mosquitoes & Other Flying Insects | |

Indicate WPDES permittee responsible for the pollutant discharge: Applicator Sponsor

Do you expect the pest control activity will result in a detectable pollutant discharge to waters of the state beyond the treatment area boundary or a pollutant residual in waters of the state after the treatment project is completed? Yes No

If yes, identify the pollutant(s): _____

Are you planning to incorporate integrated pest management principles, as specified in the WPDES permit, into your pest control activity to minimize any pollutant residual or pollutant discharge beyond the treatment area? Yes No

Type of WPDES coverage being requested: One Treatment Site Statewide coverage

For informational purposes, select areas of WI for most of your aquatic treatments: NW NE SW SE

Is WPDES coverage being requested for more than 1 year?
 Yes No If yes, the permittee will remain in "active" WPDES status until a Notice of Termination is submitted.

I hereby certify that I am the authorized representative (as specified in Ch. NR 205.07(1)(g), Wis. Adm. Code) of the pest treatment activity which is the subject of this permit application. I certify that the information contained in this form and attachments is, to the best of my knowledge, true, accurate and complete.

Signature of Authorized Representative _____ Printed Name _____ Date Signed _____

Section VIII - Permit to Carry Out Chemical Treatment (Leave Blank - DNR Use Only)

The foregoing application is approved. Permission is hereby granted to the applicant to chemically treat the waters described in the application during the season of 20____.

Application fee received?
 Yes No

State of Wisconsin
Department of Natural Resources
For the Secretary

By _____
Regional Director or Designee

Advance notification of treatment required?
 Yes No

Date Signed _____ Date Mailed _____

Please Note:
If you believe that you have a right to challenge this decision, you should know that Wisconsin statutes and administrative rules establish time periods within which requests to review Department decisions must be filed.
For judicial review of a decision pursuant to ss. 227.52 and 227.53, Wis. Stats., you have 30 days after the decision is mailed or otherwise served by the Department, to file your petition with the appropriate circuit court and serve the petition on the Department. Such a petition for judicial review shall name the Department of Natural Resources as the respondent.
To request a contested case hearing pursuant to s. 227.42, Wis. Stats., you have 30 days after the decision is mailed, or otherwise served by the Department, to serve a petition for hearing on the Secretary of the Department of Natural Resources. The filing of a request for a contested case hearing is not a prerequisite for judicial review and does not extend the 30-day period for filing a petition for judicial review.

Aquatic Plant Management

NOTE: Missing or incomplete fields are highlighted at the bottom of each page. You may save, close and return to your draft permit as often as necessary to complete your application. If there are no updates in 90 days, your draft is deleted

This Application has been Signed and Submitted by: i:0#.f|wamsmembership|jscharl signed on 2022-06-28T10:11:48

Site or Project Name:

Silver Lake - 2022

The permit application will be saved automatically with this name

Activity:

Chemical Treatment Record

Lookup Treatment Record Information

Permit ID #: SE-2022-30-14126

Permit Name: Silver Lake

Waterbody Name: Silver Lake

Permit Holder Name: Silver Lake Protection Association

Chemical Treatment Completed : Yes No

Permit Import Successful – Please Proceed to Treatment Tab

Enter previous years permit information below to import Contact Information (Optional)

3200-111 Chemical Control Treatment Record

- Complete form.
- Attach map with treated area(s) and dimension(s), if necessary.
- Attach file with additional sites if necessary
- Sign and submit form.

Aquatic Plant Management Herbicide Treatment Record

Form 3200-111 (R4/20)

Page 1 of 2

Notice: Completion of this form is a condition of the permit and provides records required by WDNR (NR 107) and DATCP (ATCP 29.21 and 29.22). The Department may not issue you future permits unless you complete and submit this form. Personal information collected will be used for administrative purposes and may be provided to requesters to the extent required by Wisconsin's Open Records Law [ss. 19.31-19.39, Wis. Stats.].

