

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|hdharveyiii signed on 2025-02-13T08:46:21

Site or Project Name:

Lake Minnesuing Sanitary District 2025

The permit application will be saved automatically with this name

Activity:

Chemical Control Application-Lake, River, Pond

Eligibility:

(All questions must be no for it to be considered a private pond.)

Does the waterbody have:

- More than one property owner? Yes No
- Uncontrolled surface water discharge? Yes No
- Public access? Yes No

3200-004 Chemical Aquatic Control Application - Lake, River, Pond

NOTE: To be considered a private pond, a waterbody must meet all of the following requirements:

1. Confined to one property owner.
2. The pond has no uncontrolled surface water discharge.
3. No public access.

Upon submittal of your permit application, a **non-refundable \$20 permit processing fee will be charged**. Additional acreage fees will be refunded if the permit request is denied or if no treatment occurs.

3200-004 Chemical Aquatic Plant Control Application

- Annually complete all pages on Form 3200-004 for chemical plant management applications. Complete form 3200-004a for large scale treatments(exceeds 10.0 acres in size or 10% of the area of the water body that is 10 feet or less in depth) as required by NR107.04(3).
 - Form 3200-004 is completed electronically through this system.
 - Form 3200-004a must be completed outside the system and uploaded to the attachments section. Please refer to this link for a copy of this form: <http://dnr.wi.gov/files/pdf/forms/3200/3200-004A.pdf>
- Attach a map that shows the treatment location(s), treatment dimensions and riparian landowners. If requesting WPDES coverage, attach a water body map that shows surface outflow and receiving waters.
- For a large-scale treatment, attach evidence that a public notice has been published in a regional / local newspaper and if required that a public informational meeting has been conducted as defined in NR107.04(3).
- Pay fee online.
- Sign and Submit form.
- A signed permit application certifies to the Department that a copy of the application has been provided to any affected property owner's association/district and to landowners adjacent to treatment area.

Contact Information

Applicant Information

Organization Lake Minnesuing Sanitary District

Last Name: Sinclair

First Name: LLoyd

Mailing Address: 5856 Thorstrand Rd

City: Madison

State: WI

Zip Code: 53705

Email:

Phone Number:

(xxx-xxx-xxxx)

Alternative Phone Number:

(xxx-xxx-xxxx)

Waterbody Address

Last Name:

First Name:

Street Address: 10734 E Efaw La

City: Lake Nebagamon

State: WI

Zip Code: 54849

Email:

Phone Number:

(xxx-xxx-xxxx)

Alternative Phone Number:

(xxx-xxx-xxxx)

Applicator

Name of Applicator Firm: Schmidt's Aquatic, LLC

Applicator Certification #: 000977

Business Location License #: 93-022613-020730

Restricted Use Pesticide #:

Address: 7470 Sherman Rd

City: Bancroft

State: WI

Zip: 54921

Email: hdhiii@schmidtsaquatic.com

Phone Number: 920-980-9190
(xxx-xxx-xxxx)

Adjacent Riparian Property Owners

NOTE: Phone and email address will not be publicly viewable.

Uploaded riparian owners to attachment tab Riparian Owners Information is not applicable for this application

Name

Address

Phone

Email Address

Site Information - Complete

Waterbody Containing Control Area(s)

**Waterbody Property Owners Association
or Waterbody District Representative :**

Lake Minnesuing Sanitary District

None

Water Body or Wetland Name:

Lake Minnesuing

Primary County:

Douglas

Latitude:

46.4675

Longitude:

-91.7448

Section:

09

Township:

46

Range:

11

Direction:

E W

Waterbody Surface Area:

450 acres

Estimated Surface area that is 10ft or less

75 acres

Proposed Control Area(s)

Area(s) Proposed for Control:

Site Name (Optional)	Treatment Length	Treatment Width	Estimated Acreage	Average Depth	Calculated Volume
A-25	0 ft. x 0 ft.	$\div 43,560 \text{ ft}^2 =$	5.00 ac	8.00 ft =	40.00 ac-ft
B-25	0 ft. x 0 ft.	$\div 43,560 \text{ ft}^2 =$	3.10 ac	8.00 ft =	24.80 ac-ft
C-25	0 ft. x 0 ft.	$\div 43,560 \text{ ft}^2 =$	5.60 ac	7.50 ft =	42.00 ac-ft
Estimated Acreage Grand Total			13.70 ac	Calculated Volume Grand Total	106.80 ac-ft

Is the area with in or adjacent to a sensitive area designated by the Department of Natural Resources. [More Information](#)

Yes No

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.

Chemical Aquatic Plant Control Information - Lake, River, Pond Form 3200-004 (R 2/17)

Notice: Use of this form is required by the Department for any application filed pursuant to s. 281.17(2), 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.].

Treatment Type:

- Lake Pond Wetland Marina Other

Has a management plan been provided to the DNR? <input checked="" type="radio"/> Yes <input type="radio"/> No <input type="radio"/> Don't Know	If Yes, date approved of most current copy 2/1/2020	Link to Approved Plan: <input checked="" type="checkbox"/> Uploaded Plan copy as an Attachment
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Does the proposed plant removal agree with the approved plan? Yes No
If NO, explain, Attach additional sheets if necessary.

Goal of Aquatic Plant Control:

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

Nuisance Caused By:

- Algae
- Emergent water plants (majority of leaves & stems growing above water surface, e.g. cattail, bulrushes)
- Floating water plants (majority of leaves floating on water surface, e.g., water lilies, duckweed)
- Submerged water plants (leaves & stems below surface, flowering parts may be exposed: milfoil, coontail)
- Other

List Target Plants

- | | | |
|---|--|--|
| <input type="checkbox"/> Algae | <input type="checkbox"/> Flowering Rush | <input type="checkbox"/> Purple Loosestrife |
| <input type="checkbox"/> Common/Glossy Buckthorn | <input type="checkbox"/> Hybrid Cattail | <input type="checkbox"/> Reed Canary Grass |
| <input type="checkbox"/> Coontail | <input type="checkbox"/> Hybrid Watermilfoil | <input type="checkbox"/> Reed Manna Grass |
| <input checked="" type="checkbox"/> Curly-Leaf Pondweed | <input type="checkbox"/> Japanese Knotweed | <input type="checkbox"/> Starry Stonewort |
| <input type="checkbox"/> Duckweed | <input type="checkbox"/> Naiad | <input type="checkbox"/> Yellow Floating Heart |
| <input type="checkbox"/> Elodea | <input type="checkbox"/> Narrow-Leaf Cattail | <input type="checkbox"/> Yellow Iris |
| <input type="checkbox"/> Eurasian Watermilfoil | <input type="checkbox"/> Phragmites | <input type="checkbox"/> Pondweed |

Other Target Plants:

Note: Different plants require different chemicals for effective treatment. Do not purchase chemical before identifying plants.

