1203 Storbeck Drive Waupun, WI 53963

Tel 920-324-8600 Fax 920-324-3023

www.bonestroo.com



October 21, 2009

Tri-Lakes Association C/O Bill Iwen E5401 12<sup>th</sup> Road Algoma, Wisconsin 54201

Re: Aquatic Plant Management Report for Tri-Lakes Client: Tri-Lakes Association Client Project No.: 004020-09002-0

Dear Tri-Lakes Association members:

The Tri-Lakes Association (the Association) is a group responsible for the management of East and West Alaska Lakes' and Krohns Lake's aquatic invasive species (AIS), *Myriophyllum spicatum* (Eurasian watermilfoil – EWM) and *Potamogeton crispus* (curly-leaf pondweed - CLP). Bonestroo, Inc (formerly Northern Environmental) was contacted by the Association to provide a chemical herbicide treatment and survey of these AIS. Bonestroo furnished all labor, materials, tools and equipment necessary to perform all operations in connection with the chemical application of herbicides in select locations of the Tri-Lakes. This report provides a summary of observations, conclusions and recommendations for the chemical treatment of AIS growth for 2009 and upcoming 2010 season.

## **PROJECT SUMMARY**

This Aquatic Plant Management Report was produced as part of the aquatic plant management of East Alaska, West Alaska, and Krohns Lakes for 2009. The goal of the project was to control stands of EWM and CLP, encourage growth of native aquatic plants that are out competed by AIS, help improve the health of the lake ecosystem by restoring native habitat, and improve the recreational and aesthetic value of the three lakes. The report reviews existing and historical data for the lakes and activities that were conducted during 2009.

## BACKGROUND

The Tri-Lakes consists of three lakes, Krohns, East Alaska, and West Alaska, in the town of Pierce, Kewaunee County, Wisconsin. The characteristics of each lake are described below.

Lake	Туре	Surface Area (acres)	Max Depth (ft)	Shoreline (mi)
East Alaska	Seepage	53	41	1.4
West Alaska	Seepage	20	50	1.03
Krohns	Spring	21	38	0.88

Eurasian water-milfoil (*Myriophyllum spicatum* – EWM) was confirmed in the Tri-Lakes in 1993 by the Wisconsin Department of Natural Resources (WDNR). Northern Environmental completed aquatic plant surveys on Krohns and West Alaska Lakes in 2003 and observed EWM. No management efforts were implemented for Aquatic Invasive Species (AIS) control until 2005 when approximately 1.93 acres of EWM and 0.2 acres of CLP were chemically treated across the Tri-Lakes. The WDNR completed an aquatic plant survey on Krohns Lake in 2006 and did not observe EWM

Northern Environmental completed an AIS evaluation plant survey in May 2007 and observed CLP in all three lakes but no EWM was observed. WDNR conducted an aquatic plant survey on Krohns Lake in 2007 and observed EWM at one sample location. Northern Environmental completed an Aquatic Invasive Species Prevention and Control Strategy (AISPCS) for the Association in 2007 using data from the aforementioned surveys. The 2007 AISPCS outlines actions for aquatic plant management and areas appropriate for chemical treatment.

Only CLP was managed and treated in 2008 with 1.00 acre treated across all three lakes. No EWM was not noticed during the pre-treatment survey, but was found on Krohns Lake and East Alaska Lake during the post-treatment surveys, prompting management actions of EWM for 2009.

## 2009 AQUATIC PLANT MANAGEMENT

The Association contracted Bonestroo for the 2009 chemical treatment of EWM and/or CLP. Tri-Lakes Association was successfully issued a permit to chemically treat up to 5.5 cumulative acres of EWM and/or CLP for the 2009 season by the Wisconsin Department of Natural Resources (WDNR). Permitted acres per lake are as follows: Krohns Lake – 1.0 acre of EWM and 0.5 acres of CLP, West Alaska Lake – 1.0 acre of EWM and 0.5 acres of CLP, East Alaska Lake – 1.5 acres of EWM and 1.0 acres of CLP. Copies of the permits are included in Attachment A.

Before treatments began, a pre-treatment survey was necessary to verify the presence of EWM and/or CLP within the proposed treatment areas outlined in the permit. The survey was completed on May 11, 2009. On East Alaska Lake, no CLP was present with only 0.75 acres of EWM mapped, 0.25 acres of CLP was present on West Alaska Lake, and 0.5 acres of EWM was mapped on Krohns Lake.

Chemical treatment of all areas mapped during the pre-treatment survey was completed on June 1, 2009. All areas mapped during the pre-treatment survey were treated appropriately. For EWM growth, DMA 4<sup>®</sup> was applied at a rate of 1.0 ppm per acre foot (approximately four gallons per acre). Areas of CLP growth were treated with Aquathol K<sup>®</sup> at a rate of 1.0 - 1.5 (approximately four gallons per acre). The products were selected in order to ensure adequate contact and control of target vegetation. In compliance with regulations, treatment records were completed and are included in Attachment B. Treatment areas are shown in Figures 1-3.

In accordance with the treatment process, a post-treatment survey was conducted on July 23, 2009 to verify treatment success. During the post-treatment survey, remaining and new areas of EWM and CLP were mapped, as shown in Figures 1-3.

## RESULTS

The affect of the chemical treatment was determined by examining the relative abundance and distribution of remaining aquatic macrophytes following treatment. Treatment on West Alaska Lake showed a 100% success rate as no CLP was found during the post treatment survey. However, since turions (reproductive structures of CLP) can survive in lake sediment for five or more years, historical areas of CLP totaling 0.12 acres was mapped to be surveyed in 2010 prior to treatment to verify the presence of absence of CLP (Figure 1). East Alaska Lake was treated for 0.75 acres in 2009 with 0.36 acres remaining after treatment (a 52% success rate). All remaining areas of EWM are within shallow water (3 feet or less – Figure 2). Krohns Lake was treated for 0.5 acres of EWM. Though surveying of the treatment area found no remaining EWM (100% success), further exploration of historical AIS areas located a 0.9 acre area containing both EWM and CLP (Figure 3).

In total, areas treated for EWM across all three lakes totaled 1.25 acres while 0.36 acres remained within treatment areas (71% success). Curly-leaf pondweed was treated on West Alaska Lake only with no plants found during the post-treatment survey and a 0.12 acre area of historical CLP presence mapped for expected 2010 CLP growth. New AIS locations were found in Krohns Lake and totaled 0.9 acres.

## MANAGEMENT SUGGESTIONS

It is important that appropriate management actions continue on a yearly basis to ensure that nuisance invasive aquatic plant growth does not reach unmanageable levels. As seen in 2009, aquatic plant growth specifically EWM and CLP were reduced from levels seen prior to management activities within treated areas. Though CLP was not found during the post-treatment survey in treated areas, historical growth areas of CLP should be re-examined next spring. CLP turions can persist in lake bed sediments for upwards of five years and are not affected by treatment activities unless actively growing. Some re-growth of CLP is expected by next year. Currently, multiple-year treatments of the same area have reduced the plant. 1.02 acres of CLP were mapped for treatment in 2010. Of these areas, 0.12 acres are historical beds on West Alaska Lake and 0.90 acres are new beds on Krohns Lake.

1.26 acres of EWM were mapped during the fall survey across all lakes. This is less than what has historically been in the Lakes within the past five years. East Alaska Lake contains 0.36 acres and Krohns Lake has 0.90 acres of EWM. All areas of EWM are recommended to be treated in 2010.

In light of the past year's chemical treatment success, we recommend continued surveys, mapping, and chemical treatment of EWM and CLP in 2010 to ensure control. Though both AIS have been reduced from historical levels, complete extirpation of these AIS from the Tri-Lakes is unlikely. Current populations of AIS will fluctuate yearly and control actions should be altered accordingly. It is possible, if the Association is interested, as AIS populations come under control to a small and more manageable size, that Association members can monitor the lake for historic and new AIS infestations and contract with a qualified consultant on as needed basis, as a cost saving measure.

Because of the Association's proactive approach in dealing with AIS, the current populations of CLP and EWM within the Tri-Lakes are dwindling while native plants are reestablishing in numbers and diversity, improving the health and use opportunities of the lakes. However, the Tri-Lakes Association should continue to be involved in some type of aquatic plant management program to help manage nuisance aquatic plant growth of EWM and CLP posing recreational hazards to riparian property owners and visitors. EWM and CLP are extremely opportunistic plants and can grow to nuisance levels in a very short period of time. Continued management must occur to ensure the health, aesthetic and recreational value of the lake is not degraded.

The Tri-Lakes Association must remain proactive in their approach. With the Association's continued commitment to ensuring the health, aesthetic, and recreational values of East Alaska, West Alaska, and Krohns Lake are preserved with active aquatic plant management, the quantity of nuisance aquatic plant growth and exotic species such as EWM and CLP found on the lakes will be appropriately controlled.

Bonestroo appreciates working for the Association this past treatment season and we look forward to working with you on future projects. Please feel free to contact Bonestroo at (800) 498-3921 if you have any questions regarding the 2009 chemical treatment or with additional questions or concerns.

Sincerely,

BONESTROO

James T. Scharl Graduate Scientist/WI Licensed Applicator

Attachments



## FIGURES

2009 POST-TREATMENT RESULTS









# ATTACHMENT A

WDNR CHEMICAL AQUATIC PLANT CONTROL PERMITS



## State of Wisconsin \ DEPARTMENT OF NATURAL RESOURCES

Jim Doyle, Governor Matthew J. Frank, Secretary Ronald W. Kazmierczak, Regional Director Northeast Region Headquarters 2984 Shawano Ave. Green Bay, Wisconsin 54313-6727 Telephone 920-662-5100 FAX 920-662-5413 TTY Access via relay - 711

April 24, 2009

Tri-Lakes Association C/O Bill Iwen E5401 12th Road Algoma, WI 54201

Permit No: NER-09-098-31 Fee received: \$120.00

Subject: 2009 permit to chemically treat aquatic plants in East and West Alaska Lakes, Kewaunee County.

Dear Tri-Lakes Association:

The Department has received and reviewed your application to chemically treat invasive aquatic plants (Curly-leaf pondweed and Eurasian watermilfoil) in up to 4 acres in East and West Alaska Lakes in Kewaunee County. Your permit application meets the minimum requirements by law and a permit is being issued. Issuance of the permit is not an endorsement or approval for the actions authorized. The permit is being issued subject to the permit conditions listed below.

## PERMIT CONDITIONS

- 1. Pesticide application warning sign postings must be visible from both the water and shore per NR 107.08(7)(a).
- 2. Treatment for Curly-leaf Pondweed and Eurasian Watermilfoil must be completed when the water temperature is near 60°F, or before turions and native plants have become established. If the temperature is too warm (68°F+) and/or turions and native plants have become established, treatment may be postponed or denied. Aquathol K treatment rates can not exceed 1.5 mg/l.
- 3. You must notify Mary Gansberg of the Department of Natural Resources at 920-662-5489 at least 4 working days prior to treatment.
- 4. The permit holder, according to NR 107.08(8), shall submit the enclosed Aquatic Plant Management Treatment Record for treatment as follows:
  - 1. Immediately, if any unusual circumstances occur during treatment.
  - 2. Within 30 days, if treatment occurs.
  - 3. By October 1 of this year if no treatment occurred.



EEW Al lakes

State of Wisconsin Department of Natural Resources Aquatic Plant Manager

## PERMIT APPLICATION FOR CHEMICAL AQUATIC PLANT CONTROL Form 3200-4 Rev.3-99

NOTE: Use of this form is required by the Department for any application field pursuant s. 281.17(2). Wis. Stats. And Chapter NR 107, Wis. Adm. Code. The Department will not consider your application unless you complete and submit this application form. Personally identifiable information requested on this form is not likely to be used for purposes, other than that for which it is originally being collected.

DNR USE ONLY	]
ID Number NEK-09-098-3	1
County Code 3 /	
Waterbody Number	
94200+ 943	00

## SECTION I. APPLICATION DATA

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.

Home Address	Name Northern Environmental Technologies, Inc. Consultant for: Street or Route 1203 Storbeck Drive City, State, Zip Waupun, WI 53963 Telephone Number (include area code) 920-324-8600	Lake Address	Name Tri-Lakes Associ C/o Bill Iwen Street or Route E5401 12 <sup>th</sup> Road City, State, Zip Algoma, WI 54201 Telephone Number See Consultant for N	ation (include area code) Acre Information.
SECT	ION II. EDCATION OF PLANT CONTROL			
Wateri East A	body To Be Treated (waterbody where treatment area is located) laska and West Alaska Lakes	Lak	e Surface Area 2 20 ac. respectively	Estimated Surface Area That Is 10 Feet or Less
County Kewau		Nan	tes of Adjacent Riparian	Property Owners (use additional sheets if
Towns 24N	hip Range Section 25E 19 & 20	1. A	ll participants are riparia	n property owner's of Tri-Lakes Association
Name Northe	of Applicator or Firm m Bavironmental Technologies, Inc.	2.		
Street of 1203 S	or Route torbeck Drive	3.		
City, S Waupu	tate, Zip Code n, Wisconsin 53963	Nan Rep	e of Lake Property Own resentative (if none, plea	ers' Association Representative or Lake District se indicate
Busine	one Number (include area code) ss: 920-324-8600 Business: 800-498-3921	Bi	ll Iwen	
Applica Applica	ator Certification Number for Category 5, Aquatic Pesticide ation 077803	NLY.	Date Verified w/DATC Certification Expiratio	CP n
Busine: 93-013	ss Location License Number (if applicable 597-011079	K USE O	Dave Verified w/ DAT Expiration Date	CP
Kestrici	ed Use Pesticide License Number	DNR	Date Verified w/DAT( Expiration Date	CP CP

Area(s) proposed for Control (Note details in permit cover letter for final permitted sizes of treatment areas.)

A. Shore Length ft. x Distance From Shore ft. / 43,560 ft = Estimated Acreage. Average Depth \_\_ft.

B. Shore Length \_\_ ft. x Distance From Shore \_\_ ft. / 43,560 ft = \_\_ Estimated Acreage. Average Depth \_\_\_\_ ft.

C. Shore Length \_\_\_\_ ft. x Distance From Shore \_\_\_ ft. / 43,560 ft = \_\_\_\_ Estimated Acreage. Average Depth \_\_\_\_\_ ft.

D. Shore Length \_\_ ft. x Distance From Shore \_\_ ft. / 43,560 ft = \_\_\_ Estimated Acreage. Average Depth \_\_\_\_ ft.

E. Shore Length \_\_ ft. x Distance From Shore \_\_ ft. / 43,560 ft = \_\_ Estimated Acreage. Average Depth \_\_\_\_ ft.

F. Shore Length \_\_ ft. x Distance From Shore \_\_ ft. / 43,560 ft = \_\_\_ Estimated Acreage. Average Depth \_\_\_\_ ft.

### Total Estimated Acreage=4.0 Acres

If the estimated acreage is greater than 10 acres, or is greater than 10 percent of the estimated are 10 feet or less in depth in Section II, please complete and attach Form 3200-4A, 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	

1

SECTION IV. REASONS FOR AQUATIC PLANT CONTROL					
Purpose of aquatic Plant Control	Nuisance Caused By				
<ul> <li>1. Reduce nuisance algae accumulation</li> <li>2. Maintain navigation channel for common use</li> <li>3. Maintain private access for boating</li> <li>4. Maintain private access for fishing</li> <li>5. Improve swimming</li> <li>6. Control of purple loosestrife</li> <li>7. Other: Prevent spread and infestation of curly-leaf pondweed</li> </ul>	<ul> <li>1. Algae</li> <li>2. Emergent water plants (majority of leaves and stems growing above water surface, e.g. cattails, buhushes)</li> <li>3. Floating water plants (majority of leaves floating on water surface, e.g. waterlilies, duckweed)</li> <li>4. Submerged water plants (leaves and stems below water surface, flowering parts may be exposed, e.g., EWM)</li> <li>5. Other:</li> </ul>				
Name of Plants, if known NOTE: Different plants require different chemicals for effective					

treatment. Do not purchase chemical before identifying plants.

Target Species: Curly Leaf Pondweed & Eurasian water-milfoil

SECTION V. CHEMICAL CONTROL	Equiple?	If No Why Not?
Alternatives to Chemical Control	reasible?	II INO, WILY ROL!
1. Mechanical harvesting	🗌 Yes 🖾 No	Spreads plant debris and they can not get in shallow waters
2. Hand pulling	🗌 Yes 🖾 No	Too dense
3. Hand raking	🗌 Yes 🖾 No	Too dense
4. Hand cutting	🗌 Yes 🛛 No	Too dense
5. Sediment screens/covers	🗋 Yes 🛛 No	Not effective
6. Dredging	🗌 Yes 🖾 No	Too costly
7. Lake drawdown	🗌 Yes 🛛 No	Not a control option for immediate concerns
8. Nutrient controls in watershed	🗌 Yes 🛛 No	Not a control option for immediate concerns
9. Other:	🗌 Yes 📋 No	

NOTE: If proposed treatment involves multiple properties, please consider feasibility of EACH alternative for EACH property owner. If you checked yes to any of the alternatives listed above, please explain your decision to use chemical controls:

Trade Name of Proposed Chemical(s)	Method of Application
Aquathol K (CLP), and DMA 4 IVM (EWM)	Northern Environmental's liquid application system.
Which Chemicals or Other Control Options Have Been Tried Be	fore On The Proposed Site, and What Were the Results

The proposed chemical has been used statewide to selectively control the target plant species present by our firm and has been successful in selectively controlling the target plant species currently present.

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



## State of Wisconsin \ DEPARTMENT OF NATURAL RESOURCES

Jim Doyle, Governor Matthew J. Frank, Secretary Ronald W. Kazmierczak, Regional Director Northeast Region Headquarters 2984 Shawano Ave. Green Bay, Wisconsin 54313-6727 Telephone 920-662-5100 FAX 920-662-5413 TTY Access via relay - 711

April 24, 2009

Tri-Lakes Association C/O Bill Iwen E5401 12th Road Algoma, WI 54201 Permit No: NER-09-099-31

Fee received: \$70.00

Subject: 2009 permit to chemically treat aquatic plants in Krohns Lake, Kewaunee County.

Dear Tri-Lakes Association:

The Department has received and reviewed your application to chemically treat aquatic plants (Curlyleaf pondweed and Eurasian watermilfoil) in up to 1.5 acres in Krohns Lake in Kewaunee County. Your permit application meets the minimum requirements by law and a permit is being issued. Issuance of the permit is not an endorsement or approval for the actions authorized. The permit is being issued subject to the permit conditions listed below.

## **PERMIT CONDITIONS**

- 1. Pesticide application warning sign postings must be visible from both the water and shore per NR 107.08(7)(a).
- 2. Treatment for Curly-leaf Pondweed and Eurasian Watermilfoil must be completed when the water temperature is near 60°F, or before turions and native plants have become established. If the temperature is too warm (68°F+) and/or turions and native plants have become established, treatment may be postponed or denied. Aquathol K treatment rates can not exceed 1.5 mg/l.
- 3. You must notify Mary Gansberg of the Department of Natural Resources at 920-662-5489 at least 4 working days prior to treatment.
- 4. The permit holder, according to NR 107.08(8), shall submit the enclosed Aquatic Plant Management Treatment Record for treatment as follows:
  - 1. Immediately, if any unusual circumstances occur during treatment.
  - 2. Within 30 days, if treatment occurs.
  - 3. By October 1 of this year if no treatment occurred.



State of Wisconsin Department of Natural Resources Aquatic Plant Manager

## PERMIT APPLICATION FOR CHEMICAL AQUATIC PLANT CONTROL Form 3200-4 Rev.3-99

DNR USE ONLY	
NER-09-099-	3/
County Code	
Waterbody Number 94700	

NOTE: Use of this form is required by the Department for any application field pursuant s. 281.17(2). Wis. Stats. And Chapter NR 107, Wis. Adm. Code. The Department will not consider your application unless you complete and submit this application form. Personally identifiable information requested on this form is not likely to be used for purposes, other than that for which it is originally being collected.

#### SECTION I. APPLICATION DATA

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 Northern Environmental Technologies, Inc. Consultant for:		Name Tri-Lakes Associa C/o Bill Iwen	ation
dress	Street or Route 1203 Storbeck Drive	ress	Street or Route E5401 12 <sup>th</sup> Road	
le Ad	City, State, Zip Waupun, WI 53963	s Add	City, State, Zip Algoma, WI 54201	
Hon	Telephone Number (include area code) 920-324-8600	Lake	Telephone Number See Consultant for M	(include area code) Aore Information.
SECT	ION II. LOCATION OF PLANT CONTROL			
Water Krohn	body To Be Treated (waterbody where treatment area is located) s Lake	Lake 21 a	e Surface Area cres	Estimated Surface Area That Is 10 Feet or Less in Depth 3.15 acres
County Kewaunee		Names of Adjacent Riparian Property Owners (use additional sheets if necessary)		
Township Range Section 24N 25E 05		1. All participants are riparian property owner's of Tri-Lakes Association		
Name of Applicator or Firm Northern Environmental Technologies, Inc.		2.	2.	
Street or Route 1203 Storbeck Drive		3.		
City, State, Zip Code		Name of Lake Property Owners' Association Representative or Lake District Representative (if none, please indicate		
Telephone Number (include area code) Business: 920-324-8600 Business: 800-498-3921		Bill Iwen		
Applic	ator Certification Number for Category 5, Aquatic Pesticide	LY	Date Verified w/DAT Certification Expiration	CP
Busine 93-013	sss Location License Number (if applicable 597-011079	USE ON	Dave Verified w/ DA' Expiration Date	ICP
Restric	ted Use Pesticide License Number	DNR	Date Verified w/DAT Expiration Date	СР

Area(s) proposed for Control (Note details in permit cover letter for final permitted sizes of treatment areas.)

A. Shore Length See Map ft. x Distance From Shore See Map ft. / 43,560 ft = See Map Estimated Acreage. Average Depth \_\_ft.

B. Shore Length \_\_\_\_ft. x Distance From Shore \_\_\_ft. / 43,560 ft = \_\_\_ Estimated Acreage. Average Depth \_\_\_\_\_ft.

C. Shore Length \_\_\_\_ft, x Distance From Shore \_\_\_\_ft. / 43,560 ft = \_\_\_\_ Estimated Acreage. Average Depth \_\_\_\_\_ft.

D. Shore Length \_\_ ft, x Distance From Shore \_\_ ft. / 43,560 ft = \_\_ Estimated Acreage. Average Depth \_\_\_\_ ft.

E. Shore Length \_\_ ft. x Distance From Shore \_\_ ft. / 43,560 ft = \_\_ Estimated Acreage. Average Depth \_\_\_\_ ft.

F. Shore Length \_\_\_\_\_ft, x Distance From Shore \_\_\_\_ft. / 43,560 ft = \_\_\_\_\_ Estimated Acreage. Average Depth \_\_\_\_\_\_ft.

#### Total Estimated Acreage=1.5 Acres

If the estimated acreage is greater than 10 acres, or is greater than 10 percent of the estimated are 10 feet or less in depth in Section II, please complete and attach Form 3200-4A, 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?		
$\Box$ Yes $\boxtimes$ No	Is this area within or adjacent to a sensitive area designated by the Department of Natural Resources?	

SECTION IV. REASONS FOR AQUATIC PLANT CONTROL					
Purpose of aquatic Plant Control	Nuisance Caused By				
<ol> <li>Reduce nuisance algae accumulation</li> <li>Maintain navigation channel for common use</li> <li>Maintain private access for boating</li> <li>Maintain private access for fishing</li> <li>S. Improve swimming</li> <li>Control of purple loosestrife</li> <li>Other: Prevent spread and severe infestation of curly-leaf pondweed</li> </ol>	<ul> <li>1. Algae</li> <li>2. Emergent water plants (majority of leaves and stems growing above water surface, e.g. cattails, buhushes)</li> <li>3. Floating water plants (majority of leaves floating on water surface, e.g. waterlilies, duckweed)</li> <li>4. Submerged water plants (leaves and stems below water surface, flowering parts may be exposed, e.g., EWM)</li> <li>5. Other:</li> </ul>				
Name of Plants, if known	E: Different plants require different shewies have for the				

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

Target Species: Curly Leaf Pondweed & Eurasian Water-milfoil

SECTION V. CHEMICAL CONTROL	·	
Alternatives to Chemical Control	Feasible?	If No, Why Not?
1. Mechanical harvesting	🗋 Yes 🖾 No	Spreads plant debris and they can not get in shallow waters
2. Hand pulling	🗋 Yes 🛛 No	Too dense
3. Hand raking	🗌 Yes 🛛 No	Too dense
4. Hand cutting	🗌 Yes 🛛 No	Too dense
5. Sediment screens/covers	🗌 Yes 🛛 No	Not effective
6. Dredging	🗌 Yes 🖾 No	Too costly
7. Lake drawdown	🗌 Yes 🖾 No	Not a control option for immediate concerns
8. Nutrient controls in watershed	🗌 Yes 🛛 No	Not a control option for immediate concerns
9. Other:	TYes No	

NOTE: If proposed treatment involves multiple properties, please consider feasibility of EACH alternative for EACH property owner. If you checked yes to any of the alternatives listed above, please explain your decision to use chemical controls:

Trade Name of Proposed Chemical(s)	Method of Application
Aquathol K (CLP) & DMA 4 IVM (EWM)	Northern Environmental's liquid application system.
which Chemicals of Other Control Options Have Been Tried Be	fore On The Proposed Site, and What Were the Results

The proposed chemical has been used statewide to selectively control the target plant species present by our firm and has been successful in selectively controlling the target plant species currently present.

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



# ATTACHMENT B

AQUATIC PLANT MANAGEMENT HERBICIDE TREATMENT RECORDS

State of Wisconsin Department of Natural Resources

Form 3200-111 (5/01)

Page 1 of 2

**NOTICE**: Completion of this form is a condition of the permit and provides records required by WDNR (NR107) and DATCP (ATCP 29.21 and 29.22). The Department may not issue you future permits unless you complete and submit this form. Personally identifiable information required on this form is not likely to be used for purposes other than that for which it is originally being collected. It may also be made available to requesters under 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 occured

Completion of this form along with the permit satisfies the requirements of WDNR (NR107) and DATCP (ATCP29.21 and 29.22).

General Permit Info	rmation										
Permit Number	Waterbody Name (including ponds, e.g., Smith Pond)										
NER-09-098-31		East & West Alaska Lakes									
County		Perm	Permit Holder Name								
Kewaunee		Nor	Northern Environmental Technologies, Inc.								
Treatment Information											
Treatment Date 06/01/2009	Starting Time (2 10:00	Time (24 hr) Ending Time ( 12:00			Water Temp (°C) 16.6° C	Ambi 18.	ent Air Temp (°C) 3° C	Wind Sp 0-5 m	peed (mph) ${ m ph}$	Wind Direction NE	
Other Conditions Noted	d (i.e., dead fish, s	spawnir	ng fish, algae	bloom, etc.	)						
None											
Onsite Supervision Pre	sent?	Yes	🛛 No	If Yes, Su	ipervisor Name						
Mixing and Loading Site 5 gallons liquid or 50 pc	e Location (if othe ounds dry)	er than l	business site	or from pre	packaged retail contai	ner or a	applied with equipme	nt with a t	otal capacity	of not more than	
Prepackaged Retail Co	ontainers										
Herbicide Treatment ar	nd Water Use Res	striction	Signs Poste	d In Accorda	ance With NR 107?	X Ye	es 🗌 No				
	Applicator	shall p	provide each	customer	with a free copy of e	ach pe	sticide label used (i	f request	ed)		
Applicator Informat	ion										
Individual Business Na	me							Telepho	one Number		
Northern Enviror	nmental Tech	nolog	gies, Inc.					920-3	24-8600		
Street Address											
1203 Storbeck D	rive										
City							State	Zip Cod	е		
Waupun							WI	53963	3		
Individuals Making Pes	ticide Application:	: Las	st Name		F	irst			Cer	tification #	
		Ne	elson		ŀ	Kevin			07	6523	
	Last Name First Certification #								tification #		
Scharl James 07780.						7803					
		Las	st Name		F	irst			Cer	tification #	
Name of Person Comp	leting Form				Signature		1/1		Date Signe	d	
James T. Scharl					James	26	hhund		06/04/20	009	
					1						

# Aquatic Plant Management Herbicide Treatment Record Form 3200-111 (5/01) Page 2 of 2

Sheet 2 of 2 Date: June 4, 2009

Treatment Site and Chemical Information (us	se attached	additional s	ite / herbicio	de sheet if nece	ssary)			
Oth No December Address / Fire No	Treated Shoreline	Treated Distance	Treated	Permitted Acreage	Sensitive	e Herbicide(s) Used /	Amount Applied	GPS Location
Site No, Property Name, Address / Fire No	Length (ft)	Off Shore	Acreage	(per property)	Area:	EPA Reg. Number(s)		Latitude / Longitude
East Alaska Lake			0.75	4.0	ΓΥ	DMA4 IVM #62/19-3	3.00 gal	
West Alaska Lake			0.25	4.0	□ Y	Aquathol K #4581-204	1.00 gal	
					□ Y			
					□ Y			
					Υ			
					□ Y			
					□ Y			
					□ Y			
					□ Y			
					□ Y			
					□ Y			
					□ Y			
					□ Y			
					□ Y			
					□ Y			
TOTAL			1.00	4.00	Y	Y         Aquathol K #4581-204 DMA 4 IVM #62719-3 <b>3.00 gal 1.00 gal</b>		
					□ Y			
Aquatics at Treatment Site: TS = Target Sp	ecies SP =	Species Pre	esent					
TS SP Site (s)	TS SP			Site (s)	TS SP	Site (s)	TS SP Other	Aquatics Site (s)
Cattail		white-stem p	ondwd			coontail East & West	_ 🗌 🖾 _ chara_	East & West
yellow pond lily	flat-stem pondwd					elodea <u>East</u>	_ <u> </u>	ondweed
white water lily	white water lily [] [] floating-leaf pondwd					tilamentous algae	- 님님	
			, <u> </u>	et			- 님님	
Image: The set of the set o			151		nlanktonic algae Fast & West			
robbins pondwd						spadderdock		

State of Wisconsin Department of Natural Resources

Form 3200-111 (5/01)

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**NOTICE**: Completion of this form is a condition of the permit and provides records required by WDNR (NR107) and DATCP (ATCP 29.21 and 29.22). The Department may not issue you future permits unless you complete and submit this form. Personally identifiable information required on this form is not likely to be used for purposes other than that for which it is originally being collected. It may also be made available to requesters under 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 occured

Completion of this form along with the permit satisfies the requirements of WDNR (NR107) and DATCP (ATCP29.21 and 29.22).

General Permit Info	rmation										
Permit Number	Permit Number Waterbody Name (including ponds, e.g., Smith Pond)										
NER-09-099-31	-099-31 Krohns Lake										
County		Perm	Permit Holder Name								
Kewaunee		Nor	Northern Environmental Technologies, Inc.								
Treatment Information											
Treatment Date 06/01/2009	Starting Time (2 12:15	24 hr)	Ending Time (24 hr 12:40	) Water Temp (° 16.6° C	3r Temp (°C)   Ambient Air Temp (°C)     6° C   18.3° C			peed (mph) ph	Wind Direction NE		
Other Conditions Noted	d (i.e., dead fish, s	spawnir	ng fish, algae bloom,	etc.)							
None											
Onsite Supervision Pre	sent?	Yes	No If Yes	, Supervisor Name							
Mixing and Loading Sit 5 gallons liquid or 50 pe	e Location (if othe ounds dry)	er than	business site or from	prepackaged retail c	ontainer or a	applied with equipme	nt with a to	otal capacity o	of not more than		
Prepackaged Retail Co	ontainers										
Herbicide Treatment ar	nd Water Use Res	striction	Signs Posted In Acc	ordance With NR 10	7? 🛛 Ye	es 🗌 No					
	Applicator	r shall j	provide each custor	ner with a free copy	of each pe	sticide label used (	if request	ed)			
Applicator Informat	ion										
Individual Business Na	Individual Business Name Telephone Number										
Northern Enviror	nmental Tech	nolog	gies, Inc.				920-3	24-8600			
Street Address			2 ·								
1203 Storbeck D	rive										
City State Zip Code											
Waupun	Waupun WI 53963										
Individuals Making Pes	ticide Application	: La	st Name		First			Cer	tification #		
		Ne	elson		Kevin	L		07	6523		
	Last Name First Certification #								tification #		
		Scharl James 077803						7803			
		La	st Name		First			Cer	tification #		
Name of Person Comp	leting Form			Signature	$\wedge$	211		Date Signe	d		
James T. Scharl	-			Ge	under l	hhund		06/04/20	009		
				0							

# Aquatic Plant Management Herbicide Treatment Record Form 3200-111 (5/01) Page 2 of 2

Sheet 2 of 2 Date: June 4, 2009

Treatment Site and Chemical Information (u	se attached	additional s	ite / herbicio	le sheet if neces	ssary)			
	Treated	Treated		Permitted				
	Shoreline	Distance	Treated	Acreage	Sensitive	Herbicide(s) Used /	Amount Applied	GPS Location
Site No, Property Name, Address / Fire No	Length (ft)	Off Shore	Acreage	(per property)	Area:	EPA Reg. Number(s)	(e.g., gals, lbs)	Latitude / Longitude
Krohns Lake			0.5	1.5	□ Y	DMA4 IVM #62719-3	2.00 gal	
					Y			
					□ Y			
					□ Y			
					□ Y			
					□ Y			
					□ Y			
					□ Y			
					□ Y			
					□ Y			
					□ Y			
					□ Y			
					<b>Y</b>			
					□ Y			
					□ Y			
TOTAL			0.5	1.5	<b>Y</b>	DMA 4 IVM #62719-3	2.00 gal	
					□ Y			
Aquatics at Treatment Site: TS = Target Sp	ecies SP =	Species Pr	esent			•		
TS SP Site (s)	TS SP			Site (s)	TS SP	Site (s)	TS SP Other	Aquatics Site (s)
cattail		white-stem p	ondwd			oontail	🗌 🖂 🛛 chara	
yellow pond lily		flat-stem pondwd			□ □ e	lodea	_ 🗌 📃 🛛 small p	ondweed
white water lily	floating-leaf pondwd				∐ ∏ fi	lamentous algae	_ 🛛 🖓	
U watershield	ershield 🔲 🔲 sago pondwd				ЦЦ ri	ichardson pondwd	_ 凵 凵	
□ □ large-leaf pondwd ⊠ ⊠ e. milfoil						linois pondwd	- 님님	
U     U     U     n. milfoil						lanktonic algae	- 님님	
I I I I robbins bondwd		wild celerv				paggergock		