



Lakeland Restoration Services, LLC
78 E River Spur Rd, Priest River, ID 83856
Phone/Fax: (208) 448-2222
www.lakelandrs.com

2014 MOSES LAKE AQUATIC INVASIVES CONTROL USING HERBICIDE
Moses Lake Irrigation & Rehabilitation District
Moses Lake, Washington

FINAL REPORT



Introduction

Lakeland Restoration Services, LLC (LRS) was contracted by MLIRD an aquatic herbicide treatment in the continued effort to control aquatic invasive nuisance pond weeds specifically, curly leaf pond weed and horned pondweeds. These weeds in Moses Lake create numerous problems in the shallow lake. Carp feed and roll in plants creating floating mats creating hazards to boating, swimming and recreation. Large volumes of decaying plants reduce oxygen levels for a good fish habitat.

Because of prevailing west winds, plant material blows into Parker Horne and other high use areas in the city and surrounding community.

Eurasian Water Milfoil will also be controlled with this application. At the time of treatment, no identifiable areas of EWM was noted. Although some resurgence was noted during the 2014 fall survey (see separate survey report).

Ongoing nuisance and invasive pondweed control has taken place since 2012. In 2010 and 2011, 680 acres of EWM had been successfully controlled.

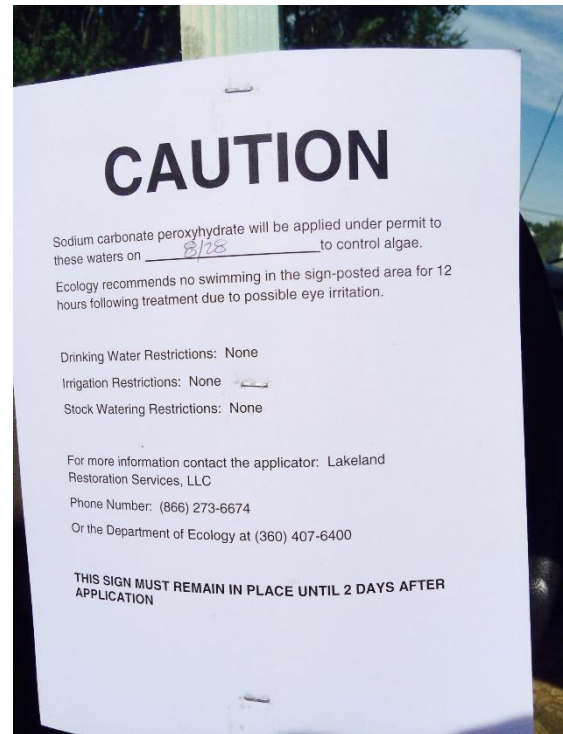
Algaecide Treatments

Since 2010, an active problem to control algae in high use areas has taken place. Areas with low water exchange such as “the fill”, Parker Horne, and Mont Lake have been areas of target treatments with Phycomycin at 100 # per acre. Blue Heron Park and Connelly Park have also been treated on a regular basis to control algae, thereby reducing outbreaks of swimmers itch and proving higher quality water for swimming and recreation.

Public & Agency Notifications/Shoreline Posting

The following is a list of notifications that were delivered as required by the Washington State Department of Ecology Aquatic Plant and Algae Management General Permit #WAG994180:

- A Business and Resident Notice was mailed to all property owners within ¼ mi. of all treatment areas on June 6th, 2014 (attached – see Appendix A).
- Pre/Post Treatment reports were provided to the Department of Ecology (attached – see Appendix B).
- Shoreline Notices were printed on white paper and posted (Appendix C). Signs were posted facing the water and the shore and were placed on each private or public property within 10 feet of shoreline, within 400 feet of the treatment area, and within every 100 feet of the shoreline. Signs were removed after all applicable restrictions were lifted.
- Public Access signs, 2 feet by 3 feet in size were posted at each public access area along with a 8 ½ x 11 map showing the reader's location and the treatment areas in both English and Spanish (Notice attached – see Appendix D). Signs were removed after all applicable restrictions were lifted.



Public Outreach

The MLIRD began educational outreach when the Moses Lake EWM control project was started in 2008. After the survey was conducted, survey results and maps were used at meetings to plan for the control project and, as a teaching tool for the public and at District Board meetings.

As the control project planning and implementation progressed, the educational tools put into place included:

- **Internet:** A LRS website project page was posted at www.lakelandrs.com, dedicated specifically to the Moses Lake invasive and nuisance aquatic and algae weed control project. The page included information about how the project would proceed, what the public could expect in the way of restrictions, the kind of herbicide being used and maps of the lake showing where herbicide treatment would occur.
- **Email:** An email contact address, info@lakelandrs.com was available, giving the public a means to ask questions directly of the contractor and irrigation district. These emails were routed to a LRS representative that returned the answer via email or phone call if requested by the customer.

- **Phone:** A toll-free, dedicated phone number (877-273-6674) was available which gave the public pre-recorded information about the project. Information became available for the Moses Lake project on June 6th, 2014. The number allowed customers to leave a message, and a return call was made by a LRS representative to answer any questions or concerns.

Product Delivery/Distribution

Product was supplied and delivered as follows:

- Helena Chemical supplied the herbicides and algaecide for this project. Product was delivered to the LRS warehouse at 932 A Wheeler Rd. Moses Lake, WA.

Personnel

The following personnel were present at different times for this project:

- David Kluttz – License # 66448 – Applicator/Airboat Pilot
- Jake Nesbitt – License #88023 – Applicator/Airboat Pilot
- Jim Pouge - Mixer/Loader Cert. – Mixer/Loader/Airboat Pilot
- Cathy Allen – Mixer/Loader Cert. – Mixer/Loader/ Shoreline Posting
- Jessie Griffin – Mixer/Loader Cert. – Mixer/Loader/ Shoreline Posting
- Jalen Griffin – Mixer/Loader Cert. – Mixer/Loader/ Shoreline Posting
- Kiler Kenison - Mixer/Loader Cert. – Mixer/Loader/ Shoreline Posting



Product Information

The following table outlines the average depth, total surface acres, and amount of herbicides applied by treatment area (treatment maps attached – see Appendix E):

2014 MOSES LAKE					
TREATMENT					
Area	Avg. Depth	Surface Acres	Aquathol (gallons)	Diquat @ 1.9 GPA(gallons)	Diquat @ 1 GPA(gallons)
1	15	9.42	268.0	19.0	
2_1	4	10.36	79.0		10.0
2_2	4	9.84	75.0		10.0
3_1	5	11.97	114.0		11.0
3_2	5	8.55	81.0		9.0
3_3	5	8.18	78.0		8.0
4	4	8.72	66.0		9.0
5_1	5	8.51	80.0		8.0
5_2	5	10.05	95.0		10.0
5_3	5	8.03	76.0		8.0
5_4	5	7.61	72.0		8.0
6_1	5	9.04	86.0		9.0
6_2	5	9.74	93.0		10.0
			1263.0	19.0	110.0