Submit this form: (1) immediately if any unusual circumstances occurred during treatment
(2) as soon after treatment as possible, no later than 30 days
(3) by October 1 if no treatment occurred

Completion of this form along with the permit satisfies the requirements of WDNR (NR 107) and DATCP (ATCP 29.21 and 29.22).

| | | | |
|-------------------------------------|--------------------------------------------------------------------------|-------------|-------------------|
| Permit Number SE-2022-30-14126 | Water body Name (including ponds, e.g., Smith Pond) Silver Lake | | |
| County Kenosha | Permit Holder Name (Customer Name) Silver Lake Protection Association | | |
| Permit Holder Address PO Box 165 | City Silver Lake | State WI | Zip Code 53170 |

Treatment Information

| | | | | | | |
|----------------------------------------|-------------------------------------|--------------------------------------------------|------------------|---------------------------------------------------------------------|------------------------|---------------------------------------------------------------------|
| Treatment Date(mm/dd/yyyy) 6/8/2022 | Starting Time (24:00 hour) 12:30 | Ending Time (24:00 hour) 15:00 | Water Temp 69 | <input type="checkbox"/> C <input checked="" type="checkbox"/> F | Ambient Air Temp 60 | <input type="checkbox"/> C <input checked="" type="checkbox"/> F |
| Wind Speed (mph) calm | Wind Direction North | Expected Duration of Chemical Residuals 1 day | | | | |

Adverse Conditions Noted (i.e., dead fish, spawning fish, algae bloom, etc.)

If adverse conditions noted, indicate corrective actions taken

Comments

| | |
|---------------------------------------------------------------------------------------------------------------|---------------------------------------------------|
| Onsite Supervision by DATCP and/or DNR Staff <input type="radio"/> Yes <input checked="" type="radio"/> No | If Yes, Supervisor Name : <input type="text"/> |
|---------------------------------------------------------------------------------------------------------------|---------------------------------------------------|

Mixing and Loading Site Location (if other than business site or from prepackaged retail container or applied with equipment with a total capacity of not more than 5 gallons liquid or 50 pounds dry)
Silver Lake

Water User Restriction
 No Restrictions Consuming Fish Pet/Livestock Water Irrigation (Crop)
 Swimming Drinking Water Irrigation Other:

Herbicide Treatment and Water Use Restrictions Signs Posted In Accordance With NR 107 and ATCP 29.22?

Applicator shall provide each customer with a free copy of each pesticide label used (if requested)

Applicator Information

| | | |
|--------------------------------------------------------------------|---------------------------------------------------------------|-------------------|
| Individual or Business Name Wisconsin Lake & Pond Resource, LLC | Telephone xxx-xxx-xxxx 920-872-2032 x <input type="text"/> | |
| Street Address N7828 Town Hall Rd | | |
| City Eldorado | State WI | ZIP Code 54932 |

| Individuals Making or Supervising Pesticide Application | Last Name | First | Certification # | License # |
|---------------------------------------------------------|-----------|-------|-----------------|-----------|
| | scharl | james | 77803 | 224355 |

grant

michael

114508

508568

Name of Person Completing Form

james scharl

Date: 6/8/2022

Aquatic Plant Management Herbicide Treatment Record

Form 3200-111 (R4/20)

Page 2 of 2

| Site No | Property Name | Address / Fire No | Treated acreage | Permitted Acreage | Sensitive Area? | Latitude | Longitude |
|---------|---------------|-------------------|-----------------|-------------------|--------------------------|----------|-----------|
| A | n/a | n/a | 6.70 | 6.70 | <input type="checkbox"/> | | |

| Herbicide Name | EPA Reg. No. | Amount Applied | Units | Application Concentration Rate (mg/l = ppm) |
|-----------------------|--------------|----------------|------------|---------------------------------------------|
| <u>ProcellaCOR EC</u> | 67690-80 | 107 | <u>PDU</u> | 0.008 ppm |

