

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|amykay82 signed on 2020-04-08T14:23:17

Site or Project Name:

The permit application will be saved automatically with this name

Activity Chemical Control Application

Is there more than one property owner? Yes No

Will there be uncontrolled surface water discharge? Yes No

Does the water body have public access? Yes No

Eligibility:

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

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

Permit ID #:

Business Certification Number:

Invalid Permit or Business Certification Number

3200-004 Chemical Aquatic Control Application

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 or Pond Owner Information (Select Applicant Role)

Private Individual Contractor Lake Organization (Specify): McDill Inland Lake Prot...

Organization McDill Inland Lake Protection and Rehabilitation ...

Last Name: Olson

First Name: Krista

Mailing Address: 3317 Della Street

City: Stevens Point

State: WI

Zip Code: 54481

Email: mcdillpond@gmail.com

Phone Number: 715-347-8901
(xxx-xxx-xxxx)

Alternative Phone Number:
(xxx-xxx-xxxx)

Waterbody Address

Last Name: Olson

First Name: Krista

Street Address: 3317 Della Street

City: Stevens Point

State: MN

Zip Code: 54481

Email: mcdillpond@gmail.com

Phone Number: 715-347-8901
(xxx-xxx-xxxx)

Alternative Phone Number:
(xxx-xxx-xxxx)

Applicator

Name of Applicator Firm: Clarke Aquatic Services, Inc.

Applicator Certification #: 315594, 288191, 312329

Business Location License #: 93-018750-012132

Restricted Use Pesticide #:

Address: 20061 Edison Circle E

City: Clearwater

State: MN

Zip: 55320

County:

Email: akay@clarke.com

Phone Number: 715-891-6798
(xxx-xxx-xxxx)

Adjacent Riparian Property Owners or Other Individuals Sponsoring Removal

Individuals and organizations (e.g. Lake District, Lake Association, Property Owners Association, County Department of Recreation), sponsoring removal.

Uploaded riparian owners to attachment tab

Name	Address	Phone	Email Address
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

Site Information - Complete

Water Body to be Treated

Lake Property Owners Association or Lake District Representative : Krista Olson

None

Water Body Name: McDill Pond

County: Portage

Latitude: 44.506375

Longitude: -89.548671

Section: 03

Township: 23

Range: 08

Direction: E W

Lake Surface Area: 263 acres

Estimated Surface area that is 10ft or less: 240 acres

Proposed Treatment Area

Area(s) Proposed for Control:

Treatment Length	Treatment Width	Estimated Acreage	Average Depth	Calculated Volume
0 ft.	x 0 ft.	$\div 43,560 \text{ ft}^2 =$ 100.00 ac	4 ft =	400.00 ac-ft
		Estimated Acreage Grand Total	Calculated Volume Grand Total	
		100.00 ac	400.00 ac-ft	

Is the area with in or adjacent to a sensitive area designated by the Department of Natural Resources.

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 - 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.].

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 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 checked="" 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 checked="" 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)

Select Chemical Name: Tribune Herbicide

Other (not listed above) Other:

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

All Some None

Method of Application:

What were the results of the treatment?

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	<input type="text" value="active harvesting program in place, fragmentation of AIS not recommended"/>
2. Manual removal	<input type="radio"/> Yes <input checked="" type="radio"/> No	<input type="text" value="area too large"/>
3. Sediment screens/covers	<input type="radio"/> Yes <input checked="" type="radio"/> No	<input type="text" value="area too large, prevents beneficial plant growth"/>
4. Dredging	<input type="radio"/> Yes <input checked="" type="radio"/> No	<input type="text" value="too expensive"/>
5. Lake drawdown	<input type="radio"/> Yes <input checked="" type="radio"/> No	<input type="text" value="not site specific"/>
6. Nutrient controls in watershed	<input type="radio"/> Yes <input checked="" type="radio"/> No	<input type="text" value="not site specific"/>
7. Other:	<input type="radio"/> Yes <input type="radio"/> No	<input type="text"/>

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

Lake concentration calculations (in ppm.)