Application rates per area:

Area 1	Aquathol	1.9 Gal/Acre Foot
	Diquat	1.9 Gal/Acre
Area 2	Aquathol	1.9 Gal/Acre Foot
	Diquat	1 Gal/Acre
Area 3	Aquathol	1.9 Gal/Acre Foot
	Diquat	1 Gal/Acre
Area 4	Aquathol	1.9 Gal/Acre Foot
	Diquat	1 Gal/Acre
Area 5	Aquathol	1.9 Gal/Acre Foot
	Diquat	1 Gal/Acre
Area 6	Aquathol	1.9 Gal/Acre Foot
	Diquat	1 Gal/Acre

†Total acres treated were determined by encompassing tracks. This process was accomplished by importing tracks recorded during the application process using GPS technology into Arcview GIS.

*Changes in acreage or product occurred due to boat drift, submerged obstacles, mapping discrepancies, or changes made at the request of the Project Manager.

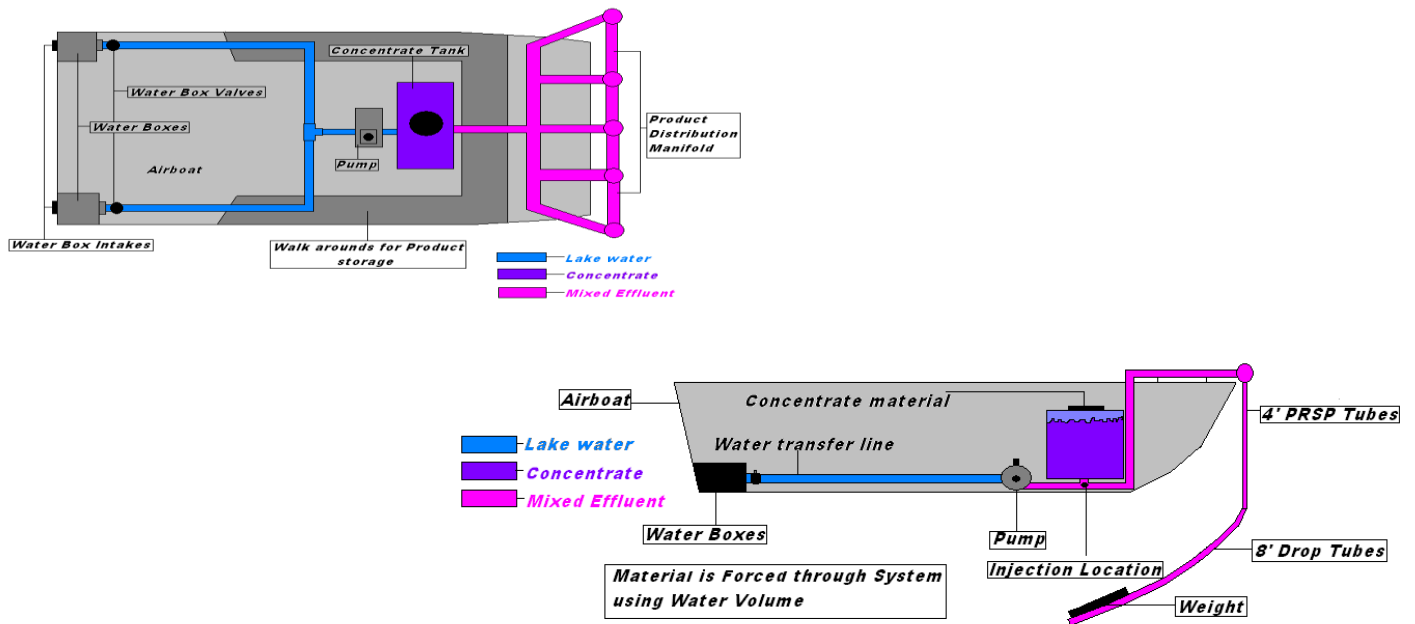
Treatment Methodology

The application of Aquathol and Diquat was accomplished using 1 airboat using the following methodology:



Herbicide was applied at an average speed of 5 mph using a manifold boom style sub-surface injection system that is attached to the airboat (pictures at right/diagram below). The collection side of the system gathers lake water from built in water boxes at the rear of the boat using a high volume, close tolerance pump powered by a 5hp Honda motor. The pump generates pressure through a manifold system causing a venturi effect, which pulls the concentrate from the tank, thereby mixing it with the lake water to be injected directly into the water column through the manifold boom. The boom is 8' wide and has 5 drop tubes, each 4' long.

Diagram A-1: Liquid Injection System – top view/side view



Herbicide was continually poured from each 2.5 gallon container into a 25 gallon tank ensuring a consistent application. Each container was triple-rinsed in the treatment area during the treatment, rendered incapable of reuse, and stored at the Lakeland facility for recycling. Jugs were then taken to local AG airport for storage to be recycled.

Equipment

The following equipment was used for this project:

Herbicide Treatments

- 16-foot Airboat with 454 ci 550-hp motor capable of carrying 2,500-lb payload
- Liquid injection system with a 25-gallon tank and five 4-foot subsurface injection nozzle system
- Garmin GPS equipment used to plot and track treatments
- Arcview (GIS) to provide a means to map treatment areas, analyze results, and provide ArcGIS compatible shapefiles
- 18-foot tractor trailer for moving product
- 2014 Ford F150 and 2008 Ford F350 used to haul equipment and supplies



Algaecide Treatments

- 16 Ft. airboat w/364 c, 550 HP motor
- Skid Steer with pallet forks
- 18 foot airboat

Logs, Maps, and Tracking

The entire treatment was monitored with the use of Global Positioning System (GPS) technology. Treatment routes were pre-planned using Arcview GIS, and pre-loaded into 2 GPS devices per treatment vessel.



Following the treatment, tracks were downloaded into Arcview, and analyzed for thoroughness of the treatment.

A WSDA approved Pesticide Application Record was completed for each treatment day as required (attached – see Appendix F). These records will be retained for 7 years with the project file.