Other (not listed above) Other:

| Site No | Property Name | Address / Fire No | Treated acreage | Permitted Acreage | Sensitive Area? | Latitude | Longitude |
|---------|---------------|-------------------|-----------------|-------------------|--------------------------|----------|-----------|
| B | n/a | n/a | 1.00 | 1.00 | <input type="checkbox"/> | | |

| Herbicide Name | EPA Reg. No. | Amount Applied | Units | Application Concentration Rate (mg/l = ppm) |
|-----------------------|--------------|----------------|------------|---------------------------------------------|
| <u>ProcellaCOR EC</u> | 67690-80 | 18 | <u>PDU</u> | 0.008 ppm |

Other (not listed above) Other:

| Site No | Property Name | Address / Fire No | Treated acreage | Permitted Acreage | Sensitive Area? | Latitude | Longitude |
|---------|---------------|-------------------|-----------------|-------------------|--------------------------|----------|-----------|
| C | n/a | n/a | 0.50 | 0.50 | <input type="checkbox"/> | | |

| Herbicide Name | EPA Reg. No. | Amount Applied | Units | Application Concentration Rate (mg/l = ppm) |
|-----------------------|--------------|----------------|------------|---------------------------------------------|
| <u>ProcellaCOR EC</u> | 67690-80 | 5 | <u>PDU</u> | 0.008 ppm |

Other (not listed above) Other:

| Site No | Property Name | Address / Fire No | Treated acreage | Permitted Acreage | Sensitive Area? | Latitude | Longitude |
|---------|---------------|-------------------|-----------------|-------------------|--------------------------|----------|-----------|
| D | n/a | n/a | 6.20 | 6.20 | <input type="checkbox"/> | | |

| Herbicide Name | EPA Reg. No. | Amount Applied | Units | Application Concentration Rate (mg/l = ppm) |
|-----------------------|--------------|----------------|------------|---------------------------------------------|
| <u>ProcellaCOR EC</u> | 67690-80 | 87 | <u>PDU</u> | 0.008 ppm |

Other (not listed above) Other:

| TS | SP | Site(s) | TS | SP | Site(s) | TS | SP | Site(s) |
|--------------------------|-------------------------------------|---------------------|--------------------------|-------------------------------------|------------------------|-----|-------------------------------------|---------------------|
| <input type="checkbox"/> | <input type="checkbox"/> | Cattail | <input type="checkbox"/> | <input checked="" type="checkbox"/> | Flat-Stem Pondweed | all | <input type="checkbox"/> | Richardson Pondweed |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | Chara | <input type="checkbox"/> | <input type="checkbox"/> | Floating-Leaf Pondweed | | <input type="checkbox"/> | Robbins Pondweed |
| <input type="checkbox"/> | <input type="checkbox"/> | Coontail | <input type="checkbox"/> | <input checked="" type="checkbox"/> | Illinois Pondweed | all | <input checked="" type="checkbox"/> | Sago Pondweed |
| <input type="checkbox"/> | <input type="checkbox"/> | Curly-Leaf Pondweed | <input type="checkbox"/> | <input type="checkbox"/> | Large-Leaf Pondweed | | <input type="checkbox"/> | Watershield |
| <input type="checkbox"/> | <input type="checkbox"/> | Duckweed | <input type="checkbox"/> | <input type="checkbox"/> | Northern Milfoil | | <input type="checkbox"/> | White Water Lily |

| | | | | | | | | | | | |
|-------------------------------------|-------------------------------------|--------------------------|----------------------|--------------------------|--------------------------|--------------------|----------------------|--------------------------|-------------------------------------|---------------------|----------------------|
| <input type="checkbox"/> | <input type="checkbox"/> | Elodea | <input type="text"/> | <input type="checkbox"/> | <input type="checkbox"/> | Phragmites | <input type="text"/> | <input type="checkbox"/> | <input type="checkbox"/> | Wild Celery | <input type="text"/> |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | Eurasian /hybrid Milfoil | all | <input type="checkbox"/> | <input type="checkbox"/> | Planktonic Algae | <input type="text"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | White-Stem Pondweed | all |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | Filamentous Algae | all | <input type="checkbox"/> | <input type="checkbox"/> | Purple Loosestrife | <input type="text"/> | | | | |

