



MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
WATER RESOURCES DIVISION

TREATMENT REPORT FOR CHEMICAL TREATMENT OF
NUISANCE AQUATIC PLANT AND/OR ALGAE GROWTH, OR SWIMMER'S ITCH

Failure to submit the treatment report form provided by the department is a violation of Part 33, and the rules promulgated thereunder and may result in civil or criminal penalties as specified in Part 33, Aquatic Nuisance Control, of the NREPA

Section A

Submit completed report postmarked
no later than November 30, even if no
treatment was undertaken.

Submit by e-mail to:

deq-wrd-anc@michigan.gov

Submit by mail to:

AQUATIC NUISANCE CONTROL
WATER RESOURCES DIVISION
MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
P.O. BOX 30458
LANSING, MI 48909-7958

Permittee Information		
Permit Number: ANC9800968		
Permittee Name: PLM Lake and Land Management		
Address: 8865 100TH Street		
City: Alto	State: MI	Zip: 49302
Phone Number: 616-891-1294 ext. 2000		
E-mail Address: Breg@plmcorp.net		
Body of Water Treated:: Portage Lake		County: Houghton

Section B - Treatment Information

Fill in a separate table for each treatment date.

Date of treatment (one date per table): 6/23/2015		Name of person applying chemical: Jason Broekstra, Benjamin Halbersma		Name of Company: PLM Lake and Land Management	
Effectiveness: <input checked="" type="checkbox"/> Good (70-100%) <input type="checkbox"/> Fair (50-69%) <input type="checkbox"/> Poor (Less than 50%) <input type="checkbox"/> Ineffective (0%) <input type="checkbox"/> Did not treat (skip to section E)					
CHEMICAL USED	METHOD OF APPLICATION	RATE OF APPLICATION (ex. 100 lbs/acre, 2.6 lbs/acre - foot)	TREATMENT AREA SIZE (acres)	TOTAL AMOUNT (ex. 4 gallons, 10 lbs.)	FOR CONTROL OF: (Plant and/or Algae names)
Chemical Brand: Renovate Max G EPA Reg #: 67690-50	Surface Application/injection	320lbs/acre (5' avg depth)	6.25 acres	2000 lbs	EWM
Chemical Brand: Renovate OTF EPA Reg #: 67690-42	Surface Application/injection	270lbs/acre (5' avg depth)	5.2 acres	1400 lbs	EWM
Chemical Brand: Sculpin G EPA Reg #: 67690-49	Surface Application/injection	160lbs/acre 320lbs/acre (5' avg depth)	12 acres 6 acres	3840 lbs	EWM

Date of treatment (one date per table): 7/22/2015		Name of person applying chemical: Jason Broekstra		Name of Company: PLM Lake and Land Management	
Effectiveness: <input checked="" type="checkbox"/> Good (70-100%) <input type="checkbox"/> Fair (50-69%) <input type="checkbox"/> Poor (Less than 50%) <input type="checkbox"/> Ineffective (0%) <input type="checkbox"/> Did not treat (skip to section E)					
CHEMICAL USED	METHOD OF APPLICATION	RATE OF APPLICATION (ex. 100 lbs/acre, 2.6 lbs/acre - foot)	TREATMENT AREA SIZE (acres)	TOTAL AMOUNT (ex. 4 gallons, 10 lbs.)	FOR CONTROL OF: (Plant and/or Algae names)
Chemical Brand: Renovate OTF EPA Reg #: 67690-42	Surface Application/injection	270lbs/acre (5' avg depth)	.44 acres	120 lbs	EWM

Chemical Brand: Renovate Max G EPA Reg #: 67690-50	Surface Application/injection	320lbs/acre	1 acre	320 lbs	EWM
Chemical Brand: Renovate OTF EPA Reg #: 67690-42	Surface Application/injection	270lbs/acre (5' avg depth)	.74 acres	200 lbs	EWM
Chemical Brand: Sculpin G EPA Reg #: 67690-49	Surface Application/injection	320lbs/acre (5' avg depth)	3.37 acres	1080 lbs	EWM

Date of treatment (one date per table): 8/18/2015		Name of person applying chemical: Jason Broekstra		Name of Company: PLM Lake and Land Management	
Effectiveness: <input checked="" type="checkbox"/> Good (70-100%) <input type="checkbox"/> Fair (50-69%) <input type="checkbox"/> Poor (Less than 50%) <input type="checkbox"/> Ineffective (0%) <input type="checkbox"/> Did not treat (skip to section E)					