Algaecide Treatments

On June 30, 2014 LRS performed a treatment of 10.5 on Moses Lake to manage Blue Green and Green Algae blooms with algaecides as directed by MLIRD and again on August 27th and 28th, 2014 near the Blue Heron and Parker Horne area a total of 28 acres were treated. Phycomycin was applied at a rate of 100 pounds per acre resulting in a total of 3,800 pounds of Phycomycin used in treatments.



Parker Horne Algaecide Treatment



Summary

With EWM populations have been severely reduced in previous years, pondweed and algae control is the top priority of this program in 2014.

High nutrient and sediment loading has occurred in Moses Lake, primarily through Crab Creek which runs through Moses Lake. Parker Horn has been a top priority for herbicide and algaecide treatments because of its proximity to down town. All other treatments have been associated with high use areas, such as parks, boat ramps and swimming areas. This approach has improved the water quality.

Combinations of herbicide at moderate rates facilitate the successful control of target plants. Diquat appears to have some algaecide properties when used for Pond Weed control early in the season.

Phycomycian is effective for most algae, including Blue green algae. Hydrothol may be considered. I would recommend testing the product for future use in Moses Lake as well.

6000 letters were sent out to announce application. The public has responded well and has been receptive to the treatments since 2010.

From the reports I have heard, the warm water fishery, specifically Bass and Walleye numbers and size have increased since the commencement of this treatment program.



The "Fill" after treatment 2014

Appendix A

Business and Residential Notice



Herbicide/Algaecide Treatment Business and Residential Notice

Distribution Date: June 6, 2014

Moses Lake will be treated with aquatic herbicide/*algaecide on/or **between June 23, 2014 to June 27, 2014.**

*Algaecide treatments will occur on an as needed basis.

In order to help prevent fragmentation, **please DO NOT cut, rake, or hand-pull plants prior to treatment.**

This application will involve the use of airboats. Please remove items from docks such as lawn chairs, flower pots, personal/recreational devices, etc.

Product(s) planned for use: Aquathol K, Diquat

Algaecide: Phycomycin

Active ingredient(s): (Dipotassium salt of endothall),(Diquat dibromide [6,7-dihydrodipyrido (1,2-a:2'1'-c) pyrazinediium dibromide])

Algaecide: (Sodium Carbonate Peroxyhydrate)

It has been advised that no swimming occur within the treated area(s) during or for 24 hours following herbicide treatment. It has been advised that no swimming occur within the treated area(s) during or for 2 hours following algaecide treatment.

If you are using the lake itself as a potable, irrigation and/or domestic or livestock water source, please contact Lakeland Restoration Services, LLC to determine if any restrictions apply: (877) 273-6674 or info@lakelandrs.com

Details of treatment time and the end of use restrictions will be announced at www.lakelandrs.com.

Fishing: no restriction.

Location of Treatment(s): Specific sites on Moses Lake.

Signs will be posted treated and potentially affected areas prior to application. The signs will describe any water use restrictions or advisories.

If you would like to request additional notification prior to treatment, or have further questions, please contact Lakeland Restoration Services, LLC at (877) 273-6674 or info@lakelandrs.com.

This herbicide treatment is regulated under a permit issued by the Washington State Department of Ecology.
Permit No. WAG994180

Moses Lake Irrigation and Rehabilitation District



June 16, 2014

To: Property Owners on or surrounding Moses Lake, Blue Lake, Alkali Lake, and Lenore Lake

Aquatic Treatments

MLIRD has been very active since 2008 reducing aquatic invasive species and algae, making Moses Lake a great lake to live and recreate on. Much has been accomplished in the area of beautification and greater public usage in the past and now it is time for the 2014 treatments.

MLIRD has contracted Lakeland Restoration Services, LLC to perform the aquatic herbicide treatment of invasive species as well as any algae that may decide to grow in Moses Lake this year.

The aquatic herbicide treatments for Moses Lake will occur during the week of June 23 - 27, 2014.

The permitting process and notification system of the State of Washington is being followed with the enclosed notification. See "Aquatic Herbicide/Algaecide Treatment Business and Residential Notice" attached.

- **If you are using the lake itself as a potable and/or irrigation water source, please contact Lakeland Restoration Services LLC to determine if any restrictions apply for these treatments.**

Details of treatment times will be announced at www.lakelandrs.com. If you have any questions, please refer to the website or contact the applicator directly at (1-877-273-6674).

Algaecide Treatments

Algaecide Treatments will be applied only when needed.

The permitting process and notification system of the State of Washington is being followed with the enclosed notification. See "Aquatic Herbicide/Algaecide Treatment Business and Residential Notice" attached.

**Moses Lake Irrigation and Rehabilitation District, P O Box 98, Moses Lake WA 98837
Phone: 509-765-8716 Fax: 509-764-8425**

- **There is no restriction for swimming, fishing, irrigation or consumption.**

Details of treatment times will be announced at www.lakelandrs.com. If you have any questions, please refer to the website or contact the applicator directly at (1-877-273-6674).

Riparian Treatments

Moses Lake Irrigation & Rehabilitation District (MLIRD) has entered into an inter-local agreement with the Department of Natural Resources and partnered with the Grant County Noxious Weed Board in an effort to eradicate designated invasive noxious weeds within the confines of Grant County as required by state law. With the management tools in place MLIRD is managing the project in your local area.

MLIRD has contracted Lakeland Restoration Services, LLC to perform herbicide treatments in a continued effort to control riparian invasive nuisance plants (Phragmites, Yellow Flag Iris, Purple Loose Strife, Reed Canary Grass and Tree of Heaven).

The riparian treatment for the Moses Lake area will occur during the week of July 8 - 11, 2014.

The riparian treatment for Blue Lake, Alkali Lake and Lenore Lake will occur on July 7, 2014 and the week of July 21-25, 2014.

The permitting process and notification system of the State of Washington is being followed with the enclosed notification. See "Riparian Herbicide Treatment Business and Residential Notice" attached.

- **There is no restriction for swimming, fishing, irrigation or consumption.**

Details of treatment times will be announced at www.lakelandrs.com. If you have any questions, please refer to the website or contact the applicator directly at (877-273-6674).

We appreciate your support in helping to make these projects a success.