Chemical Control

Full Trade Name of Proposed Chemical(s)

- | | | | |
|--|--|---|---|
| <input type="checkbox"/> Agristar 2,4-D Amine | <input type="checkbox"/> Clipper | <input type="checkbox"/> K-Tea | <input type="checkbox"/> SCI-62 |
| <input type="checkbox"/> Algimycin PWF | <input type="checkbox"/> Clipper SC | <input type="checkbox"/> Littora | <input type="checkbox"/> Sculpin G |
| <input type="checkbox"/> Alligare 2,4-D | <input type="checkbox"/> Current | <input type="checkbox"/> Milestone | <input type="checkbox"/> SeClear |
| <input type="checkbox"/> Alligare Argos | <input type="checkbox"/> Cutrine-Plus | <input type="checkbox"/> Nautique | <input type="checkbox"/> SeClear G |
| <input type="checkbox"/> Alligare Diquat | <input type="checkbox"/> Cutrine-Plus Granular | <input type="checkbox"/> Navigate | <input type="checkbox"/> Shoreklear-Plus |
| <input type="checkbox"/> Alligare Ecomazapyr | <input type="checkbox"/> Cutrine-Ultra | <input type="checkbox"/> Navitrol | <input type="checkbox"/> Shredder Amine |
| <input type="checkbox"/> Alligare Glyphosate 5.4 | <input type="checkbox"/> DMA 4 IVM | <input type="checkbox"/> Navitrol DPF | <input type="checkbox"/> Sonar AS |
| <input type="checkbox"/> Aqua Neat | <input type="checkbox"/> Earthtec | <input type="checkbox"/> Phycomycin SCP | <input type="checkbox"/> Sonar Genesis |
| <input type="checkbox"/> Aqua Star | <input type="checkbox"/> Element 3A | <input type="checkbox"/> Polaris | <input type="checkbox"/> Sonar H4C |
| <input type="checkbox"/> AquaPro | <input type="checkbox"/> Flumioxazin 51% WDG | <input type="checkbox"/> Polaris AC | <input type="checkbox"/> Sonar PR |
| <input type="checkbox"/> Aquashade | <input type="checkbox"/> Formula F-30 | <input type="checkbox"/> Pond-Klear | <input type="checkbox"/> Sonar Q |
| <input type="checkbox"/> Aquashadow | <input type="checkbox"/> Garlon 3A | <input type="checkbox"/> ProcellaCOR EC | <input type="checkbox"/> Sonar RTU |
| <input type="checkbox"/> Aquastrike | <input type="checkbox"/> Green Clean | <input type="checkbox"/> Refuge | <input type="checkbox"/> Sonar SRP |
| <input checked="" type="checkbox"/> Aquathol K | <input type="checkbox"/> Habitat | <input type="checkbox"/> Renovate 3 | <input type="checkbox"/> SonarOne |
| <input type="checkbox"/> Aquathol Super K | <input type="checkbox"/> Harpoon | <input type="checkbox"/> Renovate LZR | <input type="checkbox"/> Stingray |
| <input type="checkbox"/> Avast! SC | <input type="checkbox"/> Harvester | <input type="checkbox"/> Renovate LZR Max | <input type="checkbox"/> Symmetry NXG |
| <input type="checkbox"/> Captain | <input type="checkbox"/> Havoc Amine | <input type="checkbox"/> Renovate Max G | <input type="checkbox"/> Touchdown Pro |
| <input type="checkbox"/> Captain XTR | <input type="checkbox"/> Hydrothol 191 | <input type="checkbox"/> Renovate OTF | <input type="checkbox"/> Tribune |
| <input type="checkbox"/> Chinook | <input type="checkbox"/> Hydrothol Granular | <input type="checkbox"/> Reward | <input type="checkbox"/> Trycera |
| <input type="checkbox"/> Clearcast | <input type="checkbox"/> Komeen | <input type="checkbox"/> Rodeo | <input type="checkbox"/> Weedar 64 |
| <input type="checkbox"/> Clearigate | <input type="checkbox"/> Komeen Crystal | <input type="checkbox"/> Roundup Custom | <input type="checkbox"/> Weedestroy AM-40 |

Other Proposed Chemical(s):

Have the proposed chemicals been permitted in a prior year on the proposed site?

- All Some None

What were the results of the treatment?

Method of Application: Injection

Other Method of Application

NOTE: Chemical fact sheets for aquatic pesticides used in Wisconsin are available from the Department of Natural Resources upon request.

Alternatives to Chemical Control:	Feasible?	If No, Why Not?
1. Mechanical harvesting	<input type="radio"/> Yes <input checked="" type="radio"/> No	Possible Fragmentation
2. Manual removal	<input type="radio"/> Yes <input checked="" type="radio"/> No	Area Too Large
3. Sediment screens/covers	<input type="radio"/> Yes <input checked="" type="radio"/> No	Ara Too Large
4. Dredging	<input type="radio"/> Yes <input checked="" type="radio"/> No	Too Costly
5. Waterbody drawdown	<input type="radio"/> Yes <input checked="" type="radio"/> No	N/A
6. Nutrient controls in watershed	<input type="radio"/> Yes <input checked="" type="radio"/> No	N/A
7. Other:	<input type="radio"/> Yes <input checked="" type="radio"/> No	N/A

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

Will surface water outflow and/or overflow be controlled to prevent chemical loss?

- Yes No

Is the treatment area greater than 5% of surface area?

- Yes No

WPDES Permit Request

Is WPDES coverage being requested? Refer to

<http://dnr.wi.gov/topic/wastewater/aquaticpesticides.html> for more information

Yes - complete section VII with signature.

No

Already have WPDES








WPDES coverage not needed

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.

Riparian Owners	 File Attachment	Minnesuing Lake Riparian List 2025 (25).docx
Public Notice	 File Attachment	Superior Telegram 02-07-2025 B3 Print Page.pdf
Large Scale Worksheet	 File Attachment	Form 3200-4A Lake Minnesuing 2025-signed copy.pdf
Site Map	 File Attachment	Minnesuing Lake 2025 Map.pdf
Lake Management Plan	 File Attachment	MinnesuingDouglas_CompPlan_Final_Feb20(1)-compressed.pdf
Lake Management Plan	 File Attachment	MinnesuingDouglas_2024_CLP_Management&MonitoringReport_Jan9-2025.pdf
Lake Management Plan	 File Attachment	Proof of Publication 2025 Minnesuing Lake.pdf

Fee Calculation

Chemical Control Application

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.