Other Plants (not listed above)

| | | | |
|--------------------------|--------------------------|----------------------|----------------------|
| TP | SP | Name | Site(s) |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="text"/> | <input type="text"/> |

Required Attachments and Supplemental Information

Upload Required Attachments (15 MB per file limit) - [Help reduce file size and trouble shoot file uploads](#)

* indicates completion of this item is required

Note: To add additional attachments using the down arrow icon. To replace an existing file, use the 'Click here to attach file ' link. To remove additional items, select the item and press CNTRL Delete.

Site Map File Attachment

Treatment Plan File Attachment

Fee Calculation

Chemical Treatment Record

No additional payment required for submitting treatment records.

Chemical Control Application

- s. NR 107.11(1), Wis. Adm. Code, lists the conditions under which the permit fee is limited to the \$20 minimum charge.
- s. NR 107.11(4), Wis. Adm. Code, lists the uses that are exempt from permit requirements.
- s. NR 107.04(2), Wis. Adm. Code, provides for a refund of acreage fees if the permit is denied or if no treatment occurs.

| | |
|------------------------------------------------------------------------------------------------------------------------------------------------------|---------|
| If Proposed treatment is over 0.25, calculate acreage fee: (round up to nearest whole acre, to maximum of 50 acres) acres X \$25 per acre = \$ | 0.00 |
| If proposed treatment is less than 0.25 acre, acreage fee is \$0 | \$0.00 |
| Basic Permit Fee (non-refundable) | \$20.00 |
| Total Fee | \$20 |

Sign and Submit

Status

You can not submit your form until you have completed all areas of the treatment record.

Please complete the following missing items.

Treatment Activity: Complete

Attachments and Supplemental Information: Optional

Applicant Responsibilities and Certification

I certify that I have completed the Chemical Treatment Record as required by WDNR (NR107) and DATCP (ATCP 29.21 and 29.22).

Steps to Complete the signature process

IMPORTANT: All email correspondence will be sent to the address associated with your WAMS ID).

1. Read and Accept the Responsibilities and Certification
2. Press the Initiate Signature Process button
3. Open the confirmation email for a one time confirmation code and instructions to complete the signature process.

You will receive a final acknowledgement email upon completing these steps .

Check if you are signing as Agent for Applicant.

i:0#.f|wamsmembership|jscharl signed on 2022-06-

I hereby certify that the above information is true and correct and that copies of this submittal shall be provided to the appropriate parties named in the contact section and that the conditions of the permit and pesticide use will be adhered to.



Lake & Pond Resource LLC

“Providing Professional Resources for Management of Your Lake or Pond”

Professional Pond Management Products and Services
Aquatic Herbicide and Algaecide Applications
Lake Management Planning and Services
Pond Design and Development

Attachment B: Figures



| Area | Acres | Avg. Depth |
|--------------|-------------|------------|
| A | 6.7 | 4 |
| B | 1 | 3.5 |
| C | 0.5 | 2.5 |
| D | 6.2 | 3.5 |
| TOTAL | 14.4 | --- |

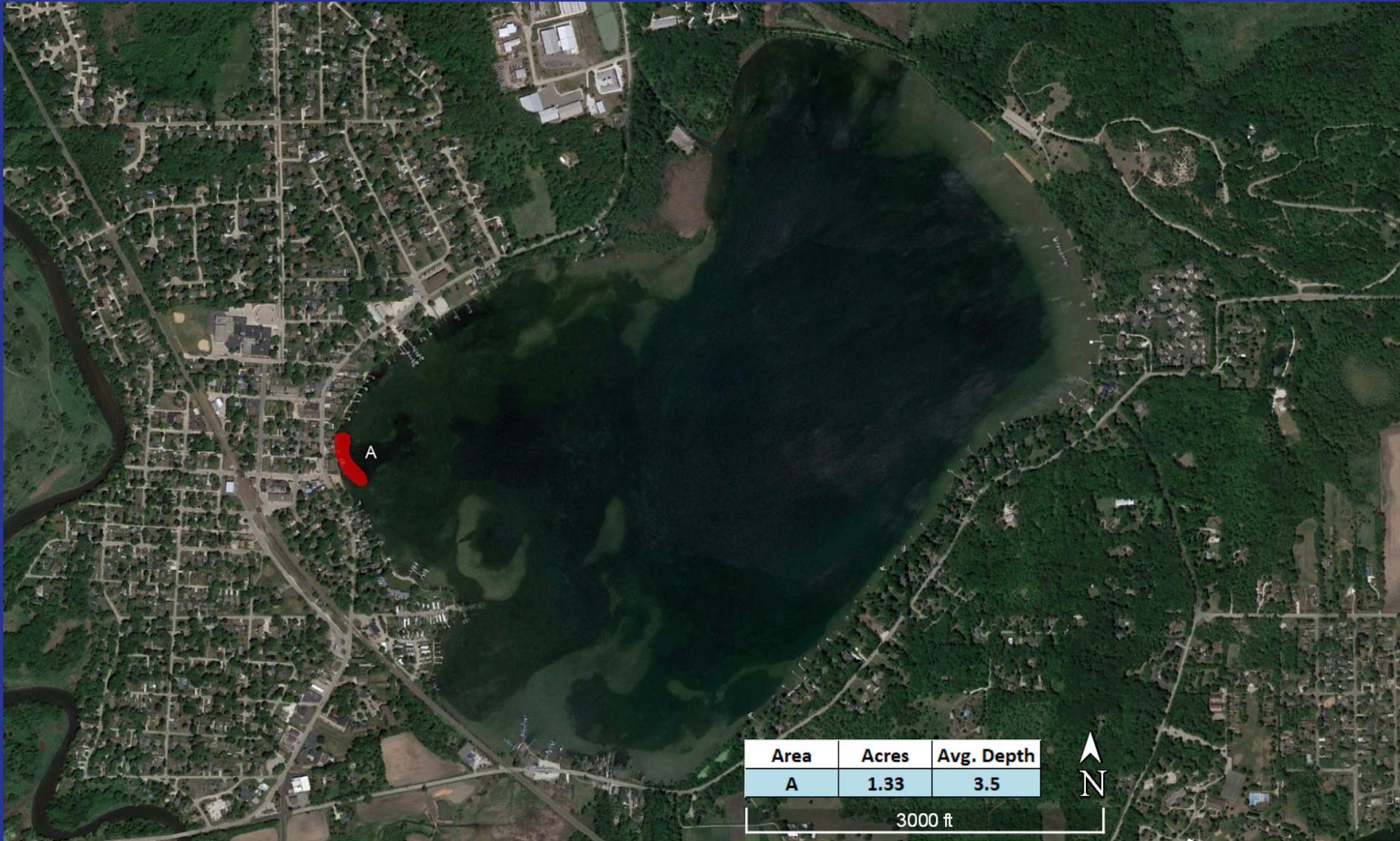
2022 HWM Management Locations


Wisconsin
Lake & Pond Resource LLC
 "Providing Professional Resources for Management of Your Lake or Pond"
www.WisconsinLPR.com (920) 872-2032

Figure 1
 Silver Lake, Kenosha County
 Treated: June 8, 2022

| Density | Acreage |
|--------------|--------------|
| Scattered | 23.9 |
| Low | 0.81 |
| TOTAL | 24.71 |





| Area | Acres | Avg. Depth |
|------|-------|------------|
| A | 1.33 | 3.5 |

3000 ft



Proposed 2023 HWM Control Location

Wisconsin
Lake & Pond Resource LLC
"Providing Professional Resources for Management of Your Lake or Pond"
www.WisconsinLPR.com (920) 872-2032

Figure 3
Silver Lake, Kenosha County
Surveyed: October 20, 2022