Kindest Regards,

Julie H. Smith
Acting General Manager

/jhs

Appendix B
Pre/Post Treatment Notification

DEPARTMENT OF ECOLOGY

Aquatic Treatment Email Form

Email to: JOJE461@ecy.wa.gov, JRYF461@ecy.wa.gov

From: Lakeland Restoration Services, LLC

Office Phone No: 208-448-2222

Pre-Treatment Notification

Week of Treatment June 30, 2014 to July 2, 2014

Water body name	County	Location where treatment will begin	Chemicals/products proposed for use	Targeted plants* & algae	Proposed date & treatment start time
Moses Lake	Grant	Boat Launch	Phycomycin	Blue Green Algae	June 30, 2014 - 10am

* This should either be the full common name (i.e., Eurasian watermilfoil), or the genus and species of targeted plants (i.e., *Myriophyllum spicatum*), or genus where species is not known (i.e., *Potamogetons* or native *Elodea*)

Additional Information: _____

Email Form

Email to: JOJE461@ecy.wa.gov, JRYF461@ecy.wa.gov

From: Lakeland Restoration Services
Company: Lakeland Restoration Services
Cell Phone No: 208-448-2222

Post-Treatment Notification

Week of Treatment: June 30, 2014

Water body name	County	Chemicals/products used	Targeted plants* & algae	Acres treated	Amount of product applied (lbs. or gallons)	Date treatment occurred
Moses Lake – Connolly Park	Grant County	Phycomycin	Blue Green Algae	10.5	1050lbs	June 30, 2014

* This should either be the full common name (i.e., Eurasian watermilfoil), or the genus and species of targeted plants (i.e., *Myriophyllum spicatum*), or genus where species is not known (i.e., *Potamogetons*)

Additional Information: _____

Knowingly submitting false information shall result in permit termination.

DEPARTMENT OF ECOLOGY

Aquatic Treatment Email Form

Email to: JOJE461@ecy.wa.gov,

From: Lakeland Restoration Services, LLC

Office Phone No: 208-448-2222

Pre-Treatment Notification

Week of Treatment August 27, 2014

Water body name	County	Location where treatment will begin	Chemicals/products proposed for use	Targeted plants* & algae	Proposed date & treatment start time
Moses Lake	Grant	Blue Heron Area	Phycomycin	Blue Green Algae	August 27, 2014 @ 7:00PM

* This should either be the full common name (i.e., Eurasian watermilfoil), or the genus and species of targeted plants (i.e., *Myriophyllum spicatum*), or genus where species is not known (i.e., *Potamogetons* or native *Elodea*)

Additional Information: _____

Post-Treatment Notification

Week of Treatment: **August 27, 2014**

Water body name	County	Chemicals/products used	Targeted plants* & algae	Acres treated	Amount of product applied (lbs. or gallons)	Date treatment occurred
Moses Lake	Grant	Phycomycin	Blue Green Algae	28	2800	Aug. 27 and Aug 28

* This should either be the full common name (i.e., Eurasian watermilfoil), or the genus and species of targeted plants (i.e., *Myriophyllum spicatum*), or genus where species is not known (i.e., *Potamogetons*)

Additional Information: _____

Knowingly submitting false information shall result in permit termination.

DEPARTMENT OF ECOLOGY

Aquatic Treatment Fax Form

To: Jonathon.jennings@ecy.wa.gov, Jeremy.ryf@ecy.wa.gov

From: Company: Lakeland Restoration Services, LLC

208-448-2222

Pre-Treatment Notification

Week of Treatment (date and year): June 23, 2014

Water body name	County	Location where treatment will begin	Chemicals/products proposed for use	Targeted plants* & algae	Proposed date & treatment start time
Moses Lake	Grant	Boat Launch	Aquathol K, Diquat	Eurasian watermilfoil	June 23, 2014 - 8am

* This should either be the full common name (i.e., Eurasian watermilfoil), or the genus and species of targeted plants (i.e., *Myriophyllum spicatum*), or genus where species is not known (i.e., *Potamogetons* or native *Elodea*)

Post-Treatment Notification

Week of Treatment: June 23, 2014 to June 25, 2014

Water body name	County	Chemicals/products used	Targeted plants* & algae	Acres treated	Amount of product applied (lbs. or gallons)	Date treatment occurred
Moses Lake	Grant	Aquathol K	Eurasian watermilfoil	130	1263 gallons	June 23 to June 25, 2014
		Diquat	Eurasian watermilfoil	130	129 gallons	

* This should either be the full common name (i.e., Eurasian watermilfoil), or the genus and species of targeted plants (i.e., *Myriophyllum spicatum*), or genus where species is not known (i.e., *Potamogetons*)

Additional Information: _____

Knowingly submitting false information shall result in permit termination.

Appendix C
Shoreline Postings

CAUTION

Sodium carbonate peroxyhydrate will be applied under permit to these waters on Between June 23 and June 30 2014 to control algae.

Ecology recommends no swimming in the sign-posted area for 12 hours following treatment due to possible eye irritation.

Drinking Water Restrictions: None

Irrigation Restrictions: None

Stock Watering Restrictions: None

For more information contact the applicator: Lakeland
Restoration Services, LLC

Phone Number: (877) 273-6674

Or the Department of Ecology at (360) 407-6400

**THIS SIGN MUST REMAIN IN PLACE UNTIL 2 DAYS AFTER
APPLICATION**

CAUTION

The aquatic herbicides Aquathol K, Diquat will be applied under permit to these waters on **June 23rd to June 27th 2014** to control aquatic vegetation.

Ecology recommends no swimming in the sign-posted area for 24 hours following treatment due to possible eye irritation.

Drinking Water Restrictions: **7 days**

Irrigation Restrictions: **3 days**

Fishing Restriction: **None**

Stock Watering Restrictions: **Do not use water from treatment area for 7 days.**

For more information contact the applicator: Lakeland Restoration Services, LLC. Phone number: (877) 273-6674

The Department of Ecology regulates this activity under an NPDES permit. For information about the permit, contact Ecology Phone number: 360-407-6400

THIS SIGN MUST REMAIN IN PLACE UNTIL 2 DAYS AFTER APPLICATION

PRECAUCIÓN

Los herbicidas acuáticos Aquathol K, Diquat se aplicará bajo permiso a estas aguas el **23 de junio – 27 de junio** para controlar la vegetación acuática.

Ecología no recomienda nadar en la zona señalado por 24 horas después del tratamiento debido a la irritación ocular posible.

Restricciones de agua potable: **no use agua de la zona de tratamiento durante 7 días.**

Restricciones de riego: **3 días**

Restricción de la pesca: **ninguno**

Restricciones de riego stock: **no use agua de la zona de tratamiento durante 7 días.**

Para obtener más información, póngase en contacto con el aplicador: Lakeland restauración Services, LLC. Número de teléfono: (877) 273-6674

El Departamento de Ecología regula esta actividad bajo un permiso NPDES. Para obtener información sobre el permiso, con número de teléfono de ecología: 360-407-6400

ESTE SIGNO DEBE PERMANECER EN SU LUGAR HASTA 2 DÍAS DESPUÉS DE LA APLICACIÓN

Appendix D
Public Access Posting

CAUTION

Sodium carbonate peroxyhydrate will be applied under permit to these waters on _____ to control algae.