If Proposed treatment is over 0.25, calculate acreage fee: (round up to nearest whole acre, to maximum of 50 acres)	13.7
acres X \$25 per acre = \$	\$350.00
If proposed treatment is less than 0.25 acre, acreage fee is \$0	
Basic Permit Fee (non-refundable)	\$20.00

Total Fee

\$370

Payment Information

Invoice Number: WP-00050915

Payment Confirmation Number: WS2WT3012186466

Amount Paid: \$370

Sign and Submit

Applicant Responsibilities and Certification

1. 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.
2. 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
3. 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.
4. The applicant will provide 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.
5. Conditions related to invasive species movement. The applicant and operator agree to the following methods required under s.NR 109.05(2), Wis. Adm. Code 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>

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

I hereby certify that that the above information is true and correct and that copies of the application shall be provided to all affected property owners promptly and that the conditions of the permit will be adhered to. All portions of this permit, map and accompanying cover letter must be in possession of the applicant or their agent at time of plant removal. During plant removal activities, all provisions of applicable Wisconsin Administrative Rules must be complied with, as well as the specific conditions contained in the permit cover letter.

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|hdharveyiii signed on 202.
- 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.

NOTE: Completion of this form is required by the Department, pursuant to s. 144.025(2)(i), Wis. Stats., and Chapter NR 107, Wis. Adm. Code, once every five years for proposed treatments that would cover more than 10 acres on one lake, or more than 10 percent of that portion of the lake that is 10 feet or less in depth.

The purpose of this form is to identify the: (1) recreational needs of the property owners and visitors;
(2) value of the proposed treatment area to fish and wildlife;
(3) cause(s) of the excess plant growth problem; and
(4) short and long-term solutions to the problem.

Please furnish a detailed map(s) of the lake and its watershed. Indicate the watershed boundaries on the map. If you do not have a watershed map for the lake you wish to treat, your DNR lake management coordinator can help you locate or prepare one.

SECTION I. BACKGROUND

Name of Applicant	Date Completed
Name of Lake	

SECTION II. RECREATIONAL USES

Check those uses that apply and complete the information requested:

- 1. **SWIMMING:** Indicate on your lake map the portions of the proposed treatment area that are used for swimming.
What distance from shore is needed to provide adequate swimming space? _____ feet
What is the average depth at this distance? _____ feet
- 2. **FISHING:** Indicate on your lake map any fishing areas that are within the proposed treatment area.
- 3. **HUNTING:** Indicate on your lake map any hunting areas that are within or adjacent to the proposed treatment area.
- 4. **BOATING/NAVIGATION:** Indicate on your lake map where the following boating activities take place within the proposed treatment area:
Sailing Water skiing Fishing
Pleasure boating Jet skiing Other _____
- 5. **AESTHETIC:** Indicate on your lake map any wildlife or nature observation areas within the proposed treatment area.
Do you object to the aesthetic quality (appearance, odor) of the proposed treatment area? Yes No
- 6. **OTHER:** What other activities occur in the proposed treatment area? _____

SECTION III. FISH AND WILDLIFE VALUE

- 1. **Fisheries:** To maintain a quality fishery, a lake must provide good spawning, rearing and feeding habitat. Please indicate on your lake map the location of any quality fisheries habitat. (Contact your local DNR fish manager or your local fishing club for information about your lake's fishery.)
- 2. **Wildlife:** Indicate on your lake map any portions of the proposed treatment area or adjacent shoreline that are considered to be good wildlife habitat. (Contact your local DNR wildlife manager or your local wildlife or hunting club for additional information about the wildlife around (and in) your lake.)
- 3. Which organization(s) or individual(s) did you contact for your information? _____

SECTION IV. CAUSES OF THE PROBLEM

What are perceived to be the local or regional causes of the problem? (Check all those that apply.)

- A. Agricultural runoff (from barnyards or croplands) that contributes sediment, nutrients and/or bacteria to the lake.
- B. Urban runoff (from stormwater) that contributes sediment, nutrients and other pollutants to the lake.
- C. Sewage treatment or industrial discharges upstream of the lake.
- D. Possible faulty septic systems in the area around the lake.
- E. Runoff from fertilized lawns near the lake.
- F. Sediments contaminated with nutrients from past pollution activities.
- G. Naturally fertile - no known human sources of excessive sediment, nutrients or other pollutants.
- H. Other: _____

Please identify on your watershed map the locations of any land use practices that are perceived to be contributing to excess plant growth problems in the lake.

SECTION V. SOLUTIONS

Control of aquatic plant problems can be temporarily accomplished with short-term measures, but no strategy will be successful without long-term planning to address the source of the problem. A sound plant management program should combine both short-term and long-term control strategies.

1. What level of short-term control do you wish to achieve?

- Remove 100% of the plants in the treatment area.
- Remove 70-99% of the plants in the treatment area.
- Remove less than 70% of the plants in the treatment area.

2. Which plants do you wish to remove in the short-term?

- Remove all plant species.
- Remove specific plant species only. (Name(s) of species: Curley Leaf Pondweed)

3. How often will it be necessary to:

- A. Chemically treat? 0 times per year for algae; 0 times per year for other plants
- B. Mechanically harvest? 0 times per year

4. What long-term control alternatives have you begun to implement?

- Developed a lake plant management plan.
- Developed a lake protection plan.
- Formed a Lake District, Lake Association or other organization. (Name: Lake Minnesuing Sanitary District)
- Established a monitoring program for the lake.
- Contacted the Soil Conservation Service or Land Conservation Commission to identify land use controls that are needed in the watershed.
- Conducted a septic survey with the county sanitarian.
- Other: _____

Long-term planning can provide an organized approach to solving the problems that are affecting the water quality of your lake. Your DNR lake management coordinator, county extension agent, or regional planning commission can provide specific technical information and assistance.

SECTION VI. PUBLIC INVOLVEMENT

1. Before you conduct a large-scale chemical aquatic plant treatment, you are required to provide the public with formal notice of the planned treatment (s. NR 107.04(3), Wis. Adm. Code). Please attach evidence (e.g., newspaper clipping) that such notice has been made.

2. You are also required to conduct a public informational meeting on the proposed large-scale treatment if 5 or more individuals, organizations or local or special units of government request such a meeting within 5 days of the notice (s. NR 107.04(3), Wis. Adm. Code).

Was a public informational meeting required for the proposed treatment? Yes No

If yes, please attach evidence that such a meeting was held.

3. These public notice and public meeting provisions apply each year that a treatment is proposed.

NOTE: This form is to be updated once every 5 years to include new information. Modifications of the proposed treatment within the 5-year period also require re-submittal of this form if the location or target organisms are changed, or if the treatment area is expanded by more than 10 percent.

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 of Form 3200-4, Application for Permit for Chemical Aquatic Plant Control.

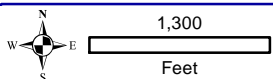
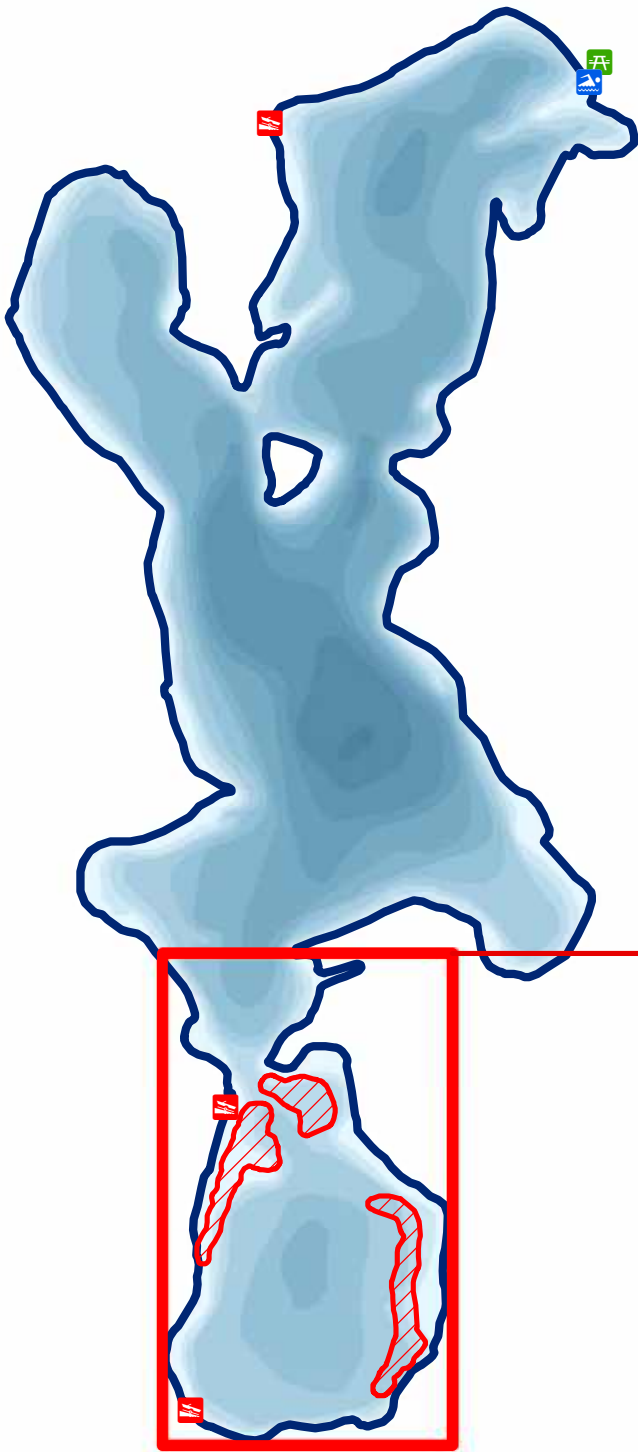
Applicant's Signature



Please attach with map(s) to Form 3200-4, Application for Permit for Chemical Aquatic Plant Control.

Proposed 2025 CLP Treatment Strategy				
Site	Acres	Ave. Depth (feet)	Volume (ac-ft)	Endothall PPM ai
A-25	5.0	8.0	40.0	2.0
B-25	3.1	8.0	24.8	2.0
C-25	5.6	7.5	42.0	2.0
Total	13.7		106.8	

* Potential 0.227 ppm ai (0.161 ppm ae) south basin concentration



Onterra LLC
 Lake Management Planning
 815 Prosper Road
 De Pere, WI 54115
 920.338.8860
 www.onterra-eco.com

Sources:
 Roads and Hydro: WDNR
 Aerial Photography: NAIP 2022
 Map Date: January 31, 2024 - RMF



Project Location in Wisconsin

Legend
 Proposed 2025 Herbicide Application Area

Map 4
 Lake Minnesuing
 Douglas County, Wisconsin
**Proposed 2025
 CLP Control Strategy**

ENDOTHALL CHEMICAL FACT SHEET

Formulations

Endothall was registered with the U.S. EPA for aquatic use in 1960, reregistered in 2005, and is currently under registration review. An interim registration review decision was released in 2021. Endothall is the common name of the active ingredient endothall acid (7-oxabicyclo[2,2,1] heptane-2,3-dicarboxylic acid). Endothall products are labeled for control of submersed aquatic plants using surface or subsurface application. Granular and liquid formulations are currently registered by the U.S. EPA and DATCP. Two types of endothall are available: dipotassium salt and dimethylalkylamine salt (“mono-N,N-dimethylalkylamine salt” or “monoamine salt”). Commercial formulations approved for aquatic use in Wisconsin include Aquathol® K and Hydrothol® 191.*

Aquatic Use and Considerations

Endothall is a contact herbicide (i.e., it affects plant cells on contact and does not move throughout the plant tissue) that inhibits respiration, prevents the production of proteins and lipids, and disrupts the cellular membrane in plants. It is a WSSA Group 31 herbicide, meaning the mechanism of action is by inhibiting serine-threonine protein phosphatase 1 (PP1). Although typical endothall application rates inhibit plant respiration, higher concentrations have been shown to increase respiration. Factors such as density and size of the plants present, water movement, and water temperature determine how quickly endothall works. For effective control, endothall should be applied when plants are actively growing. Under favorable conditions, plants begin to decompose within a few days after application. Uptake of endothall

is increased at higher water temperatures and higher light levels.

If endothall is applied to a pond or enclosed bay with abundant vegetation, no more than one-third to one-half of the surface should be treated at one time because excessive decaying vegetation may deplete the oxygen content of the water and kill fish. Untreated areas should not be treated until the vegetation exposed to the initial application decomposes.