Refer to DNR Lake pages <http://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 value

Whole Lake Concentration ppm

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	McDillPondLakeDistrictMailingMaster.pdf
Public Notice	 File Attachment	McDillPond2020PublicNoticeProofofPublication.pdf
Large Scale Worksheet	 File Attachment	
Site Map	 File Attachment	200408McDillPond2020ProposedTreatmentAreasandCosts.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)	100.00
acres X \$25 per acre = \$	\$1,250.00
If proposed treatment is less than 0.25 acre, acreage fee is \$0	
Basic Permit Fee (non-refundable)	\$20.00
Total Fee	\$1,270

Payment Information

Invoice Number: WP-00023110

Payment Confirmation Number: WS2WT3004557587

Amount Paid: \$1,270

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 the above information is true and correct and that copies of the application have been provided to the appropriate parties name in Section II 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|amykay82 signed on 2020-04-08...

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

PUBLIC NOTICE

The McDill Inland Lake and Rehabilitation District (the District) proposes to chemically treat up to 100 acres of McDill Pond to control excessive growth of exotic invasive aquatic plants.

The proposed treatment is an application of the aquatic herbicide Reward or Tribune (diquat) to infestations. It is anticipated that the treatment will occur in spring 2020 and will proceed only after the District obtains a permit for the treatment from the Wisconsin Department of Natural Resources.

The water use restrictions for diquat are as follows:

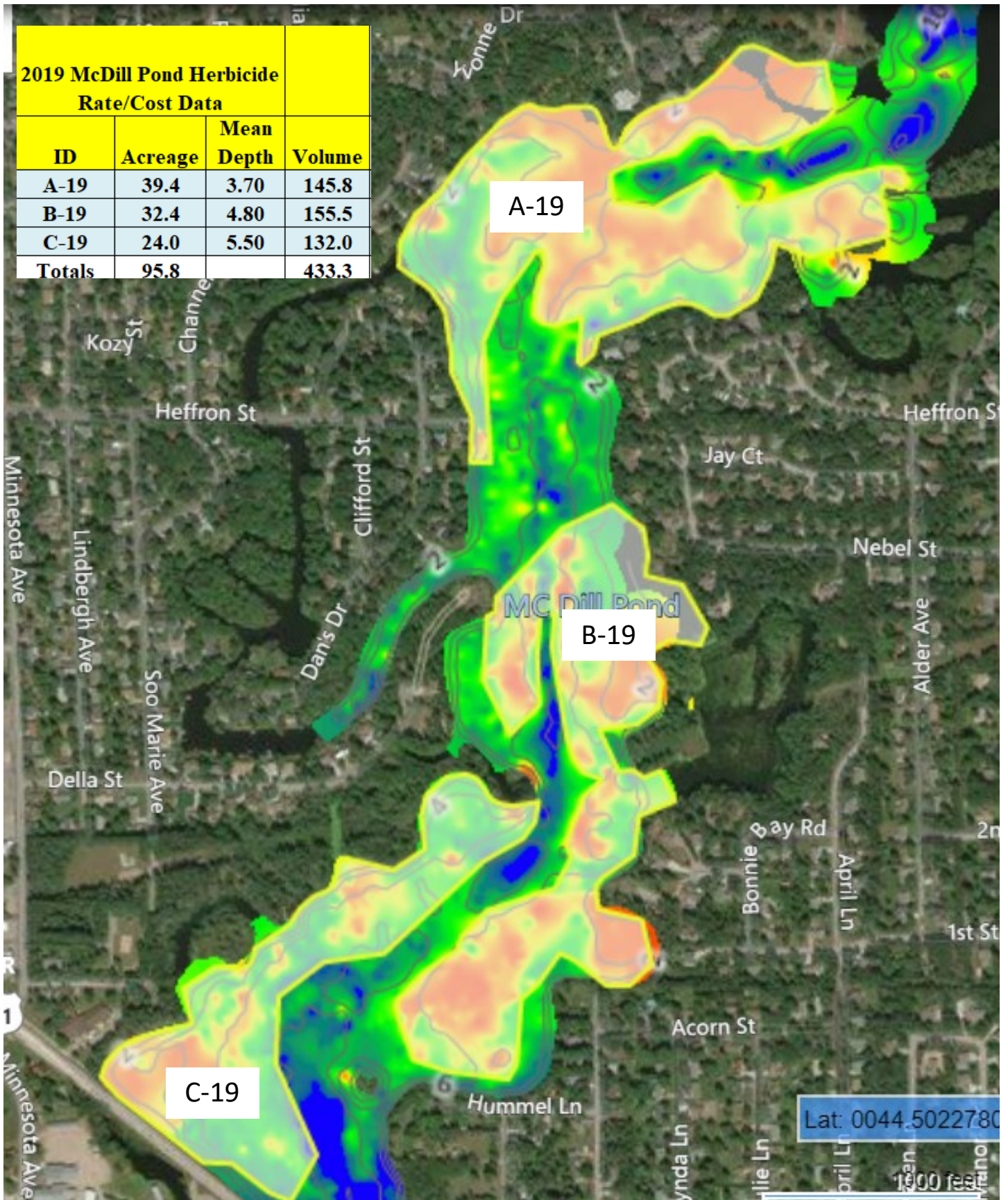
There are no swimming or fishing restrictions. Do not use water from treated areas for irrigation purposes for 5 days after treatment.

The District will hold a public informational meeting on the proposed treatments if five or more individuals, organizations, special units of government, or local units of government request one in writing. The person or entity requesting the meeting shall state a specific agenda of topics including problems and alternatives to be discussed. The request for a public informational meeting must be sent in writing to the McDill Inland Lake and Rehabilitation District, 3317 Della Street, Stevens Point, WI 54481 and to Wisconsin Department of Natural Resources, 473 Griffith Avenue, Wisconsin Rapids, WI 54494 within 5 days after the public notice is published.

MCDILL POND

2019 TREATMENT AREAS/2020 PROPOSED TREATMENT AREAS*

2019 McDill Pond Herbicide Rate/Cost Data			
ID	Acreage	Mean Depth	Volume
A-19	39.4	3.70	145.8
B-19	32.4	4.80	155.5
C-19	24.0	5.50	132.0
Totals	95.8		433.3



***TO BE REFINED FOLLOWING THE SPRING 2020 PRETREATMENT SURVEY**

First	Last	Str #	Str Addr	Property City St Zip	Mtg Q1 2020	Mtg Q2 2020	Mtg Q3 2020	Annual 2020	Mtg Q4 2020
Jane F	Aanrud Trust	3272	Clifford St	Stevens Point, WI 54481					
Joseph & Jerra	Adams	3111	Channel Dr	Stevens Point, WI 54481					
Deborah	Adams & David Scheer	1925	Locust St	Stevens Point, WI 54481					
AdamsScheer	LLC	3916	Locust St	Stevens Point, WI 54481					
James	Aeby	3201	Dan's Dr	Stevens Point, WI 54481					
Treva	Aeby	3425	Heffron St	Stevens Point, WI 54481					
Randall	Ambrosius	1905	Locust St	Stevens Point, WI 54481					
David	Balderson	3290	Clifford St	Stevens Point, WI 54481					
Ed & Penny	Bancker Revocable Trust	3903	Nebel St	Stevens Point, WI 54481					
Richard & Lori	Beggs	3316	Della St	Stevens Point, WI 54481					
Jameson	Belke	3101	Channel Dr	Stevens Point, WI 54481					
Jason	Besemer	3249	Channel Dr	Stevens Point, WI 54481					
Joseph & Elizabeth	Blonigen	3309	Soo Marie Av	Stevens Point, WI 54481					
Judith W	Bond	2633	Sunset Blvd #2	Stevens Point, WI 54481					
Dan & Gabriela	Breining	3908	Heffron St	Stevens Point, WI 54481					
Florian	Brooks & E Lasecke et al	3283	Thompson Ct	Stevens Point, WI 54481					
Scott	Brown	3233	Dan's Dr	Stevens Point, WI 54481					
Craig & Holly	Busse	3252	Clifford St	Stevens Point, WI 54481					
Trust	BUTTERWORTH	3225	Dan's Dr	Stevens Point, WI 54481					
Bonnie	Clark	3916	Heffron St	Stevens Point, WI 54481					
James & Sharon	Clawson	3106	Oak Ave	Stevens Point, WI 54481					
Timothy & London	Cooper	3209	Channel Dr	Stevens Point, WI 54481					
	D & S Denicke Property LLC	2633	Sunset Blvd #5	Stevens Point, WI 54481					
Michael	Derer	2701	Sunset Blvd #2A	Stevens Point, WI 54481					
Jack & Mildred	Eckberg	3209	Dan's Dr	Stevens Point, WI 54481					
David & Pamela	Enerson	3325	Della St	Stevens Point, WI 54481					
Elizabeth	Fakazis & Helena Alden	3050	Heffron St	Stevens Point, WI 54481					
Terry & Linda	Fawley	3273	Dan's Dr	Stevens Point, WI 54481					
	Felmanagement LLC	3832	Heffron St	Stevens Point, WI 54481					
Thomas & Cheryl	Feltz	3115	Feltz Ave	Stevens Point, WI 54481					
Albert	Feltz Jt Revocable Trust	lots	Island View Ct	Stevens Point, WI 54481					
	Feltz Lumber Co Inc	3737	Minnesota Ave	Stevens Point, WI 54481					
John & Kimberly	Fiers	3016	Della St	Stevens Point, WI 54481					
Mitchell	Fisher & Elizabeth Fulton	3200	Clifford St	Stevens Point, WI 54481					
Daniel & D'Andra	Francis	3331	Dan's Dr	Stevens Point, WI 54481					
Carrie	Freeberg & Joseph Senn	3300	Dan's Dr	Stevens Point, WI 54481					
Gregory & Amanda	Friese	3306	April Ln	Stevens Point, WI 54481					
Wayne & Jean	Ganser	3249	Dan's Dr	Stevens Point, WI 54481					
Kenneth	Glazer & Ann Gibbs-Glazer	3608	Heffron St	Stevens Point, WI 54481					
Steven & Mary	Gonske	3257	Soo Marie Av	Stevens Point, WI 54481					
Anthony & Jeanne	Gundrum	3141	Channel Dr	Stevens Point, WI 54481					
Jane	Halbach	3043	Channel Dr	Stevens Point, WI 54481					
Orville & Kim	Halverson	3139	Dan's Dr	Stevens Point, WI 54481					
Dr. Gurdon	Hamilton	3133	Channel Dr	Stevens Point, WI 54481					
David & Lynn	Holborn	3201	Channel Dr	Stevens Point, WI 54481					
Sean P	Holland & Kristin Peterson	3280	Thompson Ct	Stevens Point, WI 54481					
Lynn	Houlihan	224	Hummel La	Stevens Point, WI 54481					
Gary	Hurm & Susan Breitner	3224	Jay Ct	Stevens Point, WI 54481					
Thadd & Kathryn	Jacobs	3008	Della St	Stevens Point, WI 54481					
Brian & Susan	Jensen	3372	Bonnie Bay Rd	Stevens Point, WI 54481					
Joseph	Jersey	3233	Channel Dr	Stevens Point, WI 54481					
John and Kimberly	Jones	3724	Heffron St	Stevens Point, WI 54481					
Keith & Beth	Karr	4000	Heffron ST	Stevens Point, WI 54481					
Paul & Debora	Katz	4009	Nebel St	Stevens Point, WI 54481					
John & Linda	Kedrowski	3291	Thompson Ct	Stevens Point, WI 54481					
Jean	Kewer	3035	Channel Dr	Stevens Point, WI 54481					
Tanner & Melinda	King	3100	Della St	Stevens Point, WI 54481					
Alex	Kiser	3340	Dan's Dr	Stevens Point, WI 54481					
Anthony & Brenda	Koepfel Revocable Trust	3000	Della St	Stevens Point, WI 54481					

First	Last	Str #	Str Addr	Property City St Zip	Mtg Q1 2020	Mtg Q2 2020	Mtg Q3 2020	Annual 2020	Mtg Q4 2020
Daniel & Bridget	Koosmann	3265	Dan's Dr	Stevens Point, WI 54481					
Kathleen	Kreisa	3180	Dan's Dr	Stevens Point, WI 54481					
David & Theresa	Kroening	3324	Dan's Dr	Stevens Point, WI 54481					
David & Patricia	Kulhanek	2701	Sunset Blvd #4A	Stevens Point, WI 54481					
Christopher	Ladwig	3732	Heffron St	Stevens Point, WI 54481					
Bernie & Labonna	Landerman	3350	Bonnie Bay Ct	Stevens Point, WI 54481					
James & LaNaeh	Laszewski	1907	Locust St	Stevens Point, WI 54481					
Jeanne	Lemmens Trust	3608	Heffron St	Stevens Point, WI 54481					
Wayne	Lerand & Judith Berly	3216	Clifford St	Stevens Point, WI 54481					
Marc & Debra	Levy	3221	Dan's Dr	Stevens Point, WI 54481					
Charles A	Long	3531	Yvonne Dr	Stevens Point, WI 54481					
Beverly	Lopez	106	McDill Av	Stevens Point, WI 54481					
Laurie	Low	2701	Sunset Blvd #1A	Stevens Point, WI 54481					
Kris	Mallek & Elizabeth Gaedtke	3189	Dan's Dr	Stevens Point, WI 54481					
Bill & Pat	Maronek Revocable Trust	3140	Dan's Dr	Stevens Point, WI 54481					
Alan & Debra	Marten	3701	Heffron St	Stevens Point, WI 54481					
Kevin & Erin	McAdam	2633	Sunset Blvd. #5	Stevens Point, WI 54481					
Oscar Urrita	& Pamela Mickler	3109	Channel Dr	Stevens Point, WI 54481					
Bill & Jenny	Mengel	2959	Channel Dr	Stevens Point, WI 54481					
Michael	Metcalf	3170	Dan's Dr	Stevens Point, WI 54481					
Christopher & Amy	Meyer	3916	Bonnie Bay Ct	Stevens Point, WI 54481					
Mark and Cynthia	Milkowski	3314	Bonnie Bay Rd	Stevens Point, WI 54481					
Dean E & Jill M	Miller	3216	Della St	Stevens Point, WI 54481					
Jeffrey & Jody	Minton	3241	Channel Dr	Stevens Point, WI 54481					
David	Moodie	lot	Bonnie Bay Rd	Stevens Point, WI 54481					
Daryl & Gwen	Morey	3309	Dan's Dr	Stevens Point, WI 54481					
Gordon & Julie	Mouw	3199	Dan's Dr	Stevens Point, WI 54481					
David & Gail	Muraski	3155	Dan's Dr	Stevens Point, WI 54481					
Michael & Amy	Murphy	3700	Heffron St	Stevens Point, WI 54481					
Chad	Murphy & Margarita Renteria	3017	Channel Dr	Stevens Point, WI 54481					
Jack & Connie	Negaard	3325	Yvonne Dr	Stevens Point, WI 54481					
John & Sara	Oberthaler	2925	Channel Dr	Stevens Point, WI 54481					
Christopher & Colleen	Okray	3808	Heffron St	Stevens Point, WI 54481					
Ralph	Olsen	3117	Channel Dr	Stevens Point, WI 54481					
Gregory & Krista	Olson	3317	Della Street	Stevens Point, WI 54481					
Robert & Mary	Ornowski	3289	Thompson Ct	Stevens Point, WI 54481					
Steven & Mary	Oswald	3800	Heffron St	Stevens Point, WI 54481					
Thomas & Lisa	Patterson	3232	Jay Ct	Stevens Point, WI 54481					
Kenneth	Pepowski	2951	Channel Dr	Stevens Point, WI 54481					
Leslie	Peters	3900	Heffron St	Stevens Point, WI 54481					
Heather & Nathan	Pezewski	3200	Jay Ct	Stevens Point, WI 54481					
Michael	Phillips & Carol Buckley et al	1807	School St	Stevens Point, WI 54481					
David & Diane	Pozarski	1809	School St	Stevens Point, WI 54481					
Don & Patricia	Prebs	3317	Soo Marie Av	Stevens Point, WI 54481					
David & Paulette	Quick	2633	Sunset Blvd #1	Stevens Point, WI 54481					
William	Radue	3265	Soo Marie Av	Stevens Point, WI 54481					
Carl & Lynn	Rasmussen	3136	Dan's Dr	Stevens Point, WI 54481					
Arthur & Susan	Reinhardt	3113	Channel Dr	Stevens Point, WI 54481					
Steve	Richardson	3315	Della St	Stevens Point, WI 54481					
ZACHARY & SARAH	Roehder	3024	Della St	Stevens Point, WI 54481					
JUSTIN & KOREN	Rohde	3281	Dan's Dr	Stevens Point, WI 54481					
Fran	Roman	100	Bremmer St	Stevens Point, WI 54481					
Arthamae	Sadlemyer	3125	Channel Dr	Stevens Point, WI 54481					
Richard & Lorraine	Schedler	3901	Nebel St	Stevens Point, WI 54481					
David & Deborah	Scheer	1925	Locust St	Stevens Point, WI 54481					
Eric	Schmies	3840	Heffron St	Stevens Point, WI 54481					
Lisa & Andy	Scott	231	Vivian's La	Stevens Point, WI 54481					
Kevin & Erin	Seegert	3716	Heffron St	Stevens Point, WI 54481					
Scott & Leona	Sexton	3380	Bonnie Bay Rd	Stevens Point, WI 54481					

Diquat Chemical Fact Sheet

Formulations

Diquat, or diquat dibromide, is the common name of the chemical 6,7-dihydrodipyrido (1,2-a:2',1'-c) pyrazinediium dibromide. Originally registered by the EPA in 1986, diquat was reregistered in 1995 and is currently being reviewed again. It is sold for agricultural and household uses as well as for use on certain floating-leaf and submersed aquatic plants and some algae. The aquatic formulations are liquids: two of the more commonly used in Wisconsin are Reward™ and Weedtrine-D™ (product names are provided solely for your reference and should not be considered endorsements).

Aquatic Use and Considerations

Diquat is a fast-acting herbicide that works by disrupting cell membranes and interfering with photosynthesis. It is a non-selective herbicide and will kill a wide variety of plants on contact. It does not move throughout the plants, so will only kill parts of the plants that it contacts. Following treatment, plants will die within a week.

Diquat will not be effective in lakes or ponds with muddy water or where plants are covered with silt because it is strongly attracted to silt and clay particles in the water. Therefore, bottom sediments must not be disturbed during treatment, such as may occur with an outboard motor. Only partial treatments of ponds or bays should be conducted (1/2 to 1/3 of the water body). If the entire pond were to be treated, the decomposing vegetation may result in very low oxygen levels in the water. This can be lethal to fish and other aquatic organisms. Untreated areas can be treated 10-14 days after the first treatment.

Diquat is used to treat duckweed (*Lemna* spp.), which are tiny native plants. They are a food source for waterfowl but can grow thickly and become a nuisance. Navigation lanes through cattails (*Typha* spp.) are also

maintained with diquat. Diquat is labeled for use on the invasive Eurasian watermilfoil (*Myriophyllum spicatum*) but in practice is not frequently used to control it because other herbicide options are more selective.

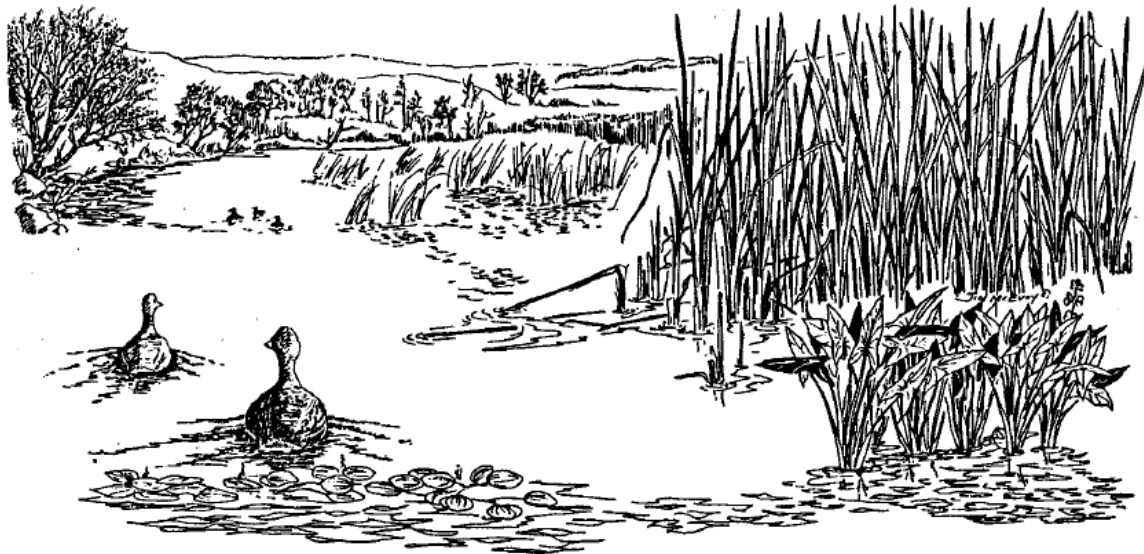
Post-Treatment Water Use Restrictions

There are no restrictions on swimming or eating fish from water bodies treated with diquat. Treated water should not be used for drinking water for one to three days, depending on the concentration used in the treatment. Do not use treated water for pet or livestock drinking water for one day following treatment. The irrigation restriction for food crops is five days, and for ornamental plants or lawn/turf, it varies from one to three days depending on the concentration used.

Herbicide Degradation, Persistence and Trace Contaminants

Diquat is not degraded by microbes. When applied to a waterbody, diquat binds with the organic matter in the sediment indefinitely. It does not degrade and will accumulate in the sediments. Diquat is usually detectable in the water column for less than a day to ~35 days after treatment. Diquat will remain in the water column longer when treating a waterbody with sandy soils due to the low organic matter and clay content. Because of its persistence and very high affinity for the soil, diquat does not leach into groundwater.

Ethylene dibromide (EDB) is a trace contaminant in diquat products. It originates from the manufacturing process. EDB is a carcinogen, and the EPA has evaluated the health risk of its presence in formulated diquat products. The maximum level of EDB in diquat dibromide is 10 ppb (parts per billion), it degrades over time, and it does not persist as an impurity.



Impacts on Fish and Other Aquatic Organisms

At application rates, diquat does not have any apparent short-term effects on most of the aquatic organisms that have been tested. However, certain species of important aquatic food chain organisms such as amphipods and *Daphnia* (water fleas) can be adversely affected at label application rates. Direct toxicity and loss of habitat are believed to be the causes. Tests on snails have shown that reproductive success may be affected, as well. These organisms only recolonize the treated area as vegetation becomes re-established.

Laboratory tests indicate walleye are the fish most sensitive to diquat, displaying toxic symptoms when confined in water treated with diquat at label application rates. Other game and panfish (e.g. northern pike, bass, and bluegills) are apparently not affected at these application rates. Limited field studies to date have not identified significant short or long-term impacts on fish and other aquatic organisms in lakes or ponds treated with diquat.

The bioconcentration factors measured for diquat in fish tissues is low. Therefore, bioconcentration is not expected to be a concern with diquat.

Human Health

The risk of acute exposure to diquat would be primarily to chemical applicators. Diquat

causes severe skin and eye irritation and is toxic or fatal if absorbed through the skin, inhaled or swallowed. Wearing skin and eye protection (e.g. rubber gloves, apron, and goggles) to minimize eye and skin irritation is required when applying diquat.

The risk to water users of serious health impacts (e.g. birth defects and cancer) is not believed to be significant according to the EPA. Some risk of allergic reactions or skin irritation is present for sensitive individuals.

For Additional Information

Environmental Protection Agency
Office of Pesticide Programs
www.epa.gov/pesticides

Wisconsin Department of Agriculture, Trade,
and Consumer Protection
<http://datcp.wi.gov/Plants/Pesticides/>

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

Wisconsin Department of Health Services
<http://www.dhs.wisconsin.gov/>

National Pesticide Information Center
1-800-858-7378
<http://npic.orst.edu/>