Ecology recommends no swimming in the sign-posted area for 12 hours following treatment due to possible eye irritation.

Drinking Water Restrictions: None

Irrigation Restrictions: None

Stock Watering Restrictions: None

For more information contact the applicator: Lakeland Restoration Services, LLC

Phone Number: (877) 273-6674

Or the Department of Ecology at (360) 407-6400

THIS SIGN MUST REMAIN IN PLACE UNTIL 2 DAYS AFTER APPLICATION

PRECAUCIÓN

Carbonato sódico peroxyhydrate se aplicará bajo permiso a estas aguas on _____ para el control de algas.

Ecología no recomienda nadar en la zona señalizado durante 12 horas después del tratamiento debido a la irritación ocular posible.

Restricciones de agua potable: ninguno

Restricciones de riego: ninguno

Stock restricciones de riego: ninguno

Para obtener más información, póngase en contacto con el aplicador: Lakeland restauración Services, LLC

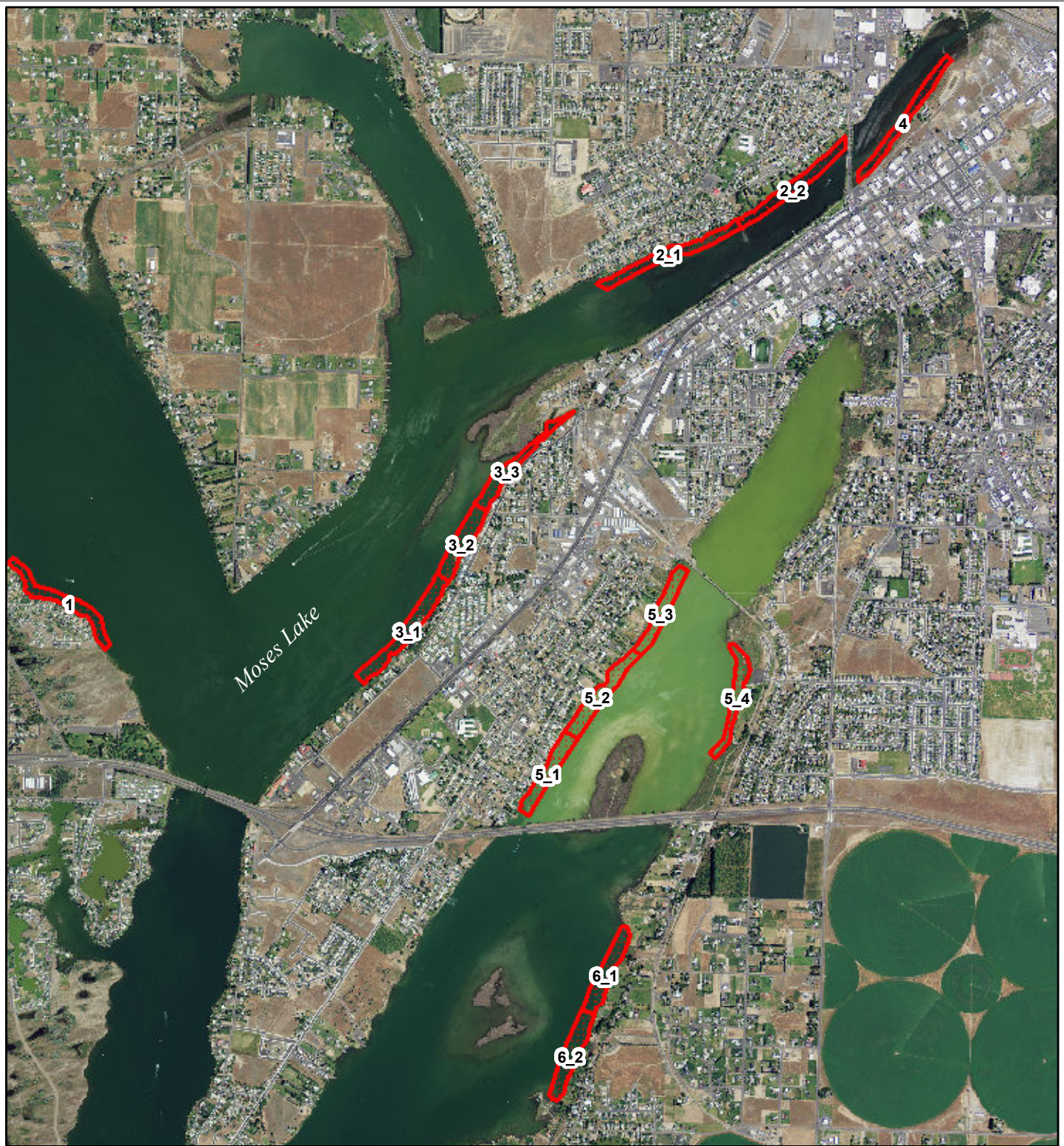
Número de teléfono: (877) 273-6674

O el Departamento de ecología al (360) 407-6400

ESTE SIGNO DEBE PERMANECER EN SU LUGAR HASTA 2 DÍAS DESPUÉS DE LA APLICACIÓN


Appendix E

Map



name	Area_ID	Acres
Cove West	1	9.42
Parker Horn East	2_1	10.36
Parker Horn East	2_2	9.84
Parker Horn West	3_1	11.97
Parker Horn West	3_2	8.55
Parker Horn West	3_3	8.18
Parker Horn North	4	8.72
Pelican Horn North	5_1	8.51
Pelican Horn North	5_2	10.05
Pelican Horn North	5_3	8.03
Pelican Horn North	5_4	7.61
Pelican Horn South	6_1	9.04
Pelican Horn South	6_2	9.74

MLRID Proposed Aquatic Treatment Areas 2014
Total Acres 120

 Proposed Treatment Area



0 0.25 0.5 Miles

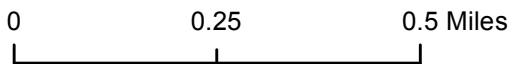


No warranty is made by Lakeland Restoration Services as to the accuracy, reliability, or completeness of these data for individual or aggregate use with other data. Original data was compiled from various sources.

Date: 3/12/2014



Moses Lake



MLRID Algaecide Treatment 2014

August 28, 2014

LEGEND

 GPS Boat Tracks

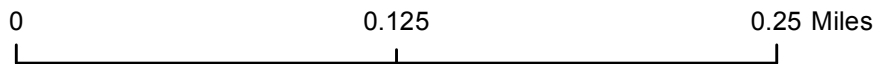
No warranty is made by Lakeland Restoration Services as to the accuracy, reliability, or completeness of these data for individual or aggregate use with other data. Original data was compiled from various sources.

Date: 9/4/2014



Connelly Park



Moses Lake



ConnellyParkTreatment 2014

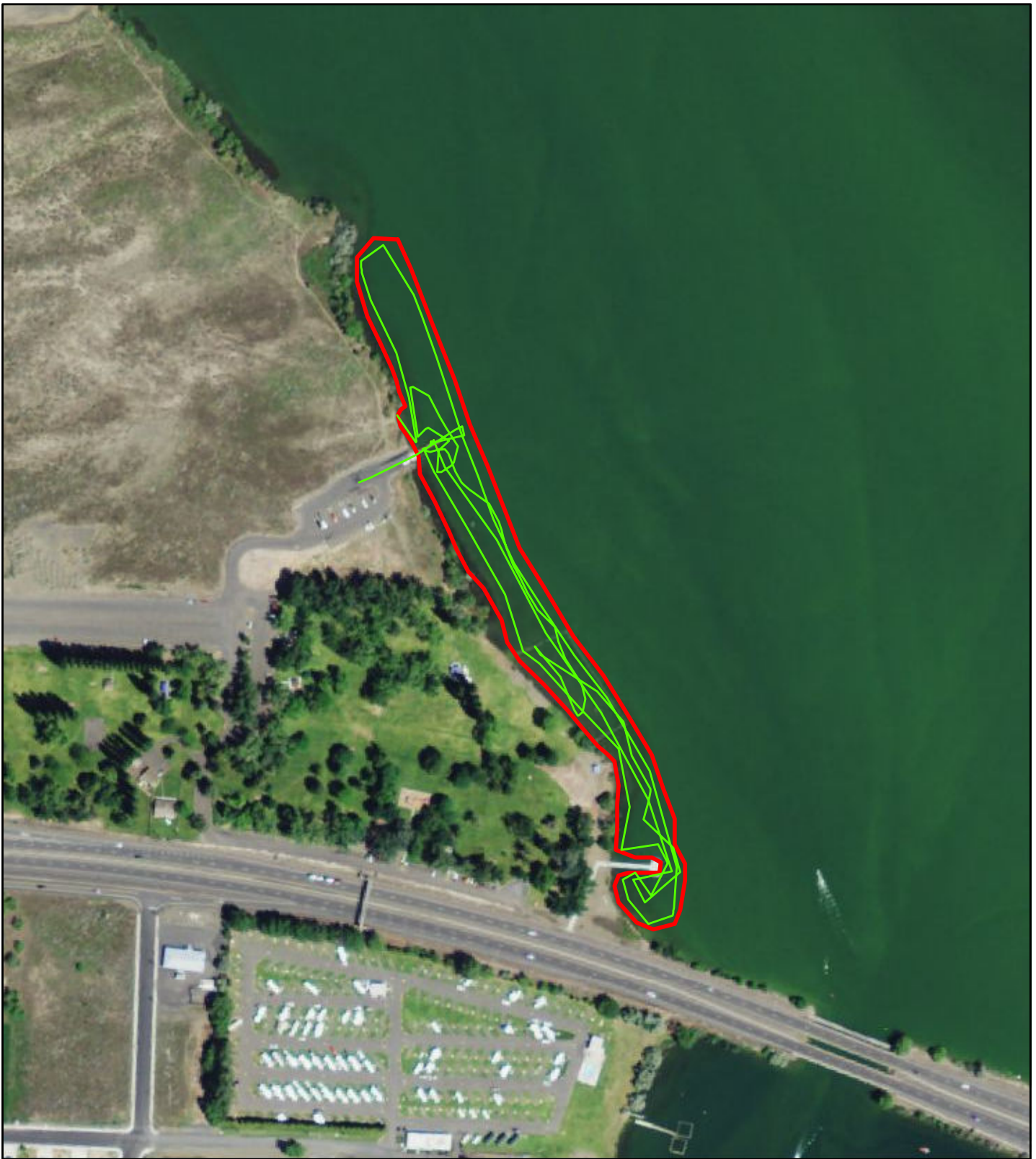
September 5, 2014

LEGEND

-  GPS Boat Tracks
-  Treatment Area, 4.3 ac.

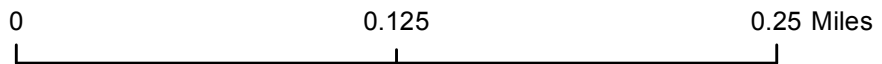
No warranty is made by Lakeland Restoration Services as to the accuracy, reliability, or completeness of these data for individual or aggregate use with other data. Original data was compiled from various sources.

Date: 9/9/2014



Heron Park Treatment 2014

September 5, 2014

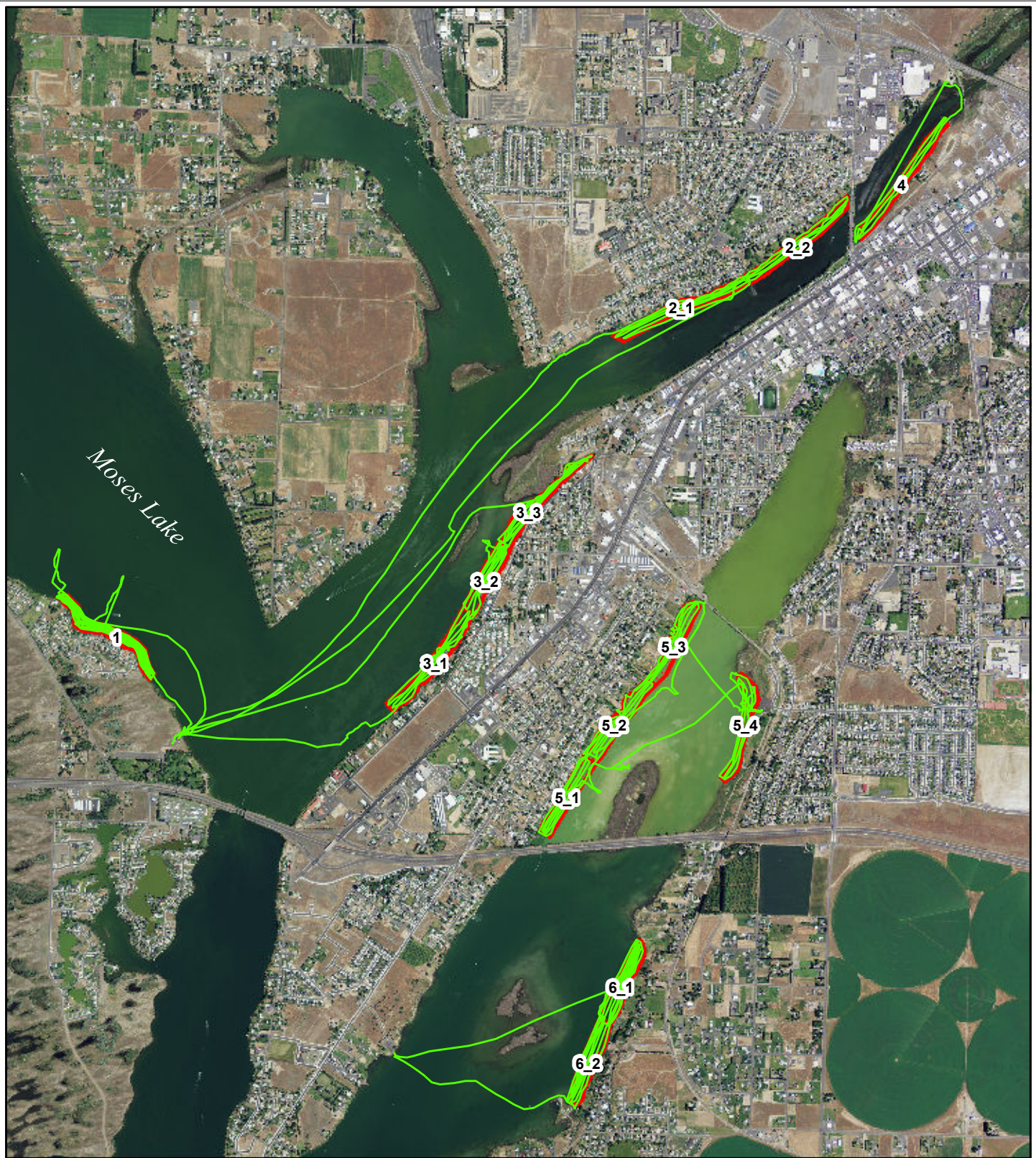


LEGEND

- GPS Boat Tracks
- Treatment Area, 5.4 ac.

No warranty is made by Lakeland Restoration Services as to the accuracy, reliability, or completeness of these data for individual or aggregate use with other data. Original data was compiled from various sources.



Date: 9/9/2014



MLRID Milfoil Treatment 2014


June 23 and 24, 2014

LEGEND

-  GPS Boat Tracks
-  Milfoil Treatment Area



0 0.25 0.5 Miles



No warranty is made by Lakeland Restoration Services as to the accuracy, reliability, or completeness of these data for individual or aggregate use with other data. Original data was compiled from various sources.

Date: 6/26/2014

Appendix F
Pesticide Application Records



PESTICIDE APPLICATION RECORD (Version 1)

Washington State Department of Agriculture
Pesticide Management Division
PO Box 42560
Olympia WA 98504-2560
(877) 301-4555

NOTE: This form must be completed same day as the application and it must be retained for 7 years (Ref. chapter 17.21 RCW)

1. Date of Application - Year: 2014 Month: June Day: 24 Start Time: 8:00am
Stop Time: 6:00pm

2. Name of person for whom the pesticide was applied: Chris Overland
Firm Name (if applicable): Moses Lake Irrigation and Rehabilitation District
Street Address: PO Box 98 City: Moses Lake State: WA Zip: 98837

3. Licensed Applicator's Name (if different from #2 above): David Kluttz License No.: 66448
Firm Name (if applicable): Lakeland Restoration Services, LLC Tel No.: 208-448-2222
Street Address: 78 E River Spur Rd City: Priest River State: ID Zip: 83856

4. Name of person(s) who applied the pesticide (if different from #3 above):
License No(s). If applicable:

5. Application Crop or Site: Moses Lake
6. Total Area Treated (acre, sq. ft., etc.): 65

7. Was this application made as a result of a WSDA Permit? No Yes (If yes, give Permit No.) # WAG994180

8. Pesticide Information (please list all information for each pesticide, including adjuvants (buffer, surfactant, etc.), in the tank mix):

a) Full Product Name	b) EPA Reg. No.	c) Total Amount of Pesticide Applied in Area Treated	d) Pesticide Applied/Acre (or other measure)	e) Concentration Applied
Aquathol	70506-176	631	1 gal / acre ft	
Diquat	180.266	64.5	1 to 2 gal / acre	
			/	
			/	
			/	

9. Address **or exact location** of application. NOTE: If the application is made to one acre or more of agricultural land, the field location must be shown on the map on page two of this form.

See attached Maps

10. Wind direction and estimated velocity (mph) during the application: 8 WNW

11. Temperature during the application: 76-91

12. Apparatus license plate number (if applicable): E818

13. Air Ground Chemigation

14. Miscellaneous Information:



PESTICIDE APPLICATION RECORD (Version 1)

Washington State Department of Agriculture
Pesticide Management Division
PO Box 42560
Olympia WA 98504-2560
(877) 301-4555

NOTE: This form must be completed same day as the application
and it must be retained for 7 years (Ref. chapter 17.21 RCW)

1. Date of Application - Year: 2014 Month: June Day: 30 Start Time: 8:00am
Stop Time: 4:00pm

2. Name of person for whom the pesticide was applied: Chris Overland
Firm Name (if applicable): Moses Lake Irrigation and Rehabilitation District
Street Address: PO Box 98 City: Moses Lake State: WA Zip: 98837

3. Licensed Applicator's Name (if different from #2 above): David Klutz License No.: 66448
Firm Name (if applicable): Lakeland Restoration Services, LLC Tel No.: 208-448-2222
Street Address: 78 E River Spur Rd City: Priest River State: ID Zip: 83856

4. Name of person(s) who applied the pesticide (if different from #3 above): _____
License No(s). If applicable: _____

5. Application Crop or Site: Moses Lake – Connolly Park Blue Green Algae

6. Total Area Treated (acre, sq. ft., etc.): 10.5

7. Was this application made as a result of a WSDA Permit? No Yes (If yes, give Permit No.) # WAG994180

8. Pesticide Information (please list all information for each pesticide, including adjuvants (buffer, surfactant, etc.), in the tank mix):

a) Full Product Name	b) EPA Reg. No.	c) Total Amount of Pesticide Applied in Area Treated	d) Pesticide Applied/Acre (or other measure)	e) Concentration Applied
Phycomycin	68660-9-8959	1050	100 lbs / acre	
			/	
			/	
			/	
			/	

9. Address **or exact location** of application. NOTE: If the application is made to one acre or more of agricultural land, the field location must be shown on the map on page two of this form.