Endothall products vary somewhat in the target species they control, so it is important to always check the product label for the list of affected species. Endothall products are labeled to control the invasive species curly-leaf pondweed (*Potamogeton crispus*)[†] and Eurasian watermilfoil (*Myriophyllum spicatum*). Native species that are labeled as susceptible to endothall include coontail (*Ceratophyllum demersum*), naiads (*Najas* spp.), milfoils (*Myriophyllum* spp.), pondweeds (*Potamogeton* spp.), sago pondweed (*Stuckenia pectinata*), water stargrass (*Heteranthera dubia*) and horned pondweed (*Zannichellia palustris*).[‡]

Post-Treatment Water Use Restrictions

Due to the many formulations of this chemical the post-treatment water use restrictions vary. All endothall products have a drinking water standard of 0.1 parts per million (ppm) endothall acid and cannot be applied within 600 feet of a potable water intake. Use restrictions for dimethylalkylamine salt

[†] The chemical manufacturers of endothall recommend that targeted treatment areas be greater than 5 acres for effective curly-leaf pondweed control.

[‡] May vary by formulation, application rate, and/or product. Every product label must be carefully reviewed and followed by the user.

* Product names are provided solely for your reference and should not be considered exhaustive nor endorsements.

formulations have additional irrigation and aquatic life restrictions.†

Herbicide Degradation, Persistence and Trace Contaminants

Endothall disperses with water movement and is broken down by microorganisms into carbon, hydrogen and oxygen. Field studies show that low concentrations of endothall persist in water for several days to several weeks depending on environmental conditions. Degradation of endothall is primarily microbial and the half-life (the time it takes for half of the active ingredient to degrade) of the dipotassium salt formulations averages four to ten days, although dissipation due to water movement may significantly shorten the effective half-life in some treatment scenarios. Complete degradation by microbial action is 30 to 60 days. The initial breakdown product of endothall is an amino acid, glutamic acid, which is rapidly consumed by bacteria.

Endothall is highly water soluble and does not readily adsorb to sediments or lipids. The degradation rate of endothall increases with increasing water temperature and decreases under anaerobic conditions. Relative to other herbicides, endothall is unique in that it is comprised of carbon, hydrogen and oxygen with the addition of potassium and nitrogen in the dipotassium and dimethylalkylamine formulations, respectively. This allows for complete breakdown of the herbicide without additional intermediate breakdown products.

Impacts on Fish and Other Aquatic Organisms

The dipotassium salt formulations are considered slightly to moderately toxic to freshwater fish and slightly toxic to freshwater invertebrates. However, certain species may be more sensitive than others. At recommended rates, the dipotassium salt formulations appear to have few short-term behavioral or reproductive effects on bluegill (*Lepomis macrochirus*) or largemouth bass (*Micropterus salmoides*). Bioaccumulation (the process by which chemicals in the environment or in a food source are taken up by plants or animals)

of dipotassium salt formulations by fish from water treated with the herbicide is unlikely.

The dimethylalkylamine formulations are more active on aquatic plants than the dipotassium formulations but are also more toxic to non-target aquatic organisms. They are highly toxic to both freshwater fish and invertebrates at concentrations above 0.3 ppm. In recognition of the extreme toxicity of the dimethylalkylamine salt, product labels do not recommend treatment where fish are an important resource.

Tadpoles and freshwater scuds are sensitive to dimethylalkylamine salt at levels ranging from 0.5 to 1.8 ppm.

Human Health

Most concerns about adverse health effects revolve around applicator exposure. Endothall may be harmful or fatal if inhaled, swallowed, or absorbed through skin. It can also cause irreversible eye damage. Wear proper personal protective equipment and follow label instructions while handling.

Endothall poses no risk to water users if water use restrictions are followed. Endothall is not a neurotoxicant or mutagen, nor is it likely to be a human carcinogen.

For Additional Information

U.S. Environmental Protection Agency (EPA)
Office of Pesticide Programs
epa.gov/pesticides

Wisconsin Department of Agriculture, Trade,
and Consumer Protection
datcp.wi.gov/Pages/Programs_Services/ACMOVerview.aspx

Wisconsin Department of Natural Resources
608-266-2621
dnr.wi.gov/lakes/plants

Wisconsin Department of Health Services
dhs.wisconsin.gov

National Pesticide Information Center
1-800-858-7378
npic.orst.edu



WARNING

PESTICIDE TREATMENT AREA

THIS WATERBODY HAS BEEN CHEMICALLY TREATED FOR:

INVASIVE PLANTS
 ALGAE

NAVIGATION/ACCESS
 FISH REMOVAL

MOSQUITO/BLACK FLY
 OTHER _____

PESTICIDE APPLIED

ACTIVE INGREDIENT

DATE TREATED

WATER USE RESTRICTIONS APPLY AS FOLLOWS:

TO THE ENTIRE WATERBODY

TO WATER WITHIN _____ FT OF THIS NOTICE AND _____ FT FROM SHORE

DO NOT USE TREATED WATER FOR THE FOLLOWING PURPOSES UNTIL:

SWIMMING _____

HOUSEHOLD USE (dishes, laundry, etc.) _____

CONSUMING FISH _____

DRINKING WATER _____

IRRIGATION (CROP) _____

PET/LIVESTOCK WATER _____

IRRIGATION (OTHER) _____



Wisconsin Dept. of Natural Resources
101 S. Webster St., P.O. Box 7921
Madison, WI 53707-7921
www.dnr.state.wi.us/lakes/plants/factsheets

SPONSOR _____
CONTACT _____
PHONE _____

PUB-FH-443 2011

AQUATHOL® K

AQUATIC HERBICIDE

For aquatic plant control in quiescent, slow moving,
and flowing water aquatic sites.

ACTIVE INGREDIENT:

Dipotassium salt of endothall* 40.3%

OTHER INGREDIENTS: 59.7%

TOTAL 100.0%

Contains 4.23 lbs. dipotassium endothall* per gallon

*7-oxabicyclo [2.2.1]heptane-2,3-dicarboxylic acid equivalent 28.6%

**KEEP OUT OF REACH OF CHILDREN
DANGER PELIGRO**

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle.
(If you do not understand the label, find someone to explain it to you in detail.)

FIRST AID

IF IN EYES:

- Hold eye open and rinse slowly and gently with water for 15-20 minutes.
- Remove contact lenses, if present, after the first 5 minutes, then continue rinsing.
- Call a poison control center or doctor for treatment advice.

IF SWALLOWED:

- Call a poison control center or doctor immediately for treatment advice.
- Have person sip a glass of water if able to swallow.
- Do not induce vomiting unless told by a poison control center or doctor.
- Do not give anything by mouth to an unconscious person.

IF ON SKIN OR CLOTHING:

- Take off contaminated clothing.
- Rinse skin immediately with plenty of water for 15-20 minutes.
- Call a poison control center or doctor for treatment advice.

IF INHALED:

- Move person to fresh air.
- If person is not breathing, call 911 or ambulance, then give artificial respiration, preferably mouth-to-mouth if possible.
- Call a poison control center or doctor for treatment advice.

HOT LINE NUMBER: Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 866-673-6671 (Rocky Mountain Poison Control Center) for emergency medical treatment information.

See inside for additional precautionary statements.

NOTE TO PHYSICIAN: Measures against circulatory shock, respiratory depression, and convulsion may be needed.

EPA Registration No. 70506-176

Batch/Lot No.: _____

Net Contents: _____



United Phosphorus, Inc.
630 Freedom Business Center, Suite 402
King of Prussia, PA 19406
1-800-438-6071

**PRECAUTIONARY STATEMENTS
HAZARDS TO HUMANS AND DOMESTIC ANIMALS**

DANGER

CORROSIVE. CAUSES IRREVERSIBLE EYE DAMAGE. MAY BE FATAL IF SWALLOWED. HARMFUL IF INHALED OR ABSORBED THROUGH SKIN. DO NOT GET IN EYES, ON SKIN, OR ON CLOTHING. AVOID BREATHING VAPORS OR SPRAY MIST. PROLONGED OR FREQUENTLY REPEATED SKIN CONTACT MAY CAUSE ALLERGIC REACTIONS IN SOME INDIVIDUALS.

Personal Protective Equipment (PPE)

Mixers, loaders, applicators and other handlers must wear:

- Long-sleeved shirt and long pants,
- Shoes and socks,
- Chemical-resistant gloves made of any waterproof material,
- Protective eyewear,
- NIOSH-approved respirator with a dust/mist filter with MSHA/NIOSH approval number prefix TC-21C or any N, R, P, or HE filter.

Exception: During application, the respirator need not be worn, provided that the pesticide is applied in a manner (such as direct metering or subsurface application from the rear of a vessel that is moving into the wind) such that the applicator will have no contact with the pesticide.

See Engineering Controls for additional requirements.

User Safety Requirements:

Follow the manufacturers' instructions for cleaning/maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry.

Discard clothing or other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them.

Engineering Controls:

When mixers and loaders use a closed system designed by the manufacturer to enclose the pesticide to prevent it from contacting handlers or other people AND the system is functioning properly and is used and maintained in accordance with the manufacturers written operating instructions, the handlers need not wear a respirator, provided the required respirator is immediately available for use in an emergency such as a spill or equipment breakdown.

When handlers use closed systems, enclosed cabs, or aircraft in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240(d) (4-6)], the handler PPE requirements may be reduced or modified as specified in the WPS.

User Safety Recommendations

User should:

- Wash hands thoroughly after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet.
- Remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

ENVIRONMENTAL HAZARDS

Do not contaminate water by cleaning of equipment or disposal of equipment washwaters.

This pesticide is toxic to mammals.

Treatment of aquatic plants can result in oxygen loss from decomposition of dead plants. This loss can cause fish suffocation. Water bodies containing very high plant density should be treated in sections to prevent suffocation of fish.

PRODUCT INFORMATION

Aquathol K is a liquid concentrate soluble in water which is effective against a broad range of aquatic plants. Dosage rates indicated for the application of Aquathol K are measured in parts per million (ppm) of dipotassium endothall.

DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

Do not apply this product in a way that will contact workers or other persons, either directly or through drift.

- Phytotoxicity is not expected on plants or crops irrigated with Aquathol K treated water, however, all species and cultivars (varieties) have not been tested.
- Undiluted Aquathol K may be injurious to crops, grass, ornamentals, and other foliage.
- Do not use Aquathol K treated water for chemigation as interactions between Aquathol K and other pesticides and fertilizers are not known.
- Do not use Aquathol K in brackish or saltwater.
- Wash out spray equipment with water after each operation.
- Contact of spray concentrate (product) directly or by drift with non-target plants or crops may result in injury.
- United Phosphorus, Inc. recommends not reducing Aquathol K rates below those specified within this label, when using Aquathol K in a treatment combination, or as a tank mix, with product(s) containing ALS inhibitor active ingredients, unless specified otherwise on this label or a United Phosphorus, Inc. supplemental label.

HOW TO APPLY:

Aquathol K is a contact herbicide; consequently, apply when target plants are present.

Aquathol K may be sprayed on the water or injected below the water surface. It may be applied as a concentrate or diluted with water depending on the equipment.

In instances where the plant(s) to be controlled is an exposed surface problem (i.e., some of the broad-leaved pond weeds), coverage is important. For best results, apply the concentrate with the least amount of water compatible with the application equipment.

Drinking Water (Potable Water)

Consult with appropriate state or local water authorities before applying this product to public waters. State or local agencies may require permits.

The drinking water (potable water) restrictions on this label are to ensure that consumption of water by the public is allowed only when the concentration of endothall acid in the water is less than the MCL (Maximum Contamination Level) of 0.1 ppm. Applicators must consider

the unique characteristics of the treated waters to assure that endothall acid concentrations in potable drinking water do not exceed 0.1 ppm at the time of consumption.

For Lakes, Ponds, and other Quiescent Water Bodies:

- For Aquathol K applications, the drinking water setback distance from functioning potable water intakes in the treated water body must be greater than or equal to 600 feet.
- Note: Existing potable water intakes that are no longer in use, such as those replaced by a connection to a municipal water system or a potable water well, are not considered to be functioning potable water intakes.

For Flowing Water Bodies:

- Applicator is responsible to assure that treated water exceeding the MCL of 0.1 ppm does not enter potable water intakes. For Aquathol K applications, potable water intakes must be closed when treated water exceeding the MCL of 0.1 ppm is present at the intake. In the event the water intake cannot be closed (when treated water will exceed 0.1 ppm), treatments must only be made downstream from the intake in order to assure Aquathol K treated water above 0.1 ppm does not enter the potable water system.

**QUIESCENT OR SLOW MOVING WATER TREATMENTS:
SURFACE OR INJECTED APPLICATIONS**

For aquatic plant control in quiescent or slow moving water, Aquathol K use rates can be found in the following chart. Since the active ingredient is water soluble and tends to diffuse from the treated area, select the dosage rate applicable to the area to be treated. Marginal treatments of large bodies of water require higher rates as indicated.

Use higher labeled rates of Aquathol K when making treatments to small areas with an increased potential for rapid dilution or when treating narrow areas such as boat lanes or shoreline treatments where dilution may reduce the exposure of plants to Aquathol K.

Use lower labeled rates of Aquathol K for large contiguous treatment blocks or in protected areas such as coves where reduced water movement will not result in rapid dilution of Aquathol K from the target treatment area or when treating entire lakes or ponds.

PLANTS CONTROLLED AND AQUATHOL K DOSAGE RATES FOR SURFACE OR INJECTED APPLICATION IN QUIESCENT OR SLOW-MOVING WATER

Aquatic Plant	APPLICATION RATE			
	Entire Pond/Lake or Large Area Treatment		Spot or Lake Margin Treatment	
	ppm Dipotassium Endothall	gallons Aquathol K per Acre Ft.	ppm Dipotassium Endothall	gallons Aquathol K per Acre Ft.
Coontail, <i>Ceratophyllum</i> spp.	2.0-3.0	1.3-1.9	3.0-5.0	1.9-3.2
Horned Pondweed, <i>Zannichellia palustris</i>	2.0-3.0	1.3-1.9	3.0-5.0	1.9-3.2
Sago Pondweed, <i>Stuckenia pectinata</i>	1.0-2.0	0.6-1.3	2.0-5.0	1.3-3.2
Hydrilla, <i>Hydrilla verticillata</i>	1.0-4.0	0.6-2.6	2.0-5.0	1.3-3.2
Hygrophila*, <i>Hygrophila polysperma</i>	4.0-5.0	2.6-3.2	5.0	3.2
Milfoil, <i>Myriophyllum</i> spp.	2.0-3.0	1.3-1.9	3.0-5.0	1.9-3.2
Naiad, <i>Najas</i> spp.	2.0-4.0	1.3-2.6	3.0-5.0	1.9-3.2
Pondweed, <i>Potamogeton</i> spp.	0.75-3.0	0.45-1.9	1.5-5.0	1.0-3.2
Including:				
American, <i>P. nodosus</i>	2.0-3.0	1.3-1.9	3.0-5.0	1.9-3.2
Largeleaf (Bass Weed), <i>P. amplifolius</i>	2.0-3.0	1.3-1.9	3.0-5.0	1.9-3.2
Curlyleaf, <i>P. crispus</i>	0.75-1.5	0.45-1.0	1.5-5.0	1.0-3.2
Flatstem, <i>P. zosteriformis</i>	2.0-3.0	1.3-1.9	3.0-5.0	1.9-3.2
Floating-leaf, <i>P. natans</i>	1.0-2.0	0.6-1.3	2.0-5.0	1.3-3.2
Illinois, <i>P. Illinoensis</i>	1.5-2.5	1.0-1.6	2.5-5.0	1.6-3.2
Narrowleaf, <i>P. pusillus</i>	1.0-2.0	0.6-1.3	2.0-5.0	1.3-3.2
Threadleaf, <i>P. filiformis</i>	2.0-3.0	1.3-1.9	3.0-5.0	1.9-3.2
Variable Leaf, <i>P. diversifolius</i>	1.0-2.0	0.6-1.3	2.0-5.0	1.3-3.2
Parrotfeather, <i>Myriophyllum aquaticum</i>	2.0-3.0	1.3-1.9	3.0-5.0	1.9-3.2
Water Stargrass, <i>Heteranthera</i> spp.	2.0-3.0	1.3-1.9	3.0-5.0	1.9-3.2

*Suppression only

PONDS AND SMALL LAKES WITH LITTLE TO NO OUTFLOW

The following directions are intended for ponds and small lakes with minimal outflows to assure adequate contact time with the weeds.

Apply Aquathol K directly to the perimeter or in multiple locations around the perimeter of the water body.

This will allow for rapid mixing throughout the water body as well as the water column.

For best results, apply in early spring when weeds are actively growing with a minimum of 24 hours contact time.

Apply Aquathol K at the following rate: PLANTS CONTROLLED AND AQUATHOL K DOSAGE RATES FOR SURFACE OR INJECTED APPLICATION IN PONDS AND SMALL LAKES

Aquatic Plant	Application Rate	Concentration (ppm)
Coontail (<i>Ceratophyllum</i> spp.) Horned Pondweed (<i>Zannichellia palustris</i>) Sago Pondweed (<i>Stuckenia pectinata</i>) Hydrilla (<i>Hydrilla verticillata</i>) Milfoil (<i>Myriophyllum</i> spp.) Parrotfeather (<i>Myriophyllum aquaticum</i>) Water Stargrass (<i>Heteranthera</i> spp.) Naiad (<i>Najas</i> spp.) Pondweed (<i>Potamogeton</i> spp.)	1.25 gallons Aquathol K per acre ft.	2.0 ppm

The following chart exemplifies the quantity of Aquathol K to be applied.

Examples of Aquathol K required for Treatment, Average Depth 4 ft. (2 ppm)

Amount of Aquathol K to Treat 1/2 Acre	Amount of Aquathol K to Treat 1 Acre
2.5 gallons	5.0 gallons

The following charts indicate the quantity of Aquathol K to be applied.

Gallons of Aquathol K to Treat One Acre-Foot of Water

	Rate (ppm)						
	0.75	1.0	1.5	2.0	3.0	4.0	5.0
1 acre ft.	gallons/A-ft.						
	0.45	0.6	1.0	1.3	1.9	2.6	3.2

Fluid Ounces of Aquathol K to Treat 1,000 Square-Feet per Foot of Depth

	Rate (ppm)						
	0.75	1.0	1.5	2.0	3.0	4.0	5.0
1,000 ft. ²	fl. oz./1,000 ft.²						
	1.4	1.9	2.8	3.8	5.7	7.6	9.4

FLOWING WATER TREATMENTS (WITH THE EXCEPTION OF IRRIGATION CANALS):
DRIP OR METERING SYSTEM APPLICATIONS

For aquatic plant control in flowing water, Aquathol K use rates can be found in the following chart. Apply Aquathol K in a manner to achieve the desired rate and adequate mixing so product is distributed throughout the entire water column. Adequate concentration (rate) and exposure time (length of treatment) will impact Aquathol K efficacy on the target plant species. Although Aquathol K is a contact herbicide adequate exposure time is critical. The following rate chart has been developed based on Concentration Exposure Time (CET) data for Aquathol K. The CET concept allows rates and the length of exposure to be adjusted for different treatment scenarios.

**AQUATHOL K APPLICATION RATES FOR DRIP OR
METERING APPLICATION SYSTEMS IN FLOWING WATER**

Plant Species	Length of Treatment (hours)							
	6	8	12	18	24	36	48	72
	Rate (ppm)							
Pondweeds (<i>Potamogeton</i> spp.) Sago Pondweed (<i>Stuckenia pectinata</i>)	4.0-5.0	3.0-4.0	2.0-3.0	1.5-2.5	1.0-2.0	0.75-1.5	0.5-1.0	0.5
Milfoil (<i>Myriophyllum</i> spp.) Parrotfeather (<i>Myriophyllum aquaticum</i>) Coontail (<i>Ceratophyllum</i> spp.) Horned pondweed (<i>Zannichellia</i> spp.) Hydrilla (<i>Hydrilla verticillata</i>) Naiad (<i>Najas</i> spp.) Water Stargrass (<i>Heteranthera</i> spp.)	5.0	4.0-5.0	3.0-4.0	2.0-3.0	1.5-2.5	1.0-2.0	0.75-1.5	0.5-1.0

NOTE: *Hygrophila (Hygrophila polysperma)* may be suppressed at the higher application rates listed in this table.

Restriction for flowing waters used for irrigation of food crops: Do not apply more than 30 ppm per growing season, not to exceed 5 ppm per application. Do not apply more than a total of 5 ppm within a 7-day interval.

Note: There is no Pre-harvest Interval (PHI) for crops irrigated with treated water.

To calculate the amount of Aquathol K required for a particular treatment use the following formula:

[Cubic Feet per Second (CFS) X Length of Treatment (hrs.) X Rate (ppm)] x 0.052947 = Gallons of Aquathol K Needed for Treatment

To calculate the amount of Aquathol K to be applied per hour use the following formula:

Gallons of Aquathol K per Hour = Total Gallons of Aquathol K / Length of Treatment (hrs.)

STORAGE AND DISPOSAL

Do not contaminate water, food, or feed by storage and disposal.

Pesticide Storage: Store in the original container. Do not store in a manner where cross-contamination with other pesticides, fertilizers, food or feed could occur. Storage at temperatures below 32°F may result in the product freezing or crystallizing. Should this occur the product must be warmed to 50°F or higher and thoroughly agitated. In the event of a spill during handling or storage, absorb with sand or other inert material and dispose of absorbent in accordance with the Pesticide Disposal Instructions listed below.

Pesticide Disposal: Pesticide wastes are acutely hazardous. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

Container Handling:

(for Nonrefillable containers)

Nonrefillable container. Do not reuse or refill this container. Triple rinse or pressure rinse container (or equivalent) promptly after emptying.

For containers 5 gallons or less:

Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times.

Or

Pressure rinse as follows: Empty the remaining contents into application equipment or a mix tank and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or mix tank or collect rinsate for later use or disposal. Insert pressure rinsing nozzle in the side of the container, and rinse at about 40 PSI for at least 30 seconds. Drain for 10 seconds after the flow begins to drip.

For containers more than 5 gallons:

Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container 1/4 full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times.

Or

Pressure rinse as follows: Empty the remaining contents into application equipment or a mix tank. Insert pressure rinsing nozzle in the side of the container, and rinse at about 40 PSI for at least 30 seconds. Pour or pump rinsate into application equipment or rinsate collection system. Drain for 10 seconds after the flow begins to drip.

Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

(for Refillable containers)

Refillable container. Refill this container with pesticide only. Do not use this container for any other purpose. Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller. To clean the container before final disposal empty the remaining contents from this container into application equipment or mix tank. Fill the container about 10 percent full with water. Agitate vigorously or recirculate water with the pump for 2 minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times. Then offer for recycling if available or reconditioning if appropriate or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities.

EMERGENCY TELEPHONE NUMBERS

CHEMTREC: (800) 424-9300

MEDICAL: (866) 673-6671 Rocky Mountain Poison Control Center

**IMPORTANT INFORMATION
READ BEFORE USING PRODUCT**

CONDITIONS OF SALE AND LIMITATION OF WARRANTY AND LIABILITY

NOTICE: Read the entire Directions for Use and Conditions of Sale and Limitation of Warranty and Liability before buying or using this product. If the terms are not acceptable, return the product at once, unopened, and the purchase price will be refunded.

The Directions for Use of this product reflect the opinion of experts based on field use and tests, and must be followed carefully. It is impossible to eliminate all risks associated with the use of this product. Crop injury, ineffectiveness or other unintended consequences may result because of such factors as manner of use or application, weather or crop conditions, presence of other materials or other influencing factors in the use of the product, which are beyond the control of United Phosphorus, Inc. or Seller. Handling, storage, and use of the product by Buyer or User are beyond the control of United Phosphorus, Inc. and Seller. To the extent consistent with applicable law, all such risks shall be assumed by Buyer and User, and Buyer and User agree to hold United Phosphorus, Inc. and Seller harmless for any claims relating to such factors.

TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, UNITED PHOSPHORUS, INC. AND SELLER MAKE NO WARRANTIES OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE NOR ANY OTHER EXPRESS OR IMPLIED WARRANTY EXCEPT AS STATED ON THIS LABEL.

To the extent consistent with applicable law, United Phosphorus, Inc. or Seller shall not be liable for any incidental, consequential or special damages resulting from the use or handling of this product and **THE EXCLUSIVE REMEDY OF THE USER OR BUYER, AND THE EXCLUSIVE LIABILITY OF UNITED PHOSPHORUS, INC. AND SELLER FOR ANY AND ALL CLAIMS, LOSSES, INJURIES OR DAMAGES (INCLUDING CLAIMS BASED ON BREACH OF WARRANTY, CONTRACT, NEGLIGENCE, TORT, STRICT LIABILITY OR OTHERWISE) RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT, SHALL BE THE RETURN OF THE PURCHASE PRICE OF THE PRODUCT OR, AT THE ELECTION OF UNITED PHOSPHORUS, INC. OR SELLER, THE REPLACEMENT OF THE PRODUCT.**

United Phosphorus, Inc. and Seller offer this product, and Buyer and User accept it, subject to the foregoing conditions of sale and limitations of warranty and of liability, which may not be modified except by written agreement signed by the duly authorized representative of United Phosphorus, Inc.

Aquathol is a registered trademark of United Phosphorus, Inc.

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