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WATER RESOURCES DIVISION**

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CHEMICAL USED	METHOD OF APPLICATION	RATE OF APPLICATION (ex. 100 lbs/acre, 2.6 lbs/acre - foot)	TREATMENT AREA SIZE (acres)	TOTAL AMOUNT (ex. 4 gallons, 10 lbs.)	FOR CONTROL OF: (Plant and/or Algae names)
Chemical Brand: Renovate OTF EPA Reg #: 67690-42	Surface Application/injection	270lbs/acre (5' avg depth)	4.75 acres	1280 lbs	EWM

Chemical Brand: Renovate OTF EPA Reg #: 67690-42	Surface Application/injection	270lbs/acre (5' avg depth)	2.25 acre	600 lbs	EWM
Chemical Brand: Sculpin G EPA Reg #: 67690-49	Surface Application/injection	320lbs/acre (5' avg depth)	4 acres	1280 lbs	EWM

Date of treatment (one date per table): 9/28/2015	Name of person applying chemical: Jason Broekstra	Name of Company: PLM Lake and Land Management
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Effectiveness:
☒ Good (70-100%)
☐ Fair (50-69%)
☐ Poor (Less than 50%)
☐ Ineffective (0%)
☐ Did not treat (skip to section E)

CHEMICAL USED	METHOD OF APPLICATION	RATE OF APPLICATION (ex. 100 lbs/acre, 2.6 lbs/acre - foot)	TREATMENT AREA SIZE (acres)	TOTAL AMOUNT (ex. 4 gallons, 10 lbs.)	FOR CONTROL OF: (Plant and/or Algae names)
Chemical Brand: Renovate OTF EPA Reg #: 67690-42	Surface Application/injection	270lbs/acre (5' avg depth)	~2 acres	520lbs	EWM
Chemical Brand: Sculpin G EPA Reg #: 67690-49	Surface Application/injection	320lbs/acre (5' avg depth)	~2 acres	640lbs	EWM

Section C - Treatment Map(s) Please attach a map for each treatment date (one map for each table in Section B). Each map shall include: date, time, weather conditions, chemicals used in each treatment area and the species targeted in each treatment area.

Section D - Aquatic Plant Management (If the total treatment area for this waterbody is less than 10 acres you are not required to fill out Section D and you may skip to Section E).

1. Do you or a lake management consultant have a recent Aquatic Vegetation Survey or other lake management report that is not required by the ANC permit? ☒ Yes ☐ No

If so, and you are willing, please submit a copy of the field map and survey summary or lake management report.

2. If you or the lake management consultant is managing watermilfoil, have you obtained a genetic analysis of the watermilfoil population(s)? ☒ Yes

If yes, please provide the following information as well as a map of the sample locations:

Determination of genetic analysis: ☒ Hybrid ☐ Non-hybrid

Date(s) of sample(s): _____ Number of sample locations: _____

HERBICIDE RESISTANCE MANAGEMENT QUESTIONS:	CHECK ONE	IF YES, PLEASE EXPLAIN:
Do you have an herbicide tolerance/resistance management plan for this waterbody?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	See NPDES/PDMP
Has native watermilfoil occurred in this waterbody historically?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Genetic Analysis Required to Confirm
Has Eurasian watermilfoil occurred in this waterbody historically?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Genetic Analysis Required to Confirm
Have you monitored field response to herbicides?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Monitored After Each Treatment



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Have you obtained an herbicide susceptibility analysis (e.g., PlanTest)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Are you field testing different chemical protocols?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	If Required and If Appropriate
Are you rotating active ingredients so as to avoid herbicide resistance issues?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	When Ever Possible
Have you obtained a laboratory assay for response to treatment (e.g., EfficTEST)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	

Section E - Adverse Incident Documentation and Reporting

1. Was any person or non-target organism exposed to a chemical during or after the treatment which caused the person or non-target organism to suffer a toxic or adverse effect?

☐ Yes (if yes, please fill out the attached addendum to Section E)

☒ No (if no, proceed to Section F)

Section F - Certification and Signature

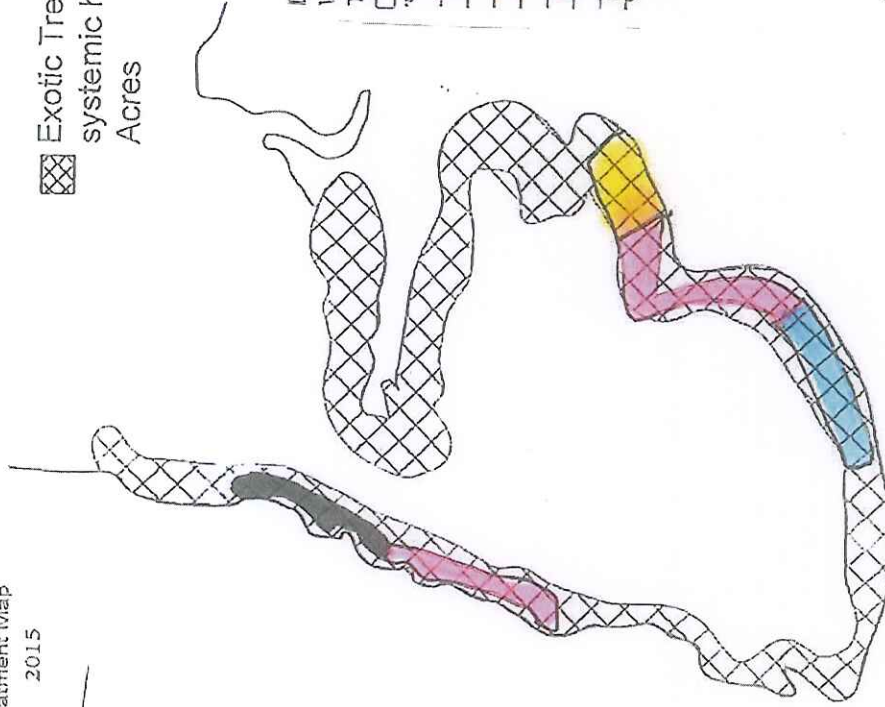
I, the undersigned, swear and affirm that the statements contained herein are true and correct and that the chemical treatments listed above were undertaken in accordance with the requirements of the permit and Part 33, Aquatic Nuisance Control, Natural Resources and Environmental Protection Act, 1994 PA, as amended.


Submitter's Signature

BreAnne Grabill
Submitter's Name (print)

12/1/2015
Date

Exotic Treatment Area using
systemic herbicides = 270
Acres



Date: 6-23-15 Time: 7:30-12 Temp: 60° F
Wind: L 10 H 10 Weather: Sun, Part Sun, Cloudy, Rain
Target: FWW CLP, Algae, Natives, Emergent, Other
☐ Treated entire permitted area ☐ Treated entire developed area ☐ Other
*See treatment record for herbicide used. If another was used, all herbicide substances should be reported separately.

1,920# Superm G @ 160#/ac ~12 acres
1,400# Renovate OTF @ 270#/ac ~5.2 acres
1,200# Renovate Max G @ 320#/ac ~6.25 acres
1,920# Superm G @ 320#/ac ~6 acres

avg. depth ~5 feet



.4 Miles

PIKE BAY


~450 Surface Acres (as shown)

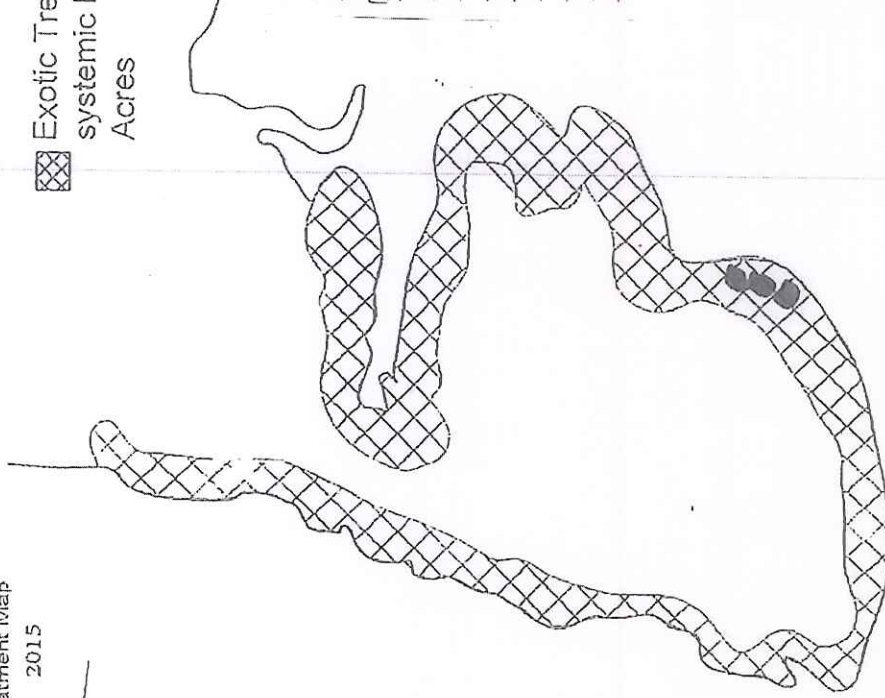
Houghton County

Chassell Township

Professional Land Management, P.O. Box 122, Chassell, MI 49815 Phone (907) 226-4424

KEVIN

 Exotic Treatment Area using
systemic herbicides = 270
Acres



Date: 7-22-15 Time: 8-10:30 Temp: 65 F
Wind: L M H Weather: Sun Part Sun Cloudy, Rain
Target: FWM CLP. Agae, Natives, Emergent, Other
☐ Treated entire permitted area ☐ Treated entire developed area ☐ Other
*For reapplication for future use. If reapplying, all herbicide foliar spray should be performed as follows

1.74 acres mil soil

Renovate OTF @ 270/ac

Applied 120 lbs

N
△

.4 Miles

PIKE BAY
~450 Surface Acres (as shown)
Houghton County
Chassell Township
<small>Professional Land Management, P.O. Box 102, Chassell, MI 49816 Phone: (907) 552-4331</small>

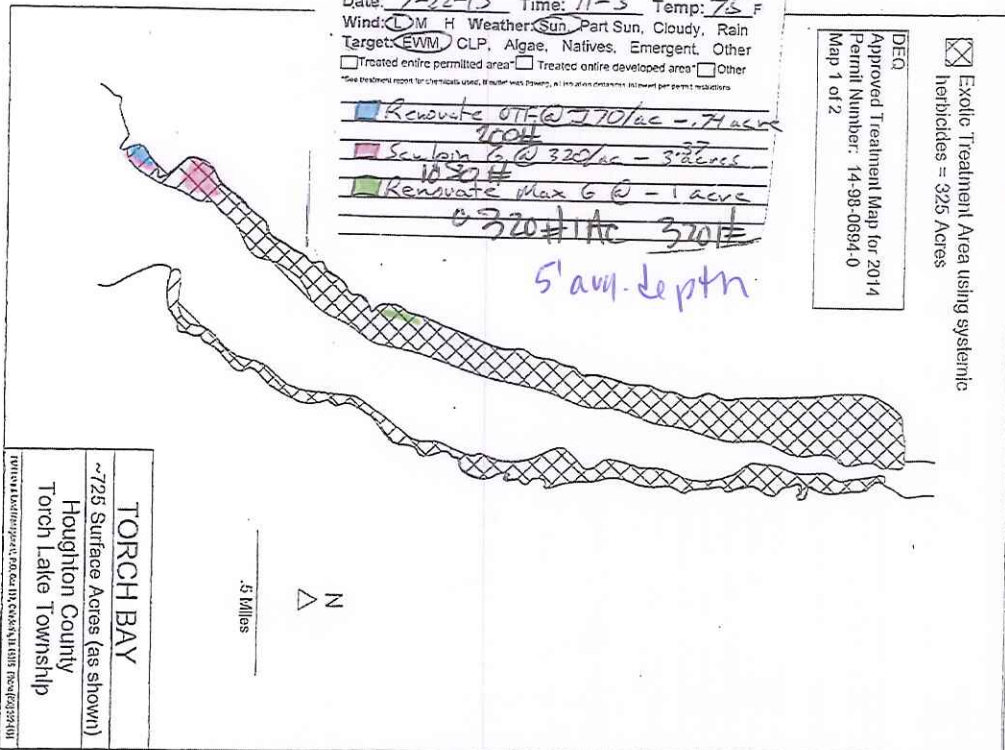
REVISED

☒ Exotic Treatment Area using systemic herbicides = 325 Acres

DEQ
Approved Treatment Map for 2014
Permit Number: 14-98-0694-0
Map 1 of 2

Date: 7-22-15 Time: 11-3 Temp: 75°F
Wind: DM H Weather: Sun Part Sun, Cloudy, Rain
Target: EWM CLP, Algae, Natives, Emergent, Other
☐ Treated entire permitted area ☐ Treated entire developed area ☐ Other
*See treatment report for chemicals used, application rates, and other permit requirements

Renovate OT @ 370/ac - .74 acres
100#
Scrub G @ 320/ac - 3.2 acres
1030#
Renovate Max G @ - 1 acre
0320# 1 Ac 320#
5' avg. depth



TORCH BAY
~725 Surface Acres (as shown)
Houghton County
Torch Lake Township
Torch Lake Township, PO Box 115, Torch Lake, MI 49782-0115

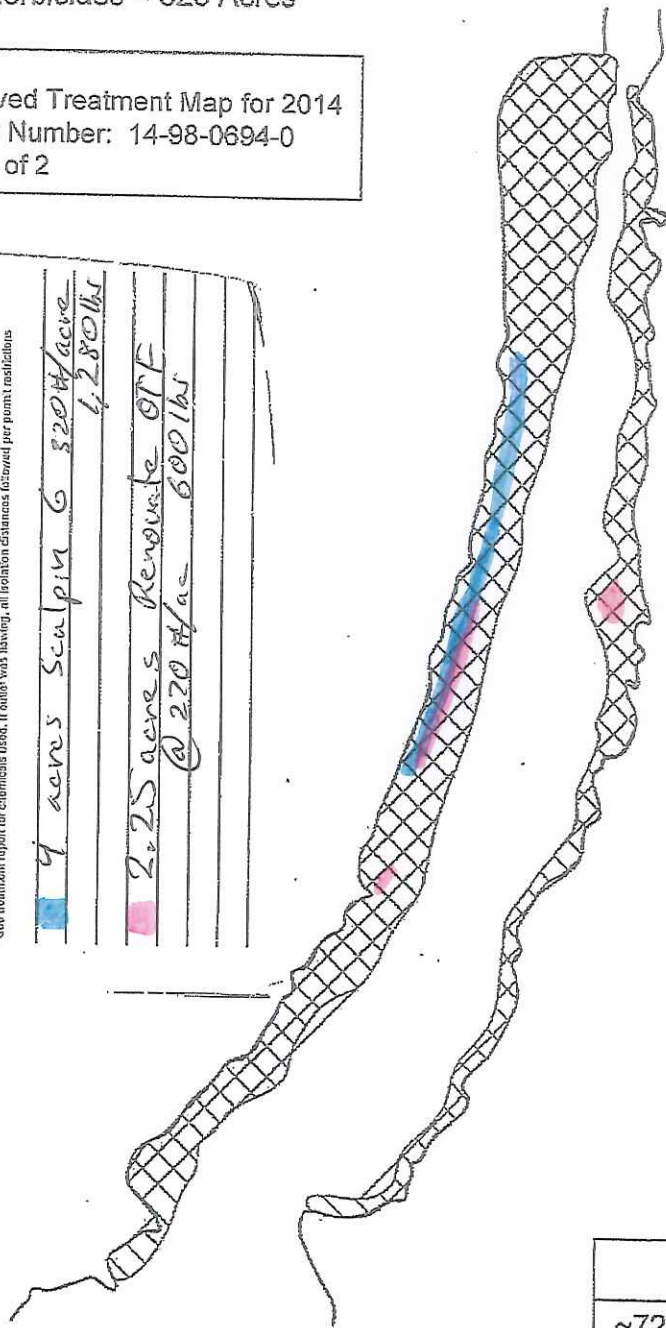
☒ Exotic Treatment Area using systemic herbicides = 325 Acres

DEQ
Approved Treatment Map for 2014
Permit Number: 14-98-0694-0
Map 1 of 2

Date: 8-18-2015 Time: 12-3 Temp: 70°F
Wind: L M H Weather: Sun (Part Sun) Cloudy, Rain
Target: (EWM) CLP, Algae, Natives, Emergent, Other
☐ Treated entire permitted area* ☐ Treated entire developed area* ☐ Other
*See treatment report for chemicals used. If outlet was flowing, all isolation distances followed per permit restrictions

4 acres Sculpin 6 820#/acre
4,280 lbs

2.25 acres Renouate OTF
@ 270 #/ac 600 lbs



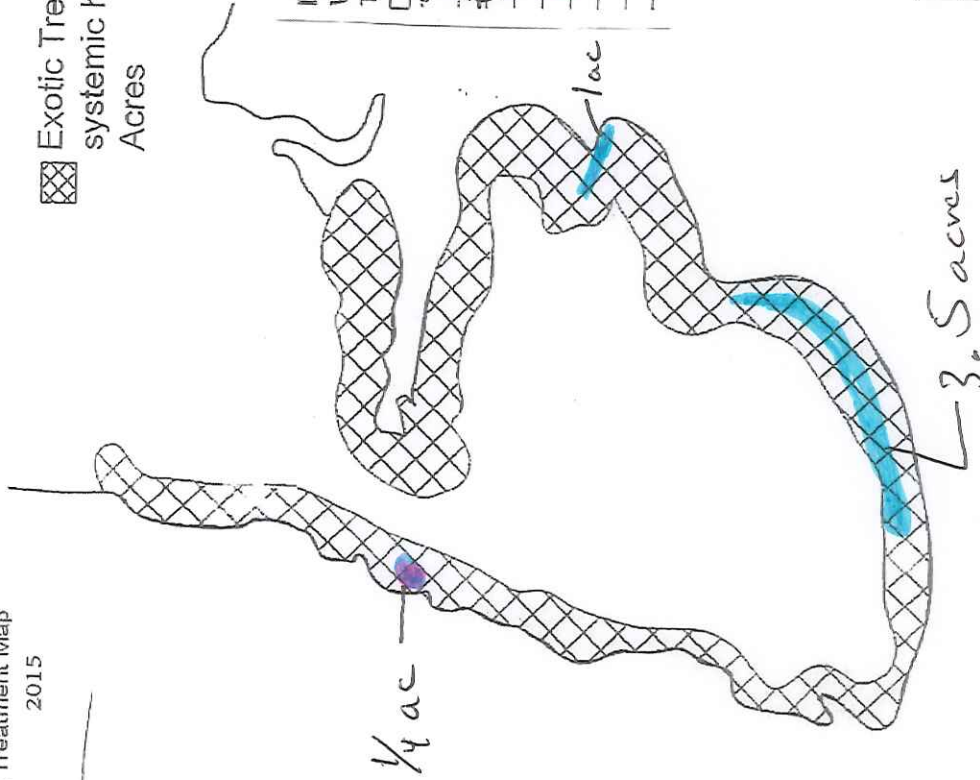
TORCH BAY

~725 Surface Acres (as shown)

Houghton County
Torch Lake Township

PUM Lake & Land Management, P.O. Box 132, Caledonia, MI 49315 Phone (269) 382-4434

 Exotic Treatment Area using
systemic herbicides = 270
Acres



Date: 8-18-15 Time: 8-11 Temp: 60 F
Wind: DM H Weather: Sun, Part Sun, Cloudy, Rain
Target: EW CLP, Algae, Natives, Emergent, Other
☐ Treated entire permitted area ☐ Treated entire developed area ☐ Other
*See treatment report for herbicide used. If not used, all bodiless distances observed per permit notification

Renovate 270#/ac - 1,280 #
~4.75 acres

N
△

.4 Miles

PIKE BAY

~450 Surface Acres (as shown)
Houghton County
Chassell Township

Professional Land Management, P.O. Box 132, Chassell, MI 49816 Phone (800) 562-4234

8067X

☒ Exotic Treatment Area using systemic herbicides = 325 Acres

DEQ

Approved Treatment Map for 2014

Permit Number: 14-98-0694-0

Map 1 of 2

Date: 9-28-15 Time: 11:30-2 Temp: 70°F

Wind: D M H Weather: Sun Part Sun, Cloudy, Rain

Target: EWM, CLP, Algae, Natives, Emergent, Other

☐ Treated entire permitted area ☐ Treated entire developed area ☐ Other

*See treatment plan for chemicals used. If other vegetation, an application document is required per permit restrictions

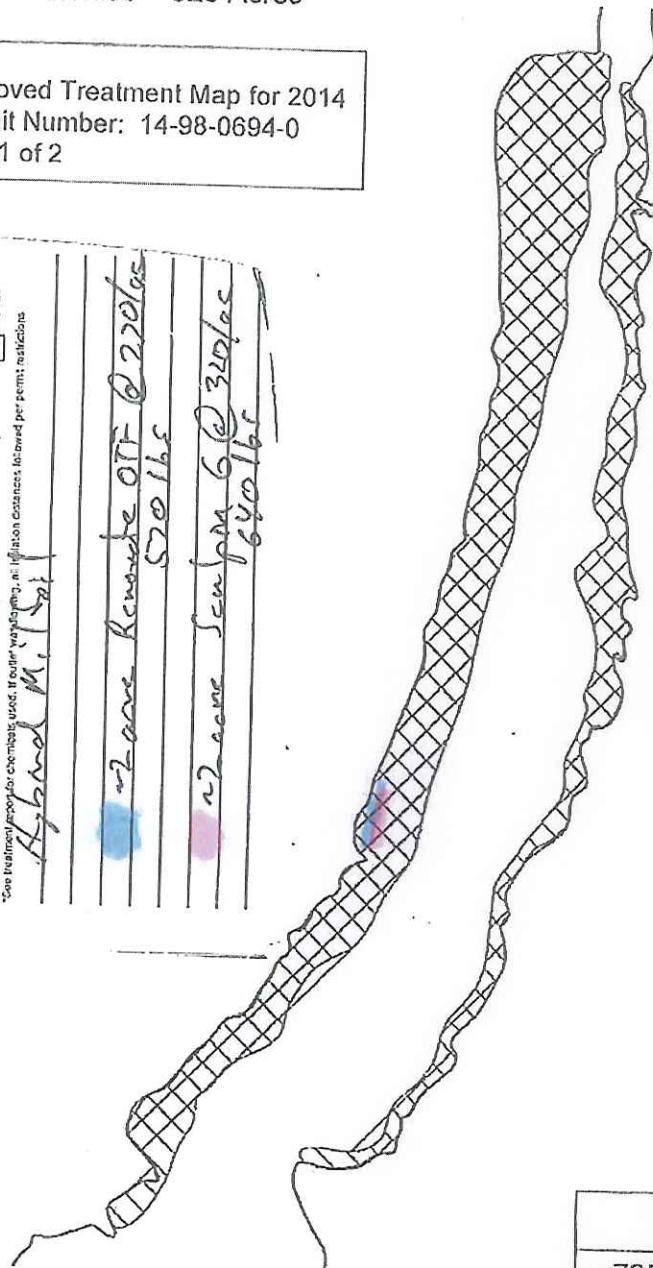
Hybrid M. (Sai)

~2-acre Remnant OTF @ 220/acs

570 lbs

~2-acre Seneca @ 320/acs

640 lbs



N



.5 Miles

TORCH BAY

~725 Surface Acres (as shown)

Houghton County
Torch Lake Township

Wildlife & Land Management, P.O. Box 132, Chaska, MN 55318 Phone (650) 332-4134

PLM Lake & Land Management Corp.



December 3, 2015

Aquatic Nuisance Control
Water Resources Division
MDEQ
P.O. Box 30458
Lansing, MI 48909-7958

RE: Vegetation Surveys, Management Plans and other Reports.

Within the 2015 permit it references several additional items (Vegetation Surveys, Management Plans and other reports) to be included with our annual treatment reports. To fulfill this requirement, PLM Lake & Land Management Corp (PLM) is providing our version of a Lake Management Plan as part of our 2015 Treatment Report when available. PLM provides some of our customers with a "Lake Management Plan" and/or "Results and Recommendations", which includes the basic intent of our management program. Some of these reports are produced at the initiation of our contract/Special Assessment District or at the time of renewal or on an annual basis. Many lakes also work with an independent consultant which provides the customer the Lake Management Plan. If a consultant is involved, PLM does not have the right to submit their confidential information. Confidential Business Information (CBI) not only applies to private consultants; many activities, documents and management recommendations that PLM provides to their customers would also be viewed as CBI. In addition to CBI, many of the services that PLM offers our clients take place in different formats of communication; email, phone calls, face to face, etc.

Many permits already specifically require Aquatic Vegetation Assessment Surveys (AVAS) if Sonar is being used or if there is a unique necessity for a particular waterbody. If proposing a lake wide treatment or evaluation treatment, we are required to provide a defined Lake Management Plan. PLM understands that unique situations and/or questions may arise regarding the management activities, plant communities, water quality which may require additional communication and sharing of specific data. If these situations occur, as in the past, please just let us know and we will provide you any support information that we have and/or we will obtain the information for you.

Please contact us if you have any questions and/or need any additional information.

Sincerely,

A handwritten signature in dark ink, appearing to read "J. Broekstra".

Jason Broekstra, Biologist
Vice President of Great Lake Operations
PLM Lake & Land Management Corp