See attached Maps

10. Wind direction and estimated velocity (mph) during the application: W 7 mph

11. Temperature during the application: 61-87

12. Apparatus license plate number (if applicable): E818

13. Air Ground Chemigation

14. Miscellaneous Information:



PESTICIDE APPLICATION RECORD (Version 1)

Washington State Department of Agriculture
Pesticide Management Division
PO Box 42560
Olympia WA 98504-2560
(877) 301-4555

NOTE: This form must be completed same day as the application and it must be retained for 7 years (Ref. chapter 17.21 RCW)

1. Date of Application - Year: 2014 Month: August Day: 27 Start Time: 7:00pm
Stop Time: 10:00pm

2. Name of person for whom the pesticide was applied: Chris Overland
Firm Name (if applicable): Moses Lake Irrigation and Rehabilitation District
Street Address: PO Box 98 City: Moses Lake State: WA Zip: 98837

3. Licensed Applicator's Name (if different from #2 above): David Klutz License No.: 66448
Firm Name (if applicable): Lakeland Restoration Services, LLC Tel No.: 208-448-2222
Street Address: 78 E River Spur Rd City: Priest River State: ID Zip: 83856

4. Name of person(s) who applied the pesticide (if different from #3 above): _____
License No(s). If applicable: _____

5. Application Crop or Site: Moses Lake – Parker Horne Blue Green Algae

6. Total Area Treated (acre, sq. ft., etc.): 14

7. Was this application made as a result of a WSDA Permit? No Yes (If yes, give Permit No.) # WAG994180

8. Pesticide Information (please list all information for each pesticide, including adjuvants (buffer, surfactant, etc.), in the tank mix):

a) Full Product Name	b) EPA Reg. No.	c) Total Amount of Pesticide Applied in Area Treated	d) Pesticide Applied/Acre (or other measure)	e) Concentration Applied
Phycomycin	68660-9-8959	1400	100 lbs / acre	
			/	
			/	
			/	
			/	

9. Address **or exact location** of application. NOTE: If the application is made to one acre or more of agricultural land, the field location must be shown on the map on page two of this form.

See attached Maps

10. Wind direction and estimated velocity (mph) during the application: SSW 7 mph

11. Temperature during the application: 76-94

12. Apparatus license plate number (if applicable): E818

13. Air Ground Chemigation

14. Miscellaneous Information:



PESTICIDE APPLICATION RECORD (Version 1)

Washington State Department of Agriculture
Pesticide Management Division
PO Box 42560
Olympia WA 98504-2560
(877) 301-4555

NOTE: This form must be completed same day as the application
and it must be retained for 7 years (Ref. chapter 17.21 RCW)

1. Date of Application - Year: 2014 Month: August Day: 28 Start Time: 7:00pm
Stop Time: 10:00pm

2. Name of person for whom the pesticide was applied: Chris Overland
Firm Name (if applicable): Moses Lake Irrigation and Rehabilitation District
Street Address: PO Box 98 City: Moses Lake State: WA Zip: 98837

3. Licensed Applicator's Name (if different from #2 above): David Klutz License No.: 66448
Firm Name (if applicable): Lakeland Restoration Services, LLC Tel No.: 208-448-2222
Street Address: 78 E River Spur Rd City: Priest River State: ID Zip: 83856

4. Name of person(s) who applied the pesticide (if different from #3 above): _____
License No(s). If applicable: _____

5. Application Crop or Site: Moses Lake –Blue Heron Blue Green Algae

6. Total Area Treated (acre, sq. ft., etc.): 14

7. Was this application made as a result of a WSDA Permit? No Yes (If yes, give Permit No.) # WAG994180

8. Pesticide Information (please list all information for each pesticide, including adjuvants (buffer, surfactant, etc.), in the tank mix):

a) Full Product Name	b) EPA Reg. No.	c) Total Amount of Pesticide Applied in Area Treated	d) Pesticide Applied/Acre (or other measure)	e) Concentration Applied
Phycomycin	68660-9-8959	1400	100 lbs / acre	
			/	
			/	
			/	
			/	

9. Address **or exact location** of application. NOTE: If the application is made to one acre or more of agricultural land, the field location must be shown on the map on page two of this form.

See attached Maps

10. Wind direction and estimated velocity (mph) during the application: WSW 8mph

11. Temperature during the application: 78-90

12. Apparatus license plate number (if applicable): E818

13. Air Ground Chemigation

14. Miscellaneous Information:



PESTICIDE APPLICATION RECORD (Version 1)

Washington State Department of Agriculture
Pesticide Management Division
PO Box 42560
Olympia WA 98504-2560
(877) 301-4555

NOTE: This form must be completed same day as the application and it must be retained for 7 years (Ref. chapter 17.21 RCW)

1. Date of Application - Year: 2014 Month: June Day: 23 Start Time: 8:00am
Stop Time: 6:00pm

2. Name of person for whom the pesticide was applied: Chris Overland
Firm Name (if applicable): Moses Lake Irrigation and Rehabilitation District
Street Address: PO Box 98 City: Moses Lake State: WA Zip: 98837

3. Licensed Applicator's Name (if different from #2 above): David Klutz License No.: 66448
Firm Name (if applicable): Lakeland Restoration Services, LLC Tel No.: 208-448-2222
Street Address: 78 E River Spur Rd City: Priest River State: ID Zip: 83856

4. Name of person(s) who applied the pesticide (if different from #3 above):
License No(s). If applicable:

5. Application Crop or Site: Moses Lake
6. Total Area Treated (acre, sq. ft., etc.): 65

7. Was this application made as a result of a WSDA Permit? No Yes (If yes, give Permit No.) # WAG994180

8. Pesticide Information (please list all information for each pesticide, including adjuvants (buffer, surfactant, etc.), in the tank mix):

a) Full Product Name	b) EPA Reg. No.	c) Total Amount of Pesticide Applied in Area Treated	d) Pesticide Applied/Acre (or other measure)	e) Concentration Applied
Aquathol	70506-176	631	1 gal / acre ft	
Diquat	180.266	64.5	1 to 2 gal / acre	
			/	
			/	
			/	

9. Address **or exact location** of application. NOTE: If the application is made to one acre or more of agricultural land, the field location must be shown on the map on page two of this form.

See attached Maps

10. Wind direction and estimated velocity (mph) during the application: 7 WNW

11. Temperature during the application: 74-89

12. Apparatus license plate number (if applicable): E818

13. Air Ground Chemigation

14. Miscellaneous